

Appendix A — Treaties

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Submitted by Kevin Fraley from public records Jan. 21, 1997.
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Blackfeet Treaty of Fort Benton, 1855

Articles of agreement and convention made and concluded at the council-ground on the Upper Missouri, near the mouth of the Judith River, in the Territory of Nebraska, this seventeenth day of October, in the year one thousand eight hundred and fifty-five, by and between A. Cumming and Isaac I. Stevens, commissioners duly appointed and authorized, on the part of the United States, and the undersigned chiefs, headmen, and delegates of the following nations and tribes of Indians, who occupy, for the purposes of hunting, the territory on the Upper Missouri and Yellowstone Rivers, and who have permanent homes as follows: East of the Rocky Mountains, the Blackfoot Nation, consisting of the Piegan, Blood, Blackfoot, and Gros Ventres tribes of Indians. West of the Rocky Mountains, the Flathead Nation, consisting of the Flathead, Upper Pend 'Oreille, and Kootenay tribes of Indians, and the Nez Perce tribe of Indians, the said chiefs, headmen and delegates, in behalf of and acting for said nations and tribes, and being duly authorized thereto by them.

ARTICLE 1. Peace, friendship and amity shall hereafter exist between the United States and the aforesaid nations and tribes of Indians, parties to this treaty, and the same shall be perpetual.

ARTICLE 2. The aforesaid nations and tribes of Indians, parties to this treaty, do hereby jointly and severally covenant that peaceful relations shall likewise be maintained among themselves in future; and that they will abstain from all hostilities whatsoever against each other, and cultivate mutual good-will and friendship. And the nations and tribes aforesaid do furthermore jointly and severally covenant, that peaceful relations shall be maintained with and that they will abstain from all hostilities whatsoever, excepting in self-defense, against the following-named nations and tribes of Indians, to wit: the Crows, Assineboins, Crees, Snakes, Blackfeet, Sans Arcs, and Auncepa-pas bands of Sioux, and all other neighboring nations and tribes of Indians.

ARTICLE 3. The Blackfoot Nation consent and agree that all that portion of the country recognized and defined by the treaty of Laramie as Blackfoot territory, lying within lines drawn from the Hell Gate or Medicine Rock Passes in the main range of the Rocky Mountains, in an easterly direction to the nearest source of the Muscle Shell River, thence to the mouth of Twenty-five Yard Creek, thence up the Yellowstone River to its northern source, and thence along the main range of the Rocky Mountains, in a northerly direction, to the point of beginning, shall be a common hunting-ground for ninety-nine years, where all the nations, tribes and bands of Indians, parties to this treaty, may enjoy equal and uninterrupted privileges of hunting, fishing and gathering fruit, grazing animals, curing meat and dressing robes. They further agree that they will not establish villages, or in any other way exercise exclusive rights within ten miles of the northern line of the common hunting-ground, and that the parties to this treaty may hunt on said northern boundary line and within ten miles thereof.

Provided, That the western Indians, parties to this treaty, may hunt on the trail leading down the Muscle Shell to the Yellowstone; the Muscle Shell River being the boundary separating the

1 Blackfoot from the Crow territory.

2
3 And provided, That no nation, band, or tribe of Indians, parties to this treaty, nor any other
4 Indians, shall be permitted to establish permanent settlements, or in any other way exercise,
5 during the period above mentioned, exclusive rights or privileges within the limits of the
6 above-described hunting-ground.

7
8 And provided further, That the rights of the western Indians to a whole or a part of the common
9 hunting-ground, derived from occupancy and possession, shall not be affected by this article,
10 except so far as said rights may be determined by the treaty of Laramie.

11
12 **ARTICLE 4.** The parties to this treaty agree and consent, that the tract of country lying within
13 lines drawn from the Hell Gate or Medicine Rock Passes, in an easterly direction, to the nearest
14 source of the Muscle Shell River, thence down said river to its mouth, thence down the channel
15 of the Missouri River to the mouth of Milk River, thence due north to the forty-ninth parallel,
16 thence due west on said parallel to the main range of the Rocky Mountains, and thence southerly
17 along said range to the place of beginning, shall be the territory of the Blackfoot Nation, over
18 which said nation shall exercise exclusive control, excepting as may be otherwise provided in
19 this treaty. Subject, however, to the provisions of the third article of this treaty, giving the right to
20 hunt, and prohibiting the establishment of permanent villages and the exercise of any exclusive
21 rights within ten miles of the northern line of the common hunting-ground, drawn from the
22 nearest source of the Muscle Shell River to the Medicine Rock Passes, for the period of
23 ninety-nine years.

24
25 Provided also, That the Assiniboins shall have the right of hunting, in common with the Blackfeet,
26 in the country lying between the aforesaid eastern boundary line, running from the mouth of Milk
27 River to the forty-ninth parallel, and a line drawn from the left bank of the Missouri River, opposite
28 the Round Butte north, to the forty-ninth parallel.

29
30 **ARTICLE 5.** The parties to this treaty, residing west of the main range of the Rocky Mountains,
31 agree and consent that they will not enter the common hunting ground, nor any part of the
32 Blackfoot territory, or return home, by any pass in the main range of the Rocky Mountains to the
33 north of the Hell Gate or Medicine Rock Passes. And they further agree that they will not hunt or
34 otherwise disturb the game, when visiting the Blackfoot territory for trade or social intercourse.

35
36 **ARTICLE 6.** The aforesaid nations and tribes of Indians, parties to this treaty, agree and
37 consent to remain within their own respective countries, except when going to or from, or whilst
38 hunting upon, the "common hunting ground," or when visiting each other for the purpose of trade
39 or social intercourse.

40
41 **ARTICLE 7.** The aforesaid nations and tribes of Indians agree that citizens of the United States
42 may live in and pass unmolested through the countries respectively occupied and claimed by
43 them. And the United States is hereby bound to protect said Indians against depredations and
44 other unlawful acts which white men residing in or passing through their country may commit.

45
46 **ARTICLE 8.** For the purpose of establishing traveling thoroughfares through their country, and
47 the better to enable the President to execute the provisions of this treaty, the aforesaid nations
48 and tribes do hereby consent and agree, that the United States may, within the countries
49 respectively occupied and claimed by them, construct roads of every description; establish lines
50 of telegraph and military posts; use materials of every description found in the Indian country;
51 build houses for agencies, missions, schools, farms, shops, mills, stations, and for any other
52 purpose for which they may be required, and permanently occupy as much land as may be
53 necessary for the various purposes above enumerated, including the use of wood for fuel and
54 land for grazing, and that the navigation of all lakes and streams shall be forever free to citizens

1 of the United States.

2
3 **ARTICLE 9.** In consideration of the foregoing agreements, stipulations, and cessions, and on
4 condition of their faithful observance, the United States agree to expend, annually, for the Piegan,
5 Blood, Blackfoot, and Gros Ventres tribes of Indians, constituting the Blackfoot Nation, in addition
6 to the goods and provisions distributed at the time of signing the treaty, twenty thousand dollars,
7 annually, for ten years, to be expended in such useful goods and provisions, and other articles,
8 as the President, at his discretion, may from time to time determine; and the superintendent, or
9 other proper officer, shall each year inform the President of the wishes of the Indians in relation
10 thereto: Provided, however, That if, in the judgment of the President and Senate, this amount
11 be deemed insufficient, it may be increased not to exceed the sum of thirty-five thousand dollars
12 per year.

13
14 **ARTICLE 10.** The United States further agree to expend annually, for the benefit of the aforesaid
15 tribes of the Blackfoot Nation, a sum not exceeding fifteen thousand dollars annually, for ten
16 years, in establishing and instructing them in agricultural and mechanical pursuits, and in
17 educating their children, and in any other respect promoting their civilization and Christianization:
18 Provided, however, That to accomplish the objects of this article, the President may, at his
19 discretion, apply any or all the annuities provided for in this treaty: And provided, also, That the
20 President may, at his discretion, determine in what proportions the said annuities shall be
21 divided among the several tribes.

22
23 **ARTICLE 11.** The aforesaid tribes acknowledge their dependence on the Government of the
24 United States, and promise to be friendly with all citizens thereof, and to commit no depredations
25 or other violence upon such citizens. And should any one or more violate this pledge, and the
26 fact be proved to the satisfaction of the President, the property taken shall be returned, or, in
27 default thereof, or if injured or destroyed, compensation may be made by the Government out of
28 the annuities. The aforesaid tribes are hereby bound to deliver such offenders to the proper
29 authorities for trial and punishment, and are held responsible, in their tribal capacity, to make
30 reparation for depredations so committed.

31
32 Nor will they make war upon any other tribes, except in self-defense, but will submit all matter of
33 difference, between themselves and other Indians, to the Government of the United States,
34 through its agents, for adjustment, and will abide thereby. And if any of the said Indians, parties
35 to this treaty, commit depredations on any other Indians within the jurisdiction of the United
36 States, the same rule shall prevail as that prescribed in this article in case of depredations
37 against citizens. And the said tribes agree not to shelter or conceal offenders against the laws
38 of the United States, but to deliver them up to the authorities for trial.

39
40 **ARTICLE 12.** It is agreed and understood, by and between the parties to this treaty, that if any
41 nation or tribe of Indians aforesaid, shall violate any of the agreements, obligations, or
42 stipulations, herein contained, the United States may withhold, for such length of time as the
43 President and Congress may determine, any portion or all of the annuities agreed to be paid to
44 said nation or tribe under the ninth and tenth articles of this treaty.

45
46 **ARTICLE 13.** The nations and tribes of Indians, parties to this treaty, desire to exclude from
47 their country the use of ardent spirits or other intoxicating liquor, and to prevent their people from
48 drinking the same. Therefore it is provided, that any Indian belonging to said tribes who is guilty
49 of bringing such liquor into the Indian country, or who drinks liquor, may have his or her
50 proportion of the annuities withheld from him or her, for such time as the President may
51 determine.

52
53 **ARTICLE 14.** The aforesaid nations and tribes of Indians, west of the Rocky Mountains, parties
54 to this treaty, do agree, in consideration of the provisions already made for them in existing

1 treaties, to accept the guarantees of the peaceful occupation of their hunting-grounds, east of
2 the Rocky Mountains, and of remuneration for depredations made by the other tribes, pledged to
3 be secured to them in this treaty out of the annuities of said tribes, in full compensation for the
4 concessions which they, in common with the said tribes, have made in this treaty.
5

6 The Indians east of the mountains, parties to this treaty, likewise recognize and accept the
7 guarantees of this treaty, in full compensation for the injuries or depredations which have been,
8 or may be committed by the aforesaid tribes, west of the Rocky Mountains.
9

10 **ARTICLE 15.** The annuities of the aforesaid tribes shall not be taken to pay the debts of
11 individuals.
12

13 **ARTICLE 16.** This treaty shall be obligatory upon the aforesaid nations and tribes of Indians,
14 parties hereto, from the date hereof, and upon the United States as soon as the same shall be
15 ratified by the President and Senate.
16

17 In testimony whereof the said A. Cumming and Isaac I. Stevens, commissioners on the part of
18 the United States, and the undersigned chiefs, headmen, and delegates of the aforesaid nations
19 and tribes of Indians, parties to this treaty, have hereunto set their hands and seals at the place
20 and on the day and year hereinbefore written.
21

22
23 A. Cumming. (L.S.)

Bloods:

24
25 Isaac I. Stevens. (L.S.)

Onis-tay-say-nah-que-im, his x mark. (L.S.)

26
27 ***Piegans:***

The Father of All Children, his x mark. (L.S.)

28
29 Nee-ti-nee, or "the only chief," now called
30 the Lame Bull, his x mark. (L.S.)

The Bull's Back Fat, his x mark. (L.S.)

31
32 Mountain Chief, his x mark. (L.S.)

Heavy Shield, his x mark. (L.S.)

33
34 Low Horn, his x mark. (L.S.)

Nah-tose-onistah, his x mark. (L.S.)

35
36 Little Gray Head, his x mark. (L.S.)

The Calf Shirt, his x mark. (L.S.)

37
38 Little Dog, his x mark. (L.S.)

Gros Ventres:

Bear's Shirt, his x mark. (L.S.)

39
40 Big Snake, his x mark. (L.S.)

Little Soldier, his x mark. (L.S.)

41
42 The Skunk, his x mark. (L.S.)

Star Robe, his x mark. (L.S.)

43
44 The Bad Head, his x mark. (L.S.)

Sitting Squaw, his x mark. (L.S.)

45
46 Kitch-eepone-istah, his x mark. (L.S.)

Weasel Horse, his x mark. (L.S.)

47
48 Middle Sitter, his x mark. (L.S.)

The Rider, his x mark. (L.S.)

Eagle Chief, his x mark. (L.S.)

Heap of Bears, his x mark. (L.S.)

1 **Blackfeet:**
2
3 The Three Bulls, his x mark. (L.S.)
4
5 The Old Kootomais, his x mark. (L.S.)
6
7 Pow-ah-que, his x mark. (L.S.)
8
9 Chief Rabbit Runner, his x mark. (L.S.)
10
11 **Nez Perces:**
12
13 Spotted Eagle, his x mark. (L.S.)
14
15 Looking Glass, his x mark. (L.S.)
16
17 The Three Feathers, his x mark. (L.S.)
18
19 Eagle from the Light, his x mark. (L.S.)
20
21 The Lone Bird, his x mark. (L.S.)
22
23 Ip-shun-nee-wus, his x mark. (L.S.)
24
25 Jason, his x mark. (L.S.)
26
27 Wat-ti-wat-ti-we-hinck, his x mark. (L.S.)
28
29 White Bird, his x mark. (L.S.)
30
31 Stabbing Man, his x mark. (L.S.)
32
33 Jesse, his x mark. (L.S.)
34
35 Plenty Bears, his x mark. (L.S.)
36
37 **Flathead Nation:**
38
39 Victor, his x mark. (L.S.)
40
41 Alexander, his x mark. (L.S.)
42
43 Moses, his x mark. (L.S.)
44
45 Big Canoe, his x mark. (L.S.)
46
47 Ambrose, his x mark. (L.S.)
48
49 Kootle-cha, his x mark. (L.S.)
50
51 Michelle, his x mark. (L.S.)
52
53 Francis, his x mark. (L.S.)
54
55 Vincent, his x mark. (L.S.)

Andrew, his x mark. (L.S.)
Adolphe, his x mark. (L.S.)
Thunder, his x mark. (L.S.)
Piegans:
Running Rabbit, his x mark. (L.S.)
Chief Bear, his x mark. (L.S.)
The Little White Buffalo, his x mark. (L.S.)
The Big Straw, his x mark. (L.S.)
Flathead:
Bear Track, his x mark. (L.S.)
Little Michelle, his x mark. (L.S.)
Palchinah, his x mark. (L.S.)
Bloods:
The Feather, his x mark. (L.S.)
The White Eagle, his x mark. (L.S.)

1	<i>Executed in presence of - -</i>	
2		
3	James Doty, Secretary.	W. Craig, Nez Perce interpreters
4		
5	Alfred J. Vaughan, Jr.	Delaware Jim, his x mark, Nez Perce interpreters
6		
7	E. Alw. Hatch, agent for Blackfeet	
8		Witness, James Doty, Nez Perce interpreters
9	Thomas Adams, special agent Flathead Nation	
10		
11		A Cree Chief (Broken Arm,) his mark
12	R. H. Lansdale, Indian agent Flathead Nation	
13		Witness, James Doty
14	W. H. Tappan, sub-agent for the Nez Perce	
15		A. J. Hoeekeorsg
16	James Bird, Blackfoot interpreters	
17		James Croke
18	A. Culbertson, Blackfoot interpreters	
19		E. S. Wilson
20	Benj. Deroche, Blackfoot interpreters	
21		A. C. Jackson
22	Benj. Kiser, his x mark, Flat Head interpreters	
23		Charles Shucette, his x mark
24		
25	Witness, James Doty, Flat Head interpreters	
26		Christ. P. Higgins
27		A. H. Robie
28	Gustavus Sohon, Flat Head interpreters	
		S. S. Ford, Jr.
29		
30		
31	Ratified Apr. 15, 1856.	
32	Proclaimed Apr. 25, 1856.	
33		

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2 general public without fee or charge of any kind. It is intended that
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5 Submitted by Kevin Fraley from public records Feb. 17, 1997.
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10 ***Nez Perce Treaty of Lapwai, 1863***

11
12
13
14 Articles of agreement made and concluded at the council-ground, in the valley of the Lapwai,
15 Washington Territory, on the ninth day of June, one thousand eight hundred and sixty-three,
16 between the United States of America, by C. H. Hale, superintendent of Indian affairs, and
17 Charles Hutchins and S. D. Howe, U.S. Indian agents for the Territory of Washington, acting on
18 the part and in behalf of the United States, and the Nez Perce Indians, by the chiefs, head-men,
19 and delegates of said tribe, such articles being supplementary and amendatory to the treaty
20 made between the United States and said tribe on the 11th day of June 1855.
21

22 **ARTICLE 1.** The said Nez Perce tribe agree to relinquish, and do hereby relinquish, to the
23 United States the lands heretofore reserved for the use and occupation of the said tribe, saving
24 and excepting so much thereof as is described in Article II for a new reservation.
25

26 **ARTICLE 2.** The United States agree to reserve for a home, and for the sole use and
27 occupation of said tribe, the tract of land included within the following boundaries, to wit:
28 Commencing at the northeast corner of Lake Wa-ha, and running thence, northerly, to a point on
29 the north bank of the Clearwater River, three miles below the mouth of the Lapwai, thence down
30 the north bank of the Clearwater to the mouth of the Hatwai Creek; thence, due north, to a point
31 seven miles distant; thence, eastwardly, to a point on the north fork of the Clearwater, seven
32 miles distant from its mouth; thence to a point on Oro Fino Creek, five miles above its mouth;
33 thence to a point on the north fork of the south fork of the Clearwater, five miles above its mouth;
34 thence to a point on the south fork of the Clearwater, one mile above the bridge, on the road
35 leading to Elk City, (so as to include all the Indian farms now within the forks;) thence in a
36 straight line, westwardly, to the place of beginning.
37

38 All of which tract shall be set apart, and the above-described boundaries shall be surveyed and
39 marked out for the exclusive use and benefit of said tribe as an Indian reservation, nor shall any
40 white man, excepting those in the employment of the Indian Department, be permitted to reside
41 upon the said reservation without permission of the tribe and the superintendent and agent; and
42 the said tribe agrees that so soon after the United States shall make the necessary provision for
43 fulfilling the stipulations of this instrument as they can conveniently arrange their affairs, and not
44 to exceed one year from its ratification, they will vacate the country hereby relinquished, and
45 remove to and settle upon the lands herein reserved for them, (except as may be hereinafter
46 provided.) In the meantime it shall be lawful for them to reside upon any ground now occupied or
47 under cultivation by said Indians at this time, and not included in the reservation above named.
48 And it is provided, that any substantial improvement heretofore made by any Indian, such as
49 fields enclosed and cultivated, or houses erected upon the lands hereby relinquished, and which
50 he may be compelled to abandon in consequence of this treaty, shall be valued under the
51 direction of the President of the United States, and payment therefore shall be made in stock or
52 in improvements of an equal value for said Indian upon the lot which may be assigned to him
53 within the bounds of the reservation, as he may choose, and no Indian will be required to
54 abandon the improvements aforesaid, now occupied by him, until said payment or improvement
55 shall have been made. And it is further provided, that if any Indian living on any of the land
56 hereby relinquished should prefer to sell his improvements to any white man, being a loyal

1 citizen of the United States, prior to the same being valued as aforesaid, he shall be allowed so
2 to do, but the sale or transfer of said improvements shall be made in the presence of, and with
3 the consent and approval of, the agent or superintendent, by whom a certificate of sale shall be
4 issued to the party purchasing, which shall set forth the amount of the consideration in kind.
5 Before the issue of said certificate, the agent or superintendent shall be satisfied that a valuable
6 consideration is paid, and that the party purchasing is of undoubted loyalty to the United States
7 Government. No settlement or claim made upon the improved lands by any Indian will be
8 permitted, except as herein provided, prior to the time specified for their removal. Any sale or
9 transfer thus made shall be in the stead of payment for improvements from the United States.

10
11 **ARTICLE 3.** The President shall, immediately after the ratification of this treaty, cause the
12 boundary-lines to be surveyed, and properly marked and established; after which, so much of
13 the lands hereby reserved as may be suitable for cultivation shall be surveyed into lots of twenty
14 acres each, and every male person of the tribe who shall have attained the age of twenty-one
15 years, or is the head of a family, shall have the privilege of locating upon one lot as a permanent
16 home for such person, and the lands so surveyed shall be allotted under such rules and
17 regulations as the President shall prescribe, having such reference to their settlement as may
18 secure adjoining each other the location of the different families pertaining to each band, so far
19 as the same may be practicable. Such rules and regulations shall be prescribed by the
20 President, or under his direction, as will insure to the family, in case of the death of the head
21 thereof, the possession and enjoyment of such permanent home, and the improvements
22 thereon. When the assignments as above shall have been completed, certificates shall be
23 issued by the Commissioner of Indian Affairs, or under his direction, for the tracts assigned in
24 severalty, specifying the names of the individuals to whom they have been assigned
25 respectively, and that said tracts are set apart for the perpetual and exclusive use and benefit of
26 such assignees and their heirs. Until otherwise provided by law, such tracts shall be exempt
27 from levy, taxation, or sale, and shall be alienable in fee, or leased, or otherwise disposed of,
28 only to the United States, or to persons then being members of the Nez Perce tribe, and of
29 Indian blood, with the permission of the President, and under such regulations as the Secretary
30 of the Interior or the Commissioner of Indian Affairs shall prescribe; and if any such person or
31 family shall at any time neglect or refuse to occupy and till a portion of the land so assigned, and
32 on which they have located, or shall rove from place to place, the President may cancel the
33 assignment, and may also withhold from such person or family their proportion of the annuities
34 or other payments due them until they shall have returned to such permanent home, and
35 resumed the pursuits of industry; and in default of their return, the tract may be declared
36 abandoned, and thereafter assigned to some other person or family of such tribe. The residue
37 of the land hereby reserved shall be held in common for pasturage for the sole use and benefit of
38 the Indians: Provided, however, from time to time, as members of the tribe may come upon the
39 reservation, or may become of proper age, after the expiration of the time of one year after the
40 ratification of this treaty, as aforesaid, and claim the privileges granted under this article, lots
41 may be assigned from the lands thus held in common, wherever the same may be suitable for
42 cultivation. No State or territorial legislature shall remove the restriction herein provided for,
43 without the consent of Congress, and no State or territorial law to that end shall be deemed valid
44 until the same has been specially submitted to Congress for its approval.

45
46 **ARTICLE 4.** In consideration of the relinquishment herein made the United States agree to pay
47 to the said tribe, in addition to the annuities provided by the treaty of June 11, 1855, and the
48 goods and provisions distributed to them at the time of signing this treaty, the sum of two
49 hundred and sixty-two thousand and five hundred dollars, in manner following, to wit,

50
51 First. One hundred and fifty thousand dollars, to enable the Indians to remove and locate upon
52 the reservation, to be expended in the ploughing of land, and the fencing of the several lots,
53 which may be assigned to those individual members of the tribe who will accept the same in
54 accordance with the provisions of the preceding article, which said sum shall be divided into four

1 annual instalments, as follows: For the first year after the ratification of this treaty, seventy
2 thousand dollars; for the second year, forty thousand dollars; for the third year, twenty-five
3 thousand dollars; for the fourth year, fifteen thousand dollars.

4
5 Second. Fifty thousand dollars to be paid the first year after the ratification of this treaty in
6 agricultural implements, to include wagons or carts, harness, and cattle, sheep, or other stock,
7 as may be deemed most beneficial by the superintendent of Indian affairs, or agent, after
8 ascertaining the wishes of the Indians in relation thereto.

9
10 Third. Ten thousand dollars for the erection of a saw and flouring mill, to be located at Kamia,
11 the same to be erected within one year after the ratification hereof.

12
13 Fourth. Fifty thousand dollars for the boarding and clothing of the children who shall attend the
14 schools, in accordance with such rules or regulations as the Commissioner of Indian Affairs
15 may prescribe, providing the schools and boarding-houses with necessary furniture, the
16 purchase of necessary wagons, teams, agricultural implements, tools, etc., for their use, and for
17 the fencing of such lands as may be needed for gardening and farming purposes, for the use
18 and benefit of the schools, to be expended as follows: The first year after the ratification of this
19 treaty, six thousand dollars; for the next fourteen years, three thousand dollars each year; and for
20 the succeeding year, being the sixteenth and last instalment, two thousand dollars.

21
22 Fifth. A further sum of two thousand five hundred dollars shall be paid within one year after the
23 ratification hereof, to enable the Indians to build two churches, one of which is to be located at
24 some suitable point on the Kamia, and the other on the Lapwai.

25
26 **ARTICLE 5.** The United States further agree, that in addition to a head chief the tribe shall elect
27 two subordinate chiefs, who shall assist him in the performance of his public services, and each
28 subordinate chief shall have the same amount of land ploughed and fenced, with comfortable
29 house and necessary furniture, and to whom the same salary shall be paid as is already
30 provided for the head chief in Article 5 of the treaty of June 11, 1855, the salary to be paid and the
31 houses and land to be occupied during the same period and under like restrictions as therein
32 mentioned.

33
34 And for the purpose of enabling the agent to erect said buildings, and to plough and fence the
35 land, as well as to procure the necessary furniture, and to complete and furnish the house of the
36 head chief, as heretofore provided, there shall be appropriated, to be expended within the first
37 year after the ratification hereof, the sum of two thousand five hundred dollars.

38
39 And inasmuch-as several of the provisions of said art. 5th of the treaty of June 11, 1855,
40 pertaining to the erection of school-houses, hospital, shops, necessary buildings for employees
41 and for the agency, as well as providing the same with necessary furniture, tools, etc., have not
42 yet been complied with, it is hereby stipulated that there shall be appropriated, to be expended
43 for the purposes herein specified during the first year after the ratification hereof, the following
44 sums, to wit:

45
46 First. Ten thousand dollars for the erection of the two schools, including boarding-houses and
47 the necessary out-buildings; said schools to be conducted on the manual-labor system as far as
48 practicable.

49
50 Second. Twelve hundred dollars for the erection of the hospital, and providing the necessary
51 furniture for the same.

52
53 Third. Two thousand dollars for the erection of a blacksmith's shop, to be located at Kamia, to
54 aid in the completion of the smith's shop at the agency, and to purchase the necessary tools,

1 iron, steel, etc.; and to keep the same in repair and properly stocked with necessary tools and
2 materials, there shall be appropriated thereafter, for the fifteen years next succeeding, the sum
3 of five hundred dollars each year.

4
5 Fourth. Three thousand dollars for erection of houses for employees, repairs of mills, shops,
6 etc., and providing necessary furniture, tools, and materials. For the same purpose, and to
7 procure from year to year the necessary articles - - that is to say, saw-logs, nails, glass,
8 hardware, etc. - - there shall be appropriated thereafter, for the twelve years next succeeding,
9 the sum of two thousand dollars each year; and for the next three years, one thousand dollars
10 each year.

11
12 And it is further agreed that the United States shall employ, in addition to those already
13 mentioned in art. 5th of the treaty of June 11, 1855, two matrons to take charge of the
14 boarding-schools, two assistant teachers, one farmer, one carpenter, and two millers.

15
16 All the expenditures and expenses contemplated in this treaty, and not otherwise provided for,
17 shall be defrayed by the United States.

18
19 **ARTICLE 6.** In consideration of the past services and faithfulness of the Indian chief, Timothy, it
20 is agreed that the United States shall appropriate the sum of six hundred dollars, to aid him in the
21 erection of a house upon the lot of land which may be assigned to him, in accordance with the
22 provisions of the third article of this treaty.

23
24 **ARTICLE 7.** The United States further agree that the claims of certain members of the Nez
25 Perce tribe against the Government for services rendered and for horses furnished by them to
26 the Oregon mounted volunteers, as appears by certificate issued by W. H. Fauntleroy, A. R. Qr.
27 M. and Com. Oregon volunteers, on the 6th of March, 1856, at Camp Cornelius, and amounting
28 to the sum of four thousand six hundred and sixty-five dollars, shall be paid to them in full, in gold
29 coin.

30
31 **ARTICLE 8.** It is also understood that the aforesaid tribe do hereby renew their
32 acknowledgments of dependence upon the Government of the United States, their promises of
33 friendship, and other pledges, as set forth in the eighth article of the treaty of June 11, 1855; and
34 further, that all the provisions of said treaty which are not abrogated or specifically changed by
35 any article herein contained, shall remain the same to all intents and purposes as formerly, -- the
36 same obligations resting upon the United States, the same privileges continued to the Indians
37 outside of the reservation, and the same rights secured to citizens of the U.S. as to right of way
38 upon the streams and over the roads which may run through said reservation, as are therein set
39 forth.

40
41 But it is further provided, that the United States is the only competent authority to declare and
42 establish such necessary roads and highways, and that no other right is intended to be hereby
43 granted to citizens of the United States than the right of way upon or over such roads as may
44 thus be legally established. Provided, however, that the roads now usually travelled shall, in the
45 mean time, be taken and deemed as within the meaning of this article, until otherwise enacted
46 by act of Congress or by the authority of the Indian Department.

47
48 And the said tribe hereby consent, that upon the public roads which may run across the
49 reservation there may be established, at such points as shall be necessary for public
50 convenience, hotels, or stage-stands, of the number and necessity of which the agent or
51 superintendent shall be the sole judge, who shall be competent to license the same, with the
52 privilege of using such amount of land for pasturage and other purposes connected with such
53 establishment as the agent or superintendent shall deem necessary, it being understood that
54 such lands for pasturage are to be enclosed, and the boundaries thereof described in the

1 license.

2
3 And it is further understood and agreed that all ferries and bridges within the reservation shall be
4 held and managed for the benefit of said tribe.

5
6 Such rules and regulations shall be made by the Commissioner of Indian Affairs, with the
7 approval of the Secretary of the Interior, as shall regulate the travel on the highways, the
8 management of the ferries and bridges, the licensing of public houses, and the leasing of lands,
9 as herein provided, so that the rents, profits, and issues thereof shall inure to the benefit of said
10 tribe, and so that the persons thus licensed, or necessarily employed in any of the above
11 relations, shall be subject to the control of the Indian Department, and to the provisions of the act
12 of Congress "to regulate trade and intercourse with the Indian tribes, and to preserve peace on
13 the frontiers."

14
15 All timber within the bounds of the reservation is exclusively the property of the tribe, excepting
16 that the U.S. Government shall be permitted to use thereof for any purpose connected with its
17 affairs, either in carrying out any of the provisions of this treaty, or in the maintaining of its
18 necessary forts or garrisons.

19
20 The United States also agree to reserve all springs or fountains not adjacent to, or directly
21 connected with, the streams or rivers within the lands hereby relinquished, and to keep back
22 from settlement or entry so much of the surrounding land as may be necessary to prevent the
23 said springs or fountains being enclosed; and, further, to preserve a perpetual right of way to and
24 from the same, as watering places, for the use in common of both whites and Indians.

25
26 **ARTICLE 9.** Inasmuch as the Indians in council have expressed their desire that Robert Newell
27 should have confirmed to him a piece of land lying between Snake and Clearwater Rivers, the
28 same having been given to him on the 9th day of June, 1861, and described in an instrument of
29 writing bearing that date, and signed by several chiefs of the tribe, it is hereby agreed that the
30 said Robert Newell shall receive from the United States a patent for the said tract of land.

31
32 **ARTICLE 10.** This treaty shall be obligatory upon the contracting parties as soon as the same
33 shall be ratified by the President and Senate of the United States.

34
35 In testimony whereof the said C. H. Hale, superintendent of Indian affairs, and Charles Hutchins
36 and S. D. Howe, United States Indian agents in the Territory of Washington, and the chiefs,
37 headmen, and delegates of the aforesaid Nez Perce tribe of Indians, have hereunto set their
38 hands and seals at the place and on the day and year hereinbefore written.

39
40 Calvin H. Hale, Superintendent Indian
41 Affairs, Wash. T. (SEAL.)

Tip-ulania-timecca, x (SEAL.)

Es-coatum, x (SEAL.)

42
43 Chas. Hutchins, United States Indian agent,
44 Wash. T. (SEAL.)

Timothy, x (SEAL.)

45
46 S. D. Howe, United States Indian agent,
47 Wash. t. (SEAL.)

Levi, x (SEAL.)

Jason, x (SEAL.)

48
49 Fa-Ind-7-1803 Lawyer
50 Head Chief Nez Perce Nation. (SEAL.)

Ip-she-ne-wish-kin, (Capt. John,) x (SEAL.)

51
52 Ute-sin-male-e-cum, x (SEAL.)

Weptas-jump-ki, x (SEAL.)

53
54 Ha-harch-tuesta, x (SEAL.)

We-as-cus, x (SEAL.)

1	Pep-hoom-kan, (Noah,) x (SEAL.)	Sah-kan-tai, (Eagle,) x (SEAL.)
2		
3	Shin-ma-sha-ho-soot, x (SEAL.)	We-ah-se-nat, x (SEAL.)
4		
5	Nie-ki-lil-meh-hoom, (Jacob,) x (SEAL.)	Hin-mia-tun-pin, x (SEAL.)
6		
7	Stoop-toop-nin, x (SEAL.)	Ma-hi-a-kim, x (SEAL.)
8		
9	Su-we-cus, x (SEAL.)	Shock-lo-turn-wa-haikt, (Jo-nah,) x (SEAL.)
10		
11	Wal-la-ta-mana, x (SEAL.)	Kunness-tak-mal, x (SEAL.)
12		
13	He-kaikt-il-pilp, x (SEAL.)	Tu-lat-sy-wat-kin, x (SEAL.)
14		
15	Whis-tas-ket, x (SEAL.)	Tuck-e-tu-et-as, x (SEAL.)
16		
17	Neus-ne-keun, x (SEAL.)	Nic-a-las-in, x (SEAL.)
18		
19	Kul-lou-o-haikt, x (SEAL.)	Was-atis-il-pilp, x (SEAL.)
20		
21	Wow-en-am-ash-il-pilp, x (SEAL.)	Wow-es-en-at-im, x (SEAL.)
22		
23	Kan-pow-e-een, x (SEAL.)	Hiram, x (SEAL.)
24		
25	Watai-watai-wa-haikt, x (SEAL.)	Howlish-wampum, x (SEAL.)
26		
27	Kup-kup-pellia, x (SEAL.)	Wat-ska-leeks, x (SEAL.)
28		
29	Wap-tas-ta-mana, x (SEAL.)	Wa-lai-tus, x (SEAL.)
30		
31	Peo-peo-ip-se-wat, x (SEAL.)	Ky-e-wee-pus, x (SEAL.)
32		
33	Louis-in-ha-cush-nim, x (SEAL.)	Ko-ko-il-pilp, x (SEAL.)
34		
35	Lam-lim-si-lilp-nim, x (SEAL.)	Reuben, Tip-ia-la-na-uy-kala-tsekin, x (SEAL.)
36		
37	Tu-ki-lai-kish, x (SEAL.)	Wish-la-na-ka-nin, x (SEAL.)
		Me-tat-ueptas, (Three Feathers,) x (SEAL.)
		Ray-kay-mass, x (SEAL.)

38 ***Signed and sealed in presence of - -***

39		
40	George F. Whitworth, Secretary	William Kapus, First Lieutenant and Adjutant
41		First W. T. Infantry U.S. Volunteers
42	Justus Steinberger, Colonel U.S. Volunteers	
43		Harrison Olmstead
44	R. F. Malloy, Colonel Cavalry, O.V.	
45		Jno. Owen, (Bitter Root.)
46	J. S. Rinearson, Major First Cavalry Oregon	
47	Volunteers	James O'Neil
48		

1 J. B. Buker, M. D.

George W. Elber

A. A. Spalding, assistant interpreter

Perrin B. Whitman, interpreter for the
council

2 Ratified Apr. 17, 1867

3 Proclaimed Apr. 20, 1867

1 The US GenWeb Archives provide genealogical and historical data to the
2 general public without fee or charge of any kind. It is intended that
3 this material not be used in a commercial manner.
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5 Submitted by Kevin Fraley from public records Jan. 28, 1997.
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10 ***Third Nez Perce Treaty, 1868***

11
12
13
14 Whereas certain amendments are desired by the Nez Perce tribe of Indians to their treaty
15 concluded at the council ground in the valley of the Lapwai, in the Territory of Washington, on the
16 ninth day of June, in the year of our Lord one thousand eight hundred and sixty-three; and
17 whereas the United States are willing to assent to said amendments; it is therefore agreed by
18 and between Nathaniel G. Taylor, commissioner, on the part of the United States, thereunto duly
19 authorized, and Lawyer, Timothy, and Jason, chiefs of said tribe, also being thereunto duly
20 authorized, in manner and form following, that is to say:
21

22 **ARTICLE 1.** That all lands embraced within the limits of the tract set apart for the exclusive use
23 and benefit of said Indians by the 2d article of said treaty of June 9th, 1863, which are
24 susceptible of cultivation and suitable for Indian farms, which are not now occupied by the United
25 States for military purposes, or which are not required for agency or other buildings and
26 purposes provided for by existing treaty stipulations, shall be surveyed as provided in the 3d
27 article of said treaty of June 9th, 1863, and as soon as the allotments shall be plowed and
28 fenced, and as soon as schools shall be established as provided by existing treaty stipulations,
29 such Indians now residing outside the reservation as may be decided upon by the agent of the
30 tribe and the Indians themselves, shall be removed to and located upon allotments within the
31 reservation.
32

33 Provided, however, That in case there should not be a sufficient quantity of suitable land within
34 the boundaries of the reservation to provide allotments for those now there and those residing
35 outside the boundaries of the same, then those residing outside, or as many thereof as
36 allotments cannot be provided for, may remain upon the lands now occupied and improved by
37 them, provided, that the land so occupied does not exceed twenty acres for each and every
38 male person who shall have attained the age of twenty-one years or is the head of a family, and
39 the tenure of those remaining upon lands outside the reservation shall be the same as is
40 provided in said 3d article of said treaty of June 9th, 1863, for those receiving allotments within
41 the reservation; and it is further agreed that those now residing outside of the boundaries of the
42 reservation and who may continue to so reside shall be protected by the military authorities in
43 their rights upon the allotments occupied by them, and also in the privilege of grazing their
44 animals upon surrounding unoccupied lands.
45

46 **ARTICLE 2.** It is further agreed between the parties hereto that the stipulations contained in the
47 8th article of the treaty of June 9th, 1863, relative to timber, are hereby annulled as far as the
48 same provides that the United States shall be permitted to use thereof in the maintaining of forts
49 or garrisons, and that the said Indians shall have the aid of the military authorities to protect the
50 timber upon their reservation, and that none of the same shall be cut or removed without the
51 consent of the head-chief of the tribe, together with the consent of the agent and superintendent
52 of Indian affairs, first being given in writing, which written consent shall state the part of the
53 reservation upon which the timber is to be cut, and also the quantity, and the price to be paid
54 therefore.
55

56 **ARTICLE 3.** It is further hereby stipulated and agreed that the amount due said tribe for school

1 purposes and for the support of teachers that has not been expended for that purpose since the
2 year 1864, but has been used for other purposes, shall be ascertained and the same shall be
3 reimbursed to said tribe by appropriation by Congress, and shall be set apart and invested in
4 United States bonds and shall be held in trust by the United States, the interest on the same to
5 be paid to said tribe annually for the support of teachers.
6

7 In testimony whereof the said Commissioner on the part of the United States and the said chiefs
8 representing said Nez Perce tribe of Indians have hereunto set their hands and seals this 13th
9 day of August, in the year of our Lord one thousand eight hundred and sixty-eight, at the city of
10 Washington, D.C.

11 N. G. Taylor, (L.S.) Commissioner Indian Affairs. Lawyer, Head Chief Nez Perces. (L.S.)

12 Timothy, his x mark, Chief. (L.S.)

13
14 Jason, his x mark, Chief. (L.S.)
15

16
17
18
19 ***In presence of - -***

20
21 Charles E. Mix

22
23 Robert Newell, United States Agent

24
25 W. R. Irwin
26

27
28 Ratified Feb. 16, 1869

29 Proclaimed Feb. 24, 1869
30
31

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2 general public without fee or charge of any kind. It is intended that
3 this material not be used in a commercial manner.
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10 *The Nez Perce Treaty, 1855*

11
12
13
14 Articles of agreement and convention made and concluded at the treaty ground, Camp Stevens,
15 in the Walla-Walla Valley, this eleventh day of June, in the year one thousand eight hundred and
16 fifty-five, by and between Isaac I. Stevens, governor and superintendent of Indian affairs for the
17 Territory of Washington, and Joel Palmer, superintendent of Indian affairs for Oregon Territory,
18 on the part of the United States, and the undersigned chiefs, head-men, and delegates of the
19 Nez Perce tribe of Indians occupying lands lying partly in Oregon and partly in Washington
20 Territories, between the Cascade and Bitter Root Mountains, on behalf of, and acting for said
21 tribe, and being duly authorized thereto by them, it being understood that Superintendent Isaac I.
22 Stevens assumes to treat only with those of the above-named tribe of Indians residing within the
23 Territory of Washington, and Superintendent Palmer with those residing exclusively in Oregon
24 Territory.
25

26 **ARTICLE 1.** The said Nez Perce tribe of Indians hereby cede, relinquish and convey to the
27 United States all their right, title, and interest in and to the country occupied or claimed by them,
28 bounded and described as follows, to wit: Commencing at the source of the Wo-na-ne-she or
29 southern tributary of the Palouse River; thence down that river to the main Palouse; thence in a
30 southerly direction to the Snake River, at the mouth of the Tucanon River; thence up the
31 Tucanon to its source in the Blue Mountains; thence southerly along the ridge of the Blue
32 Mountains; thence to a point on Grand Ronde River, midway between Grand Ronde and the
33 mouth of the Woll-low-how River; thence along the divide between the waters of the
34 Woll-low-how and Powder River; thence to the crossing of Snake River, at the mouth of Powder
35 River; thence to the Salmon River, fifty miles above the place known (as) the "crossing of the
36 Salmon River;" thence due north to the summit of the Bitter Root Mountains; thence along the
37 crest of the Bitter Root Mountains to the place of beginning.
38

39 **ARTICLE 2.** There is, however, reserved from the lands above ceded for the use and
40 occupation of the said tribe, and as a general reservation for other friendly tribes and bands of
41 Indians in Washington Territory, not to exceed the present numbers of the Spokane,
42 Walla-Walla, Cayuse, and Umatilla tribes and bands of Indians, the tract of land included within
43 the following boundaries, to wit: Commencing where the Moh-ha-na-she or southern tributary of
44 the Palouse River flows from the spurs of the Bitter Root Mountains; thence down said tributary
45 to the mouth of the Ti-nat-pan-up Creek; thence southerly to the crossing of the Snake River ten
46 miles below the mouth of the Al-po-wa-wi River; thence to the source of the Al-po-wa-wi River in
47 the Blue Mountains; thence along the crest of the Blue Mountains; thence to the crossing of the
48 Grand Ronde River, midway between the Grand Ronde and the mouth of the Woll-low-how
49 River; thence along the divide between the waters of the Woll-low-how and Powder Rivers;
50 thence to the crossing of the Snake River fifteen miles below the mouth of the Powder River;
51 thence to the Salmon River above the crossing; thence by the spurs of the Bitter Root Mountains
52 to the place of beginning.
53

54 All which tract shall be set apart, and, so far as necessary, surveyed and marked out for the
55 exclusive use and benefit of said tribe as an Indian reservation; nor shall any white man,
56 excepting those in the employment of the Indian Department, be permitted to reside upon the

1 said reservation without permission of the tribe and the superintendent and agent; and the said
2 tribe agrees to remove to and settle upon the same within one year after the ratification of this
3 treaty. In the mean time it shall be lawful for them to reside upon any ground not in the actual
4 claim and occupation of citizens of the United States, and upon any ground claimed or occupied,
5 if with the permission of the owner or claimant, guarantying, however, the right to all citizens of
6 the United States to enter upon and occupy as settlers any lands not actually occupied and
7 cultivated by said Indians at this time, and not included in the reservation above named. And
8 provided that any substantial improvement heretofore made by any Indian, such as fields
9 enclosed and cultivated, and houses erected upon the lands hereby ceded, and which he may
10 be compelled to abandon in consequence of this treaty, shall be valued under the direction of the
11 President of the United States, and payment made therefor in money, or improvements of an
12 equal value be made for said Indian upon the reservation, and no Indian will be required to
13 abandon the improvements aforesaid, now occupied by him, until their value in money or
14 improvements of equal value shall be furnished him as aforesaid.

15
16 **ARTICLE 3.** And provided that, if necessary for the public convenience, roads may be run
17 through the said reservation, and, on the other hand, the right of way, with free access from the
18 same to the nearest public highway, is secured to them, as also the right, in common with
19 citizens of the United States, to travel upon all public highways. The use of the Clear Water and
20 other streams flowing through the reservation is also secured to citizens of the United States for
21 rafting purposes, and as public highways.

22
23 The exclusive right of taking fish in all the streams where running through or bordering said
24 reservation is further secured to said Indians; as also the right of taking fish at all usual and
25 accustomed places in common with citizens of the Territory; and of erecting temporary buildings
26 for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their
27 horses and cattle upon open and unclaimed land.

28
29 **ARTICLE 4.** In consideration of the above cession, the United States agree to pay to the said
30 tribe in addition to the goods and provisions distributed to them at the time of signing this treaty,
31 the sum of two hundred thousand dollars, in the following manner, that is to say, sixty thousand
32 dollars, to be expended under the direction of the President of the United States, the first year
33 after the ratification of this treaty, in providing for their removal to the reserve, breaking up and
34 fencing farms, building houses, supplying them with provisions and a suitable outfit, and for such
35 other objects as he may deem necessary, and the remainder in annuities, as follows: for the
36 first five years after the ratification of this treaty, ten thousand dollars each year, commencing
37 September 1, 1856; for the next five years, eight thousand dollars each year; for the next five
38 years, six thousand each year, and for the next five years, four thousand dollars each year. All
39 which said sums of money shall be applied to the use and benefit of the said Indians, under the
40 direction of the President of the United States, who may from time to time determine, at his
41 discretion, upon what beneficial objects to expend the same for them. And the superintendent of
42 Indian affairs, or other proper officer, shall each year inform the President of the wishes of the
43 Indians in relation thereto.

44
45 **ARTICLE 5.** The United States further agree to establish, at suitable points within said
46 reservation, within one year after the ratification hereof, two schools, erecting the necessary
47 buildings, keeping the same in repair, and providing them with furniture, books, and stationery,
48 one of which shall be an agricultural and industrial school, to be located at the agency, and to be
49 free to the children of said tribe, and to employ one superintendent of teaching and two teachers;
50 to build two blacksmiths' shops, to one of which shall be attached a tinshop and to the other a
51 gunsmith's shop; one carpenter's shop, one wagon and plough maker's shop, and to keep the
52 same in repair, and furnished with the necessary tools to employ one superintendent of farming
53 and two farmers, two blacksmiths, one tinner, one gunsmith, one carpenter, one wagon and
54 plough maker, for the instruction of the Indians in trades, and to assist them in the same; to erect

1 one saw-mill and one flouring-mill, keeping the same in repair, and furnished with the necessary
2 tools and fixtures, and to employ two millers; to erect a hospital, keeping the same in repair, and
3 provided with the necessary medicines and furniture, and to employ a physician; and to erect,
4 keep in repair, and provide with the necessary furniture the buildings required for the
5 accommodation of the said employees. The said buildings and establishments to be maintained
6 and kept in repair as aforesaid, and the employees to be kept in service for the period of twenty
7 years.

8
9 And in view of the fact that the head chief of the tribe is expected, and will be called upon, to
10 perform many services of a public character, occupying much of his time, the United States
11 further agrees to pay to the Nez Perce tribe five hundred dollars per year for the term of twenty
12 years, after the ratification hereof, as a salary for such person as the tribe may select to be its
13 head chief. To build for him, at a suitable point on the reservation, a comfortable house, and
14 properly furnish the same, and to plough and fence for his use ten acres of land. The said salary
15 to be paid to, and the said house to be occupied by, such head chief so long as he may be
16 elected to that position by his tribe, and no longer. And all the expenditures and expenses
17 contemplated in this fifth article of this treaty shall be defrayed by the United States, and shall not
18 be deducted from the annuities agreed to be paid to said tribe, nor shall the cost of transporting
19 the goods for the annuity-payments be a charge upon the annuities, but shall be defrayed by the
20 United States.

21
22 **ARTICLE 7.** The President may from time to time, at his discretion, cause the whole, or such
23 portions of such reservation as he may think proper, to be surveyed into lots, and assign the
24 same to such individuals or families of the said tribe as are willing to avail themselves of the
25 privilege, and will locate on the same as a permanent home, on the same terms and subject to
26 the same regulations as are provided in the sixth article of the treaty with the Omahas in the year
27 1854, so far as the same may be applicable.

28
29 **ARTICLE 8.** The annuities of the aforesaid tribe shall not be taken to pay the debts of
30 individuals.

31
32 **ARTICLE 9.** The aforesaid tribe acknowledge their dependence upon the Government of the
33 United States, and promise to be friendly with all citizens thereof, and pledge themselves to
34 commit no depredations on the property of such citizens; and should any one or more of them
35 violate this pledge, and the fact be satisfactorily proved before the agent, the property taken shall
36 be returned, or in default thereof, or if injured or destroyed, compensation may be made by the
37 Government out of the annuities. Nor will they make war on any other tribe except in
38 self-defense, but will submit all matters of difference between them and the other Indians to the
39 Government of the United States, or its agent, for decision, and abide thereby; and if any of the
40 said Indians commit any depredations on any other Indians within the Territory of Washington,
41 the same rule shall prevail as that prescribed in this article in cases of depredations against
42 citizens. And the said tribe agrees not to shelter or conceal offenders against the laws of the
43 United States, but to deliver them up to the authorities for trial.

44
45 **ARTICLE 10.** The Nez Perce desire to exclude from their reservation the use of ardent spirits,
46 and to prevent their people from drinking the same; and therefore it is provided that any Indian
47 belonging to said tribe who is guilty of bringing liquor into said reservation, or who drinks liquor,
48 may have his or her proportion of the annuities withheld from him or her for such time as the
49 President may determine.

50
51 **ARTICLE 11.** The Nez Perce Indians having expressed in council a desire that William Craig
52 should continue to live with them, he having uniformly shown himself their friend, it is further
53 agreed that the tract of land now occupied by him, and described in his notice to the register and
54 receiver of the land-office of the Territory of Washington, on the fourth day of June last, shall not

1 be considered a part of the reservation provided for in this treaty, except that it shall be subject in
2 common with the lands of the reservation to the operations of the intercourse act.
3

4 **ARTICLE 12.** This treaty shall be obligatory upon the contracting parties as soon as the same
5 shall be ratified by the President and Senate of the United States.
6

7 In testimony whereof, the said Isaac I. Stevens, governor and superintendent of Indian affairs for
8 the Territory of Washington, and Joel Palmer, superintendent of Indian affairs for Oregon
9 Territory, and the chiefs, headmen, and delegates of the aforesaid Nez Perce tribe of Indians,
10 have hereunto set their hands and seals, at the place, and on the day and year hereinbefore
11 written.

12
13 Isaac I. Stevens, (L.S.), Governor and
14 Superintendent Washington Territory.

Ish-coh-tim, his x mark. (L.S.)

15
16 Joel Palmer, (L.S.), Superintendent Indian
17 Affairs.

Wee-as-cus, his x mark. (L.S.)

18
19 Aleiya, or Lawyer, Head-chief of the Nez
20 Perce, (L.S.)

Hah-hah-stoore-tee, his x mark. (L.S.)

21
22 Appushwa-hite, or Looking-glass, his x
23 mark. (L.S.)

Eee-maht-sin-pooh, his x mark. (L.S.)

24
25 Joseph, his x mark. (L.S.)

Tow-wish-au-il-pilp, his x mark. (L.S.)

26
27 James, his x mark. (L.S.)

Kay-kay-mass, his x mark. (L.S.)

28
29 Red Wolf, his x mark. (L.S.)

Speaking Eagle, his x mark. (L.S.)

30
31 Timothy, his x mark. (L.S.)

Wat-ti-wat-ti-wah-hi, his x mark. (L.S.)

32
33 U-ute-sin-male-cun, his x mark, (L.S.)

Howh-no-tah-kun, his x mark. (L.S.)

34
35 Spotted Eage, his x mark. (L.S.)

Tow-wish-wane, his x mark. (L.S.)

36
37 Stoop-toop-nin, or Cut-hair, his x mark.
38 (L.S.)

Wahpt-tah-shooshe, his x mark. (L.S.)

39
40 Tah-moh-moh-kin, his x mark. (L.S.)

Bead Necklace, his x mark. (L.S.)

41
42 Tippelanecbupooh, his x mark. (L.S.)

Koos-koos-tas-kut, his x mark. (L.S.)

43
44 Hah-hah-stilpilp, his x mark. (L.S.)

Levi, his x mark. (L.S.)

45
46 Cool-cool-shua-nin, his x mark. (L.S.)

Pee-oo-pe-whi-hi, his x mark. (L.S.)

47
48 Silish, his x mark. (L.S.)

Pee-oo-pee-iecteim, his x mark. (L.S.)

49
50 Toh-toh-molewit, his x mark. (L.S.)

Pee-poome-kah, his x mark. (L.S.)

51
52 Tuky-in-lik-it, his x mark. (L.S.)

Hah-hah-still-at-me, his x mark. (L.S.)

53
54 Te-hole-hole-soot, his x mark. (L.S.)

Wee-yoke-sin-ate, his x mark. (L.S.)

Wee-ah-ki, his x mark. (L.S.)

Necalahtsin, his x mark. (L.S.)

1	Suck-on-tie, his x mark. (L.S.)	Ko-ko-whay-nee, his x mark. (L.S.)
2		
3	Ip-nat-tam-moose, his x mark. (L.S.)	Kwin-to-kow, his x mark. (L.S.)
4		
5	Jason, his x mark. (L.S.)	Pee-wee-au-ap-tah, his x mark. (L.S.)
6		
7	Kole-kole-til-ky, his x mark. (L.S.)	Wee-at-tenat-il-pilp, his x mark. (L.S.)
8		
9	In-mat-tute-kah-ky, his x mark. (L.S.)	Pee-oo-pee-u-il-pilp, his x mark. (L.S.)
10		
11	Moh-see-chee, his x mark. (L.S.)	Wah-tass-tum-mannee, his x mark. (L.S.)
12		
13	George, his x mark. (L.S.)	Tu-wee-si-ce, his x mark. (L.S.)
14		
15	Nicke-el-it-may-ho, his x mark.	Lu-ee-sin-kah-koose-sin, his x mark. (L.S.)
16	(L.S.) Say-i-ee-ouse, his x mark. (L.S.)	
17		Hah-tal-ee-kin, his x mark. (L.S.)
18	Wis-tasse-cut, his x mark. (L.S.)	
19		
20	Ky-ky-soo-te-lum, his x mark. (L.S.)	
21		
22		

23
24 ***Signed and sealed in presence of us - -***

25		
26	James Doty, secretary of treaties, W.T.	Geo. C. Bomford
27		
28	Wm. C. McKay, secretary of treaties, O.T.	C. Chirouse, O.M.T.
29		
30	W. H. Tappan, sub-Indian agent	Mie. Cles. Pandosy
31		
32	William Craig, interpreter	Lawrence Kip
33		
34	A. D. Pamburn, interpreter	W. H. Pearson
35		
36	Wm. McBean	

37
38 Ratified Mar. 8, 1859
39 Proclaimed Apr. 29, 1859

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10 *Yakima Treaty of Camp Stevens, 1855*

11
12
13
14 Articles of agreement and convention made and concluded at the treaty-ground, Camp Stevens,
15 Walla-Walla Valley, this ninth day of June, in the year one thousand eight hundred and fifty-five,
16 by and between Isaac I. Stevens, governor and superintendent of Indian affairs for the Territory of
17 Washington, on the part of the United States, and the undersigned head chiefs, chiefs,
18 head-men, and delegates of the Yakama, Palouse, Pisuouse, Wenatshapam, Klikatat, Klinquit,
19 Kow-was-say-ee, Li-ay-was, Skin-pah, Wish-ham, Shyiks, Oche-chotes, Kah-milt-pah, and
20 Se-ap-cat, confederated tribes and bands of Indians, occupying lands hereinafter bounded and
21 described and lying in Washington Territory, who for the purposes of this treaty are to be
22 considered as one nation, under the name of "Yakama," with Kamaiakun as its head chief, on
23 behalf of and acting for said tribes and bands, and being duly authorized thereto by them.
24

25 **ARTICLE 1.** The aforesaid confederated tribes and bands of Indians hereby cede, relinquish,
26 and convey to the United States all their right, title, and interest in and to the lands and country
27 occupied and claimed by them, and bounded and described as follows, to wit: Commencing at
28 Mount Ranier, thence northerly along the main ridge of the Cascade Mountains to the point
29 where the northern tributaries of Lake Che-lan and the southern tributaries of the Methow River
30 have their rise; thence southeasterly on the divide between the waters of Lake Che-lan and the
31 Methow River to the Columbia River; thence, crossing the Columbia on a true east course, to a
32 point whose longitude is one hundred and nineteen degrees and ten minutes, (119 degrees 10',)
33 which two latter lines separate the above confederated tribes and bands from the Oakinakane
34 tribe of Indians; thence in a true south course to the forty-seventh (47 degrees) parallel of
35 latitude; thence east on said parallel to the main Palouse River, which two latter lines of
36 boundary separate the above confederated tribes and bands from the Spokanes; thence down
37 the Palouse River to its junction with the Moh-hah-ne-she, or southern tributary of the same;
38 thence in a southeasterly direction, to the Snake River, at the mouth of the Tucannon River,
39 separating the above confederated tribes from the Nez Perce tribe of Indians; thence down the
40 Snake River to its junction with the Columbia River; thence up the Columbia River to the "White
41 Banks" below the Priest's Rapids; thence westerly to a lake called "LaLac"; thence southerly to a
42 point on the Yakama River called Toh-mah-luke; thence, in a southwesterly direction, to the
43 Columbia River, at the western extremity of the "Big Island," between the mouths of the Umatilla
44 River and Butler Creek; all which latter boundaries separate the above confederated tribes and
45 bands from the Walla-Walla, Cayuse, and Umatilla tribes and bands of Indians; thence down the
46 Columbia River to midway between the mouths of White Salmon and Wind Rivers thence along
47 the divide between said rivers to the main ridge of the Cascade Mountains; and thence along
48 said ridge to the place of beginning.
49

50 **ARTICLE 2.** There is, however, reserved, from the lands above ceded for the use and
51 occupation of the aforesaid confederated tribes and bands of Indians, the tract of land included
52 within the following boundaries, to wit: Commencing on the Yakama River, at the mouth of the
53 Attah-nam River; thence westerly along said Attah-nam River to the forks; thence along the
54 southern tributary to the Cascade Mountains; thence southerly along the main ridge of said
55 mountains, passing south and east of Mount Adams, to the spur whence flows the waters of the
56 Klickatat and Pisco Rivers; thence down said spur to the divide between the waters of said

1 rivers; thence along said divide to the divide separating the waters of the Satass River from
2 those flowing into the Columbia River; thence along said divide to the main Yakama, eight miles
3 below the mouth of the Satass River; and thence up the Yakama River to the place of beginning.
4 All which tract shall be set apart and, so far as necessary, surveyed and marked out, for the
5 exclusive use and benefit of said confederated tribes and bands of Indians, as an Indian
6 reservation; nor shall any white man, excepting those in the employment of the Indian
7 Department, be permitted to reside upon the said reservation without permission of the tribe and
8 the superintendent and agent. And the said confederated tribes and bands agree to remove to,
9 and settle upon, the same, within one year after the ratification of this treaty. In the mean time it
10 shall be lawful for them to reside upon any ground not in the actual claim and occupation of
11 citizens of the United States; and upon any ground claimed or occupied, if with the permission of
12 the owner or claimant. Guaranteeing, however, the right to all citizens of the United States to
13 enter upon and occupy as settlers any lands not actually occupied and cultivated by said Indians
14 at this time, and not included in the reservation above named.

15
16 And provided, That any substantial improvements heretofore made by any Indian, such as fields
17 enclosed and cultivated, and houses erected upon the lands hereby ceded, and which he may
18 be compelled to abandon in consequence of this treaty, shall be valued, under the direction of
19 the President of the United States, and payment made therefor in money; or improvements of an
20 equal value made for said Indian upon the reservation. And no Indian will be required to abandon
21 the improvements aforesaid, now occupied by him, until their value in money, or improvements
22 of an equal value shall be furnished him as aforesaid.

23
24 **ARTICLE 3.** And provided, That, if necessary for the public convenience, roads may be run
25 through the said reservation; and on the other hand, the right of way, with free access from the
26 same to the nearest public highway, is secured to them; as also the right, in common with
27 citizens of the United States, to travel upon all public highways.

28
29 The exclusive right of taking fish in all the streams, where running through or bordering said
30 reservation, is further secured to said confederated tribes and bands of Indians, as also the right
31 of taking fish at all usual and accustomed places, in common with the citizens of the Territory,
32 and of erecting temporary buildings for curing them; together with the privilege of hunting,
33 gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed
34 land.

35
36 **ARTICLE 4.** In consideration of the above cession, the United States agree to pay to the said
37 confederated tribes and bands of Indians, in addition to the goods and provisions distributed to
38 them at the time of signing this treaty, the sum of two hundred thousand dollars, in the following
39 manner, that is to say: Sixty thousand dollars, to be expended under the direction of the
40 President of the United States, the first year after the ratification of this treaty, in providing for
41 their removal to the reservation, breaking up and fencing farms, building houses for them,
42 supplying them with provisions and a suitable outfit, and for such other objects as he may deem
43 necessary, and the remainder in annuities, as follows: For the first five years after the
44 ratification of the treaty, ten thousand dollars each year, commencing September first, 1856; for
45 the next five years, eight thousand dollars each year; for the next five years, six thousand dollars
46 per year; and for the next five years, four thousand dollars per year.

47
48 All which sums of money shall be applied to the use and benefit of said Indians, under the
49 direction of the President of the United States, who may from time to time determine, at his
50 discretion, upon what beneficial objects to expend the same for them. And the superintendent of
51 Indian affairs, or other proper officer, shall each year inform the President of the wishes of the
52 Indians in relation thereto.

53
54 **ARTICLE 5.** The United States further agree to establish at suitable points within said

1 reservation, within one year after the ratification hereof, two schools, erecting the necessary
2 buildings, keeping them in repair, and providing them with furniture, books, and stationery, one of
3 which shall be an agricultural and industrial school, to be located at the agency, and to be free to
4 the children of the said confederated tribes and bands of Indians, and to employ one
5 superintendent of teaching and two teachers; to build two blacksmiths' shops, to one of which
6 shall be attached a tin-shop, and to the other a gunsmith's shop; one carpenter's shop, one
7 wagon and plough maker's shop, and to keep the same in repair and furnished with the
8 necessary tools; to employ one superintendent of farming and two farmers, two blacksmiths,
9 one tinner, one gunsmith, one carpenter, one wagon and plough maker, for the instruction of the
10 Indians in trades and to assist them in the same; to erect one saw-mill and one flouring-mill,
11 keeping the same in repair and furnished with the necessary tools and fixtures; to erect a
12 hospital, keeping the same in repair and provided with the necessary medicines and furniture,
13 and to employ a physician; and to erect, keep in repair, and provided with the necessary
14 furniture, the building required for the accommodation of the said employees. The said buildings
15 and establishments to be maintained and kept in repair as aforesaid, and the employees to be
16 kept in service for the period of twenty years.

17
18 And in view of the fact that the head chief of the said confederated tribes and bands of Indians is
19 expected, and will be called upon to perform many services of a public character, occupying
20 much of his time, the United States further agree to pay to the said confederated tribes and
21 bands of Indians five hundred dollars per year, for the term of twenty years after the ratification
22 hereof, as a salary for such person as the said confederated tribes and bands of Indians may
23 select to be their head chief, to build for him at a suitable point on the reservation a comfortable
24 house, and properly furnish the same, and to plough and fence ten acres of land. The said
25 salary to be paid to, and the said house to be occupied by, such head chief so long as he may
26 continue to hold that office.

27
28 And it is distinctly understood and agreed that at the time of the conclusion of this treaty
29 Kamaiakun is the duly elected and authorized head chief of the confederated tribes and bands
30 aforesaid, styled the Yakama Nation, and is recognized as such by them and by the
31 commissioners on the part of the United States holding this treaty; and all the expenditures and
32 expenses contemplated in this article of this treaty shall be defrayed by the United States, and
33 shall not be deducted from the annuities agreed to be paid to said confederated tribes and band
34 of Indians. Nor shall the cost of transporting the goods for the annuity payments be a charge
35 upon the annuities, but shall be defrayed by the United States.

36
37 **ARTICLE 6.** The President may, from time to time, at his discretion, cause the whole or such
38 portions of such reservation as he may think proper, to be surveyed into lots, and assign the
39 same to such individuals or families of the said confederated tribes and bands of Indians as are
40 willing to avail themselves of the privilege, and will locate on the same as a permanent home, on
41 the same terms and subject to the same regulations as are provided in the sixth article of the
42 treaty with the Omahas, so far as the same may be applicable.

43
44 **ARTICLE 7.** The annuities of the aforesaid confederated tribes and bands of Indians shall not
45 be taken to pay the debts of individuals.

46
47 **ARTICLE 8.** The aforesaid confederated tribes and bands of Indians acknowledge their
48 dependence upon the Government of the United States, and promise to be friendly with all
49 citizens thereof, and pledge themselves to commit no depredations upon the property of such
50 citizens. And should any one or more of them violate this pledge, and the fact be satisfactorily
51 proved before the agent, the property taken shall be returned, or in default thereof, or if injured or
52 destroyed, compensation may be made by the Government out of the annuities. Nor will they
53 make war upon any other tribe, except in self-defense, but will submit all matters of difference
54 between them and other Indians to the Government of the United States or its agent for decision,

1 and abide thereby. And if any of the said Indians commit depredations on any other Indians
2 within the Territory of Washington or Oregon, the same rule shall prevail as that provided in this
3 article in case of depredations against citizens. And the said confederated tribes and bands of
4 Indians agree not to shelter or conceal offenders against the laws of the United States, but to
5 deliver them up to the authorities for trial.
6

7 **ARTICLE 9.** The said confederated tribes and bands of Indians desire to exclude from their
8 reservation the use of ardent spirits, and to prevent their people from drinking the same, and,
9 therefore, it is provided that any Indian belonging to said confederated tribes and bands of
10 Indians, who is guilty of bringing liquor into said reservation, or who drinks liquor, may have his or
11 her annuities withheld from him or her for such time as the President may determine.
12

13 **ARTICLE 10.** And provided, That there is also reserved and set apart from the lands ceded by
14 this treaty, for the use and benefit of the aforesaid confederated tribes and bands, a tract of land
15 not exceeding in quantity one township of six miles square, situated at the forks of the Pisquouse
16 or Wenatshapam River, and known as the "Wenatshapam Fishery," which said reservation shall
17 be surveyed and marked out whenever the President may direct, and be subject to the same
18 provisions and restrictions as other Indian reservations.
19

20 **ARTICLE 11.** This treaty shall be obligatory upon the contracting parties as soon as the same
21 shall be ratified by the President and Senate of the United States. In testimony whereof, the said
22 Isaac I. Stevens, governor and superintendent of Indian affairs for the Territory of Washington,
23 and the undersigned head chief, chiefs, headmen, and delegates of the aforesaid confederated
24 tribes and bands of Indians, have hereunto set their hands and seals, at the place and on the day
25 and year hereinbefore written.
26

27 ISAAC I. STEVENS, Governor and
28 Superintendent. (L.S.)

Elit Palmer, his x mark. (L.S.)

29 Kamaiakun, his x mark. (L.S.)

Wish-och-kmpits, his x mark. (L.S.)

30 Skloom, his x mark. (L.S.)

Koo-lat-toose, his x mark. (L.S.)

31 Owhi, his x mark. (L.S.)

Shee-ah-cotte, his x mark. (L.S.)

32 Te-cole-kun, his x mark. (L.S.)

Tuck-quille, his x mark. (L.S.)

33 La-hoom, his x mark. (L.S.)

Ka-loo-as, his x mark. (L.S.)

34 Me-ni-nock, his x mark. (L.S.)

Scha-noo-a, his x mark. (L.S.)

Sla-kish, his x mark. (L.S.)

1 ***Signed and sealed in the presence of - -***
2
3 James Doty, secretary of treaties A. D. Pamburn, interpreter
4
5 Mie. Cles. Pandosy, O. M. T. Joel Palmer, superintendent Indian affairs,
6 O. T.
7 Wm. C. McKay W. D. Biglow
8
9 W. H. Tappan, sub Indian agent, W. T. A. D. Pamburn, interpreter
10
11 C. Chirouse, O. M. T.
12
13 Patrick McKenzie, interpreter

14
15 Ratified Mar. 8, 1859
16 Proclaimed Apr. 18, 1859

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10 ***Walla Walla Treaty of Camp Stevens, 1855***

11
12
13
14
15 Articles of agreement and convention made and concluded at the treatyground, Camp Stevens,
16 in the Walla-Walla Valley, this ninth day of June, in the year one thousand eight hundred and
17 fifty-five, by and between Isaac I. Stevens, governor and superintendent of Indian affairs for the
18 Territory of Washington, and Joel Palmer, superintendent of Indian affairs for Oregon Territory,
19 on the part of the United States, and the undersigned chiefs, head-men, and delegates of the
20 Walla-Wallas, Cayuses, and Umatilla tribes, and bands of Indians, occupying lands partly in
21 Washington and partly in Oregon Territories, and who, for the purposes of this treaty, are to be
22 regarded as one nation acting for and in behalf of their respective bands and tribes, they being
23 duly authorized thereto; it being understood that Superintendent I. I. Stevens assumes to treat
24 with that portion of the above-named bands and tribes residing within the Territory of
25 Washington, and Superintendent Palmer with those residing within Oregon.
26

27 **ARTICLE 1.** The above-named confederated bands of Indians cede to the United States all their
28 right, title, and claim to all and every part of the country claimed by them included in the following
29 boundaries, to wit: Commencing at the mouth of the Tocannon River, in Washington Territory,
30 running thence up said river to its source; thence easterly along the summit of the Blue
31 Mountains, and on the southern boundaries of the purchase made of the Nez Perces Indians,
32 and easterly along that boundary to the western limits of the country claimed by the Shoshonees
33 or Snake Indians; thence southerly along that boundary (being the waters of Powder River) to the
34 source of Powder River, thence to the head-waters of Willow Creek, thence down Willow Creek
35 to the Columbia River, thence up the channel of the Columbia River to the lower end of a large
36 island below the mouth of Umatilla River, thence northerly to a point on the Yakama River, called
37 Tomah-luke, thence to Le Lac, thence to the White Banks on the Columbia below Priest's
38 Rapids, thence down the Columbia River to the junction of the Columbia and Snake Rivers,
39 thence up the Snake River to the place of beginning: Provided, however, That so much of the
40 country described above as is contained in the following boundaries shall be set apart as a
41 residence for said Indians, which tract for the purposes contemplated shall be held and regarded
42 as an Indian reservation; to wit: Commencing in the middle of the channel of Umatilla River
43 opposite the mouth of Wild Horse Creek, thence up the middle of the channel of said creek to its
44 source, thence southerly to a point in the Blue Mountains, known as Lee's Encampment, thence
45 in a line to the head-waters of Howtome Creek, thence west to the divide between Howtome and
46 Birch Creeks, thence northerly along said divide to a point due west of the southwest corner of
47 William C. McKay's land-claim, thence east along his line to his southeast corner, thence in a
48 line to the place of beginning; all of which tract shall be set apart and, so far as necessary,
49 surveyed and marked out for their exclusive use; nor shall any white person be permitted to
50 reside upon the same without permission of the agent and superintendent. The said tribes and
51 bands agree to remove to and settle upon the same within one year after the ratification of this
52 treaty, without any additional expense to the Government other than is provided by this treaty,
53 and until the expiration of the time specified, the said bands shall be permitted to occupy and
54 reside upon the tracts now possessed by them, guaranteeing to all citizen(s) of the United
55 States, the right to enter upon and occupy as settlers any lands not actually enclosed by said
56 Indians:

1 Provided, also, That the exclusive right of taking fish in the streams running through and
2 bordering said reservation is hereby secured to said Indians, and at all other usual and
3 accustomed stations in common with citizens of the United States, and of erecting suitable
4 buildings for curing the same; the privilege of hunting, gathering roots and berries and pasturing
5 their stock on unclaimed lands in common with citizens, is also secured to them. And provided,
6 also, That if any band or bands of Indians, residing in and claiming any portion or portions of the
7 country described in this article, shall not accede to the terms of this treaty, then the bands
8 becoming parties hereunto agree to reserve such part of the several and other payments herein
9 named, as a consideration for the entire country described as aforesaid, as shall be in the
10 proportion that their aggregate number may have to the whole number of Indians residing in and
11 claiming the entire country aforesaid, as consideration and payment in full for the tracts in said
12 country claimed by them. And provided, also, That when substantial improvements have been
13 made by any member of the bands being parties to this treaty, who are compelled to abandon
14 them in consequence of said treaty, (they) shall be valued under the direction of the President of
15 the United States, and payment made therefor.

16
17 **ARTICLE 2.** In consideration of and payment for the country hereby ceded, the United States
18 agree to pay the bands and tribes of Indians claiming territory and residing in said country, and
19 who remove to and reside upon said reservation, the several sums of money following, to wit:
20 eight thousand dollars per annum for the term of five years, commencing on the first day of
21 September, 1856; six thousand dollars per annum for the term of five years next succeeding the
22 first five; four thousand dollars per annum for the term of five years next succeeding the second
23 five, and two thousand dollars per annum for the term of five years next succeeding the third five;
24 all of which several sums of money shall be expended for the use and benefit of the
25 confederated bands herein named, under the direction of the President of the United States, who
26 may from time to time at his discretion, determine what proportion thereof shall be expended for
27 such objects as in his judgment will promote their well-being, and advance them in civilization,
28 for their moral improvement and education, for buildings, opening and fencing farms, breaking,
29 land, purchasing teams, wagons, agricultural implements and seeds, for clothing, provision and
30 tools, for medical purposes, providing mechanics and farmers, and for arms and ammunition.

31
32 **ARTICLE 3.** In addition to the articles advanced the Indians at the time of signing this treaty, the
33 United States agree to expend the sum of fifty thousand dollars during the first and second years
34 after its ratification, for the erection of buildings on the reservation, fencing and opening farms,
35 for the purchase of teams, farming implements, clothing, and provisions, for medicines and
36 tools, for the payment of employees, and for subsisting the Indians the first year after their
37 removal.

38
39 **ARTICLE 4.** In addition to the consideration above specified, the United States agree to erect, at
40 suitable points on the reservation, one saw-mill, and one flouring-mill, a building suitable for a
41 hospital, two school-houses, one blacksmith shop, one building for wagon and plough maker
42 and one carpenter and joiner shop, one dwelling for each, two millers, one farmer, one
43 superintendent of farming operations, two school-teachers, one blacksmith, one wagon and
44 plough maker, one carpenter and joiner, to each of which the necessary out-buildings. To
45 purchase and keep in repair for the term of twenty years all necessary mill fixtures and
46 mechanical tools, medicines and hospital stores, books and stationery for schools, and furniture
47 for employees.

48
49 The United States further engage to secure and pay for the services and subsistence, for the
50 term of twenty years, (of) one superintendent of farming operations, one farmer, one blacksmith,
51 one wagon and plough maker, one carpenter and joiner, one physician, and two
52 school-teachers.

53
54 **ARTICLE 5.** The United States further engage to build for the head chiefs of the Walla-Walla,

1 Cayuse, and Umatilla bands each one dwelling-house, and to plough and fence ten acres of land
2 for each, and to pay to each five hundred dollars per annum in cash for the term of twenty years.
3 The first payment to the Walla-Walla chief to commence upon the signing of this treaty. To give
4 to the Walla-Walla chief three yoke of oxen, three yokes and four chains, one wagon, two
5 ploughs, twelve hoes, twelve axes, two shovels, and one saddle and bridle, one set of
6 wagon-harness, and one set of plough-harness, within three months after the signing of this
7 treaty.

8
9 To build for the son of Pio-pio-mox-mox one dwelling-house, and plough and fence five acres of
10 land, and to give him a salary for twenty years, one hundred dollars in cash per annum,
11 commencing September first, eighteen hundred and fifty-six. The improvement named in this
12 section to be completed as soon after the ratification of this treaty as possible.

13
14 It is further stipulated that Pio-pio-mox-mox is secured for the term of five years, the right to build
15 and occupy a house at or near the mouth of Yakama River, to be used as a trading-post in the
16 sale of his bands of wild cattle ranging in that district: And provided, also, That in consequence
17 of the immigrant wagon-road from Grand Round to Umatilla, passing through the reservation
18 herein specified, thus leading to turmoils and disputes between Indians and immigrants, and as
19 it is known that a more desirable and practicable route may be had to the south of the present
20 road, that a sum not exceeding ten thousand dollars shall be expended in locating and opening a
21 wagon-road from Powder River or Grand Round, so as to reach the plain at the western base of
22 the Blue Mountain, south of the southern limits of said reservation.

23
24 **ARTICLE 6.** The President may, from time to time at his discretion cause the whole or such
25 portion as he may think proper, of the tract that may now or hereafter be set apart as a
26 permanent home for those Indians, to be surveyed into lots and assigned to such Indians of the
27 confederated bands as may wish to enjoy the privilege, and locate thereon permanently, to a
28 single person over twenty-one years of age, forty acres, to a family of two persons, sixty acres,
29 to a family of three and not exceeding five, eighty acres; to a family of six persons and not
30 exceeding ten, one hundred and twenty acres; and to each family over ten in number, twenty
31 acres to each additional three members; and the President may provide for such rules and
32 regulations as will secure to the family in case of the death of the head thereof, the possession
33 and enjoyment of such permanent home and improvement thereon; and he may at any time, at
34 his discretion, after such person or family has made location on the land assigned as a
35 permanent home, issue a patent to such person or family for such assigned land, conditioned
36 that the tract shall not be aliened or leased for a longer term than two years, and shall be exempt
37 from levy, sale, or forfeiture, which condition shall continue in force until a State constitution,
38 embracing such land within its limits, shall have been formed and the legislature of the State
39 shall remove the restriction: Provided, however, That no State legislature shall remove the
40 restriction herein provided for without the consent of Congress: And provided, also, That if any
41 person or family, shall at any time, neglect or refuse to occupy or till a portion of the land
42 assigned and on which they have located, or shall roam from place to place, indicating a desire
43 to abandon his home, the President may if the patent shall have been issued, cancel the
44 assignment, and may also withhold from such person or family their portion of the annuities or
45 other money due them, until they shall have returned to such permanent home, and resumed the
46 pursuits of industry, and in default of their return the tract may be declared abandoned, and
47 thereafter assigned to some other person or family of Indians residing on said reservation: And
48 provided, also, That the head chiefs of the three principal bands, to wit, Pio-pio-mox-mox,
49 Weyatenatmany, and Wenap-snoot, shall be secured in a tract of at least one hundred and
50 sixty acres of land.

51
52 **ARTICLE 7.** The annuities of the Indians shall not be taken to pay the debts of individuals.

53
54 **ARTICLE 8.** The confederated bands acknowledge their dependence on the Government of the

1 United States and promise to be friendly with all the citizens thereof, and pledge themselves to
2 commit no depredation on the property of such citizens, and should any one or more of the
3 Indians violate this pledge, and the fact be satisfactorily proven before the agent, the property
4 taken shall be returned, or in default thereof, or if injured or destroyed, compensation may be
5 made by the Government out of their annuities; nor will they make war on any other tribe of
6 Indians except in self-defense, but submit all matter of difference between them and other
7 Indians, to the Government of the United States or its agents for decision, and abide thereby; and
8 if any of the said Indians commit any depredations on other Indians, the same rule shall prevail
9 as that prescribed in the article in case of depredations against citizens. Said Indians further
10 engage to submit to and observe all laws, rules, and regulations which may be prescribed by the
11 United States for the government of said Indians.

12
13 **ARTICLE 9.** In order to prevent the evils of intemperance among said Indians, it is hereby
14 provided that if any one of them shall drink liquor, or procure it for others to drink, (such one)
15 may have his or her proportion of the annuities withheld from him or her for such time as the
16 President may determine.

17
18 **ARTICLE 10.** The said confederated bands agree that, whenever in the opinion of the President
19 of the United States the public interest may require it, that all roads highways and railroads shall
20 have the right of way through the reservation herein designated or which may at any time
21 hereafter be set apart as a reservation for said Indians.

22
23 **ARTICLE 11.** This treaty shall be obligatory on the contracting parties as soon as the same
24 shall be ratified by the President and Senate of the United States. In testimony whereof, the said
25 I. I. Stevens and Joel Palmer, on the part of the United States, and the undersigned chiefs,
26 headmen, and delegates of the said confederated bands, have hereunto set their hands and
27 seals, this ninth day of June, eighteen hundred and fifty-five.

28		
29	Isaac I. Stevens, (L.S.)	Five Crows, his x mark. (L.S.)
30		
31	Governor and Superintendent Washington	Stocheania, his x mark. (L.S.)
32	Territory	
33		Mu-howlish, his x mark. (L.S.)
34	Joel Palmer, (L.S.)	
35		Lin-tin-met-cheania, his x mark. (L.S.)
36	Superintendent Indian Affairs, O.T.	
37		Petamyo-mox-mox, his x mark. (L.S.)
38	Pio-pio-mox-mox, his x mark, head chief of	
39	Walla-Wallas. (L.S.)	Watash-te-waty, his x mark. (L.S.)
40		
41	Meani-teat or Pierre, his x mark. (L.S.)	She-yam-na-kon, his x mark. (L.S.)
42		
43	Weyatenatemany, his x mark, head chief of	Qua-chim, his x mark. (L.S.)
44	Cayuses. (L.S.)	
45		Te-walca-temany, his x mark. (L.S.)
46	Wenap-snoot, his x mark, head chief of	
47	Umatilla. (L.S.)	Keantoan, his x mark. (L.S.)
48		
49	Kamaspello, his x mark. (L.S.)	U-wait-quaick, his x mark. (L.S.)
50		
51	Steachus, his x mark. (L.S.)	Tilch-a-waix, his x mark. (L.S.)
52		
53	Howlish-wampo, his x mark. (L.S.)	La-ta-chin, his x mark. (L.S.)
54		

1	Kacho-rolich, his x mark. (L.S.)	Na-kas, his x mark. (L.S.)
2		
3	Kanocey, his x mark. (L.S.)	Stop-cha-yeou, his x mark. (L.S.)
4		
5	Som-na-howlish, his x mark. (L.S.)	He-yeau-she-keaut, his x mark. (L.S.)
6		
7	Ta-we-way, his x mark. (L.S.)	Sha-wa-way, his x mark. (L.S.)
8		
9	Ha-hats-me-cheat-pus, his x mark. (L.S.)	Tam-cha-key, his x mark. (L.S.)
10		
11	Pe-na-cheanit, his x mark. (L.S.)	Te-na-we-na-cha, his x mark. (L.S.)
12		
13	Ha-yo-ma-kin, his x mark. (L.S.)	Johnson, his x mark. (L.S.)
14		
15	Ya-ca-lox, his x mark. (L.S.)	Whe-la-chey, his x mark. (L.S.)

16
17 ***Signed in the presence of - -***

18		
19	James Doty, secretary treaties	James Coxey, his x mark, interpreter
20		
21	Wm. C. McKay, secretary treaties	Patrick McKenzie, interpreter
22		
23	C. Chirouse, O.M.I.	Arch. Gracie, Jr., brevet second lieutenant, Fourth Infantry
24		
25	A. D. Pamburn, interpreter	
26		R. R. Thompson, Indian agent
27	John Whitford, his x mark, interpreter	
28		R. B. Metcalfe, Indian sub-agent
29	Mathew Dofa, his x mark, interpreter	
30		
31	William Craig, interpreter	

32
33 Ratified Mar. 8, 1859
34 Proclaimed Apr. 11, 1859
35

1 ***Appendix B — Response Letters From Cooperating***
2 ***Agencies***

3
4
5

Currently not available in electronic format.

Appendix C — Floodplain/Wetlands Assessment

Floodplains and wetlands on the Hanford Site (including portions of the Columbia River, Yakima River, and Cold Creek floodplains; associated wetlands; and other wetlands and deep water habitats on the Hanford Site) could be affected under each of the land-use alternatives that are identified in this Final HCP EIS. The magnitude of these effects depends, in part, on the land-use designations associated with the floodplains and wetlands under each alternative. Floodplains and wetlands are protected from any adverse Federal actions by several laws, regulations, and orders. This Floodplain/Wetlands Assessment identifies the floodplains and wetlands potentially affected by future land-use designations under each alternative. This appendix also provides a brief discussion of floodplain and wetland natural functions and values, as well as the steps to minimize impacts on floodplains and wetlands. The alternatives identified in this assessment are described in detail in Chapter 3.

C.1 Introduction

Under Executive Order 11988, *Floodplain Management*, and Executive Order 11990, *Protection of Wetlands*, Federal agencies are required to consider the impact of proposed actions on wetlands and floodplains. The U.S. Department of Energy (DOE) requirements for compliance with Executive Orders 11988 and 11990 are found in Title 10, *Code of Federal Regulations* (CFR), Part 1022, “Compliance with Floodplain/Wetlands Environmental Review Requirements.” A floodplain/wetlands assessment consists of a description of the proposed action, a discussion of its effects on the floodplain and wetlands, and consideration of the alternatives. The Executive Orders are intended to be used by Federal agencies to implement floodplain and wetland requirements through existing procedures, such as those established to implement the *National Environmental Policy Act of 1969* (NEPA).

If DOE determines that there is no alternative to implementing a proposed project in a floodplain or wetland, a brief statement of findings must be prepared. This statement of findings would include a description of the proposed action, an explanation indicating why the project must be located in a floodplain or wetland, a list of alternatives considered, measures that will be taken to comply with state and local floodplain protection standards, and a description of the steps to be taken to minimize adverse impacts to the floodplain or wetland.

C.1.1 Floodplains Potentially Affected

A floodplain is defined as “. . . lowlands adjoining inland and coastal waters and relatively flat areas and flood-prone areas of offshore islands including, at a minimum, that area inundated by a 1 percent or greater chance flood in any given year. The base floodplain is defined as the 100-year (1.0 percent) floodplain. The critical floodplain is defined as the 500-year (0.2 percent) floodplain. . .” (10 CFR 1022).

When maintained in a natural state, floodplains provide valuable services by moderating the extent of flooding, thereby (1) reducing the risk of downstream flood loss; (2) minimizing the impacts of floods on human safety, health, and welfare; and (3) providing support to wetlands, fish, and wildlife.

For the purposes of this assessment, the extent of the 100-year floodplains for the Columbia River, Yakima River, and Cold Creek was derived from a number of sources (Neitzel et al. 1997; USACE 1970; Skaggs and Walters 1981; and DOE 1987). The water flow of both the Yakima and Columbia Rivers is regulated by dams located upstream of the Hanford Site. This flow regulation serves to significantly dampen the 100-year floods. For example, on the Hanford Site, the dam-regulated, 100-year flood for the Columbia River only extends beyond the

1 existing riverbed in certain isolated and shallow zones. A 100-year flood would inundate marshy
2 areas located upstream of the 100-B Reactor and a portion of the low-lying horn of land located
3 downstream of the 100-D Reactor, but is not expected to completely inundate the islands in the
4 Columbia River. Of the 1,142 ha (2,821 ac) of land area associated with these islands, 744 ha
5 (1,838 ac) would be inundated by a 100-year flood.
6

7 Although the 100-year floodplain of the ephemeral Cold Creek has not been mapped, it is
8 possible to draw preliminary conclusions from a 1981 Flood Risk Analysis (Skaggs and Walters
9 1981) to determine the historical extent of the watershed. In this analysis, at least two distinct
10 segments were described: (1) an upper reach extending from the headwaters to just south of
11 the 200 West Area, and (2) a lower reach extending from near the confluence with Dry Creek,
12 which is located on the Fitzner/Eberhardt Arid Lands Ecology Reserve (ALE Reserve), to Horn
13 Rapids on the Yakima River. As the upper reach of Cold Creek enters the Hanford Site,
14 gradients diminish significantly. As a result, the channel becomes braided and interconnected.
15 The floodplain essentially follows State Highway 240 through the Hanford Site. Conservative
16 values for precipitation events and magnitudes of infiltration, surface roughness, and topographic
17 parameters were used for the preliminary estimates of probable maximum flooding conditions
18 for the Cold Creek watershed. Based on the estimate and location of the probable maximum
19 flood, it is possible to estimate the potential impact of Hanford Site remedial actions on the much
20 smaller 100-year floodplain of Cold Creek. The 100-year floodplain of Cold Creek probably
21 would not include land within the boundary of the Central Plateau geographic area.
22

23 **C.1.2 Wetlands Potentially Affected**

24
25 The *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (EPA
26 et al. 1989) defines wetlands by the presence of hydric soils, hydrophytic vegetation, and
27 wetlands hydrology. Hydric soils are soils with the seasonal high-water table within 2.5 cm
28 (1 in.) of the surface of the ground for at least 1 week of the growing season. As a result, hydric
29 soils typically experience an oxygen depletion. Hydrophytic vegetation may grow in soils at least
30 periodically depleted of oxygen as a result of water saturation. Hydrophytic vegetation might be
31 able to grow only in wetlands (obligate wetlands vegetation) or may be found in upland
32 environments as well (facultative wetlands vegetation). Wetlands hydrology requires permanent
33 or temporary inundation of soils for at least one week during the growing season and the
34 resultant depletion of oxygen. All three conditions must be met for a site to be defined as a
35 wetland.
36

37 Wetlands serve a variety of functions within the ecosystem. Consideration of these
38 wetland functions is essential in the evaluation of potential impacts. Wetland functions and
39 values include the following:
40

- 41 C **Water quality preservation** -- Wetlands help maintain and improve the water quality
42 of rivers, lakes, and estuaries. Because wetlands are located between uplands and
43 water resources, many wetlands can intercept runoff from the land before it reaches
44 open water. As runoff and surface water pass through, wetlands remove or
45 transform pollutants through physical, chemical, and biological processes.
46
- 47 C **Flood protection** -- Wetlands help protect adjacent and downstream properties
48 from potential flood damage by receiving and temporarily storing water during periods
49 of high runoff or high flows in adjacent streams. Wetlands within and upstream of
50 urban areas are particularly valuable for flood protection because the impervious
51 surface in urban areas greatly increases the rate and volume of runoff, thereby
52 increasing the risk of flood damage.
53
- 54 C **Erosion control** -- By virtue of their place in the landscape, riparian wetlands, salt

1 marshes, and marshes located at the margin of lakes and rivers protect shorelines
2 and streambanks against erosion. Wetland plants hold the soil in place with their
3 roots, absorb wave energy, and reduce the velocity of stream or river currents.
4

5 C **Biological productivity** -- Wetlands are among the most productive ecosystems in
6 the world. The unstable nature of many wetlands produces a great diversity of
7 niches that, in turn, support a great diversity of plant and animal species. Numerous
8 species of microbes, plants, insects, amphibians, reptiles, birds, fish, and other
9 wildlife depend in some way on wetlands for at least part of their life cycles.
10 Wetlands with seasonal hydrologic pulsing are the most productive. Wetland plants
11 play an integral role in the ecology of the watershed by providing breeding and
12 nursery sites, resting areas for migratory species, and refuge from predators.
13

14 C **Fish and wildlife habitat** -- Diverse species of plants, insects, amphibians, reptiles,
15 birds, fish, and mammals depend on wetlands for food, habitat, or temporary shelter.
16 Many bird species use wetlands as a source of food, water, nesting material, or
17 shelter. Migratory waterbirds rely on wetlands for staging areas, resting, feeding,
18 breeding, or nesting grounds.
19

20 C **Cultural value** -- Wetlands have archaeological, historical, and cultural values.
21 Societies traditionally have formed along bodies of water, and artifacts found in
22 wetlands provide information about these societies.
23

24 C **Aesthetic value** -- Historically, painters and writers have used wetlands as their
25 subject matter. Today, such artists are often joined by others with cameras,
26 camcorders, and binoculars.
27

28 C **Economic value** -- More than half of all adults in the United States hunt, fish,
29 birdwatch, or photograph wildlife, spending a total of \$59.5 billion annually (OTA
30 1993). Waterfowl hunters alone spend more than \$600 million annually to harvest
31 wetland-dependent birds (OTA 1993).
32

33 C **Scientific value** -- Scientists value the processes of wetlands individually,
34 particularly the role of wetlands in the global cycles of carbon, nitrogen, and water.
35 Many scientists consider the removal of carbon dioxide from the atmosphere the
36 most valuable function of wetlands (OTA 1993). Carbon sequestration is thought to
37 be an important process in reducing the greenhouse effect and the threat of global
38 warming.
39

40 Wetlands regulated under the *Clean Water Act of 1977* generally include swamps,
41 marshes, bogs, and similar areas. The Hanford Site has a number of cribs, trenches, and
42 cooling water ponds, a few of which support diverse wetland communities. Because these
43 features serve waste water treatment or cooling water functions, they are not regulated as
44 wetlands under the *Clean Water Act of 1977* and are not addressed in the scope of this
45 assessment.
46

47 Wetlands on the Hanford Site have been identified from several sources, including the
48 *National Wetlands Inventory* maps (USFWS 1976), *Priority Habitats & Species and Natural*
49 *Heritage Data (Maps)* (WDFW 1993), and *Habitat Types on the Hanford Site: Wildlife and Plant*
50 *Species of Concern* (PNL 1993c). Wetlands on the Hanford Site have not been formally
51 delineated, but most Hanford Site wetlands are found in poorly developed riparian zones along
52 the Columbia River and in association with irrigation runoff in the Wahluke Slope geographic
53 area. Because of strong currents, rocky substrate, and often widely fluctuating water levels, the
54 Columbia River supports a poorly developed riparian vegetation community. Other wetlands

1 present on the Hanford Site include several springs and ephemeral seeps on the ALE
2 Reserve geographic area.

3
4 Columbia yellowcress, which is a State of Washington endangered species, occurs in
5 wetlands along the Hanford Reach of the Columbia River. Pacific Northwest National Laboratory
6 biologists recently found 18 separate groups of Columbia yellowcress along the shoreline of the
7 300 Area (WHC 1993). This species is usually found near the water line and is often submerged
8 during periods of high water.

9 10 11 **C.2 Potential Impacts on Floodplains and Wetlands**

12
13 The following discussion of the proposed action evaluates potential impacts to wetlands
14 and floodplains on the Hanford Site that could be associated with land-use designations under
15 each alternative. The discussion is organized by geographic areas as defined for the Hanford
16 Site in the *Final Report of the Hanford Future Site Uses Working Group* (FSUWG 1992) (except
17 that the Columbia River and Reactors on the River geographic areas defined in the final report
18 have been combined as the Columbia River Corridor geographic area), and is followed by a
19 summary of impacts for each alternative. This organization takes advantage of similarities in
20 land-use designations across alternatives for some geographic areas.

21
22 The Columbia River and Yakima River floodplains occur on the Hanford Site
23 (Figure C-1). The floodplain associated with the Columbia River occurs along the entire length
24 of the Hanford Reach and includes many of the islands in the river. A small portion of the
25 Yakima River floodplain intersects the southern edge of the Hanford Site where State Highway
26 240 crosses onto the Site. A probable maximum floodplain associated with Cold Creek and a
27 tributary, Dry Creek, has also been identified (Figure C-2). These creeks are ephemeral
28 streams within the Yakima River drainage system that drain areas to the west of the Hanford
29 Site and cross the southern portion of the Hanford Site toward the Yakima River. Surface flow,
30 when it occurs in Cold Creek and Dry Creek, infiltrates rapidly and disappears into the surface
31 sediments in the western portion of the Hanford Site. The natural and beneficial functions of the
32 floodplains could be adversely affected by activities that might occur within the floodplains of
33 Cold Creek, the Columbia River, or the Yakima River under certain land-use designations.

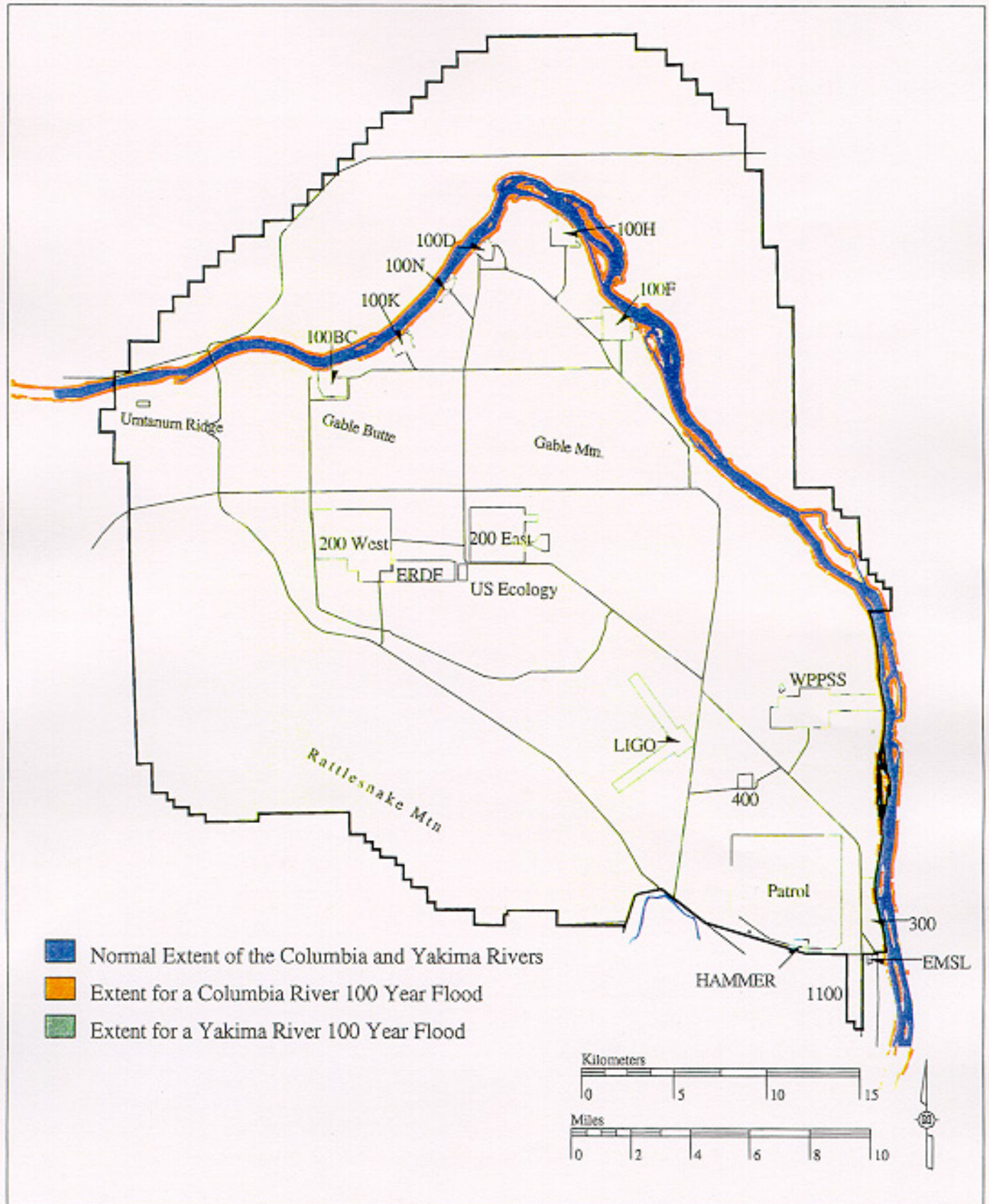
34
35 Wetlands on the Hanford Site are associated with the Columbia River, irrigation runoff,
36 and irrigation water wasteways from the Wahluke Slope; and riparian zones associated with
37 spring-fed streams on the ALE Reserve (Figure C-3). Many of the beneficial wetland functions
38 could be adversely affected by activities that might occur under certain land-use designations.

39 40 **C.2.1 No-Action Alternative**

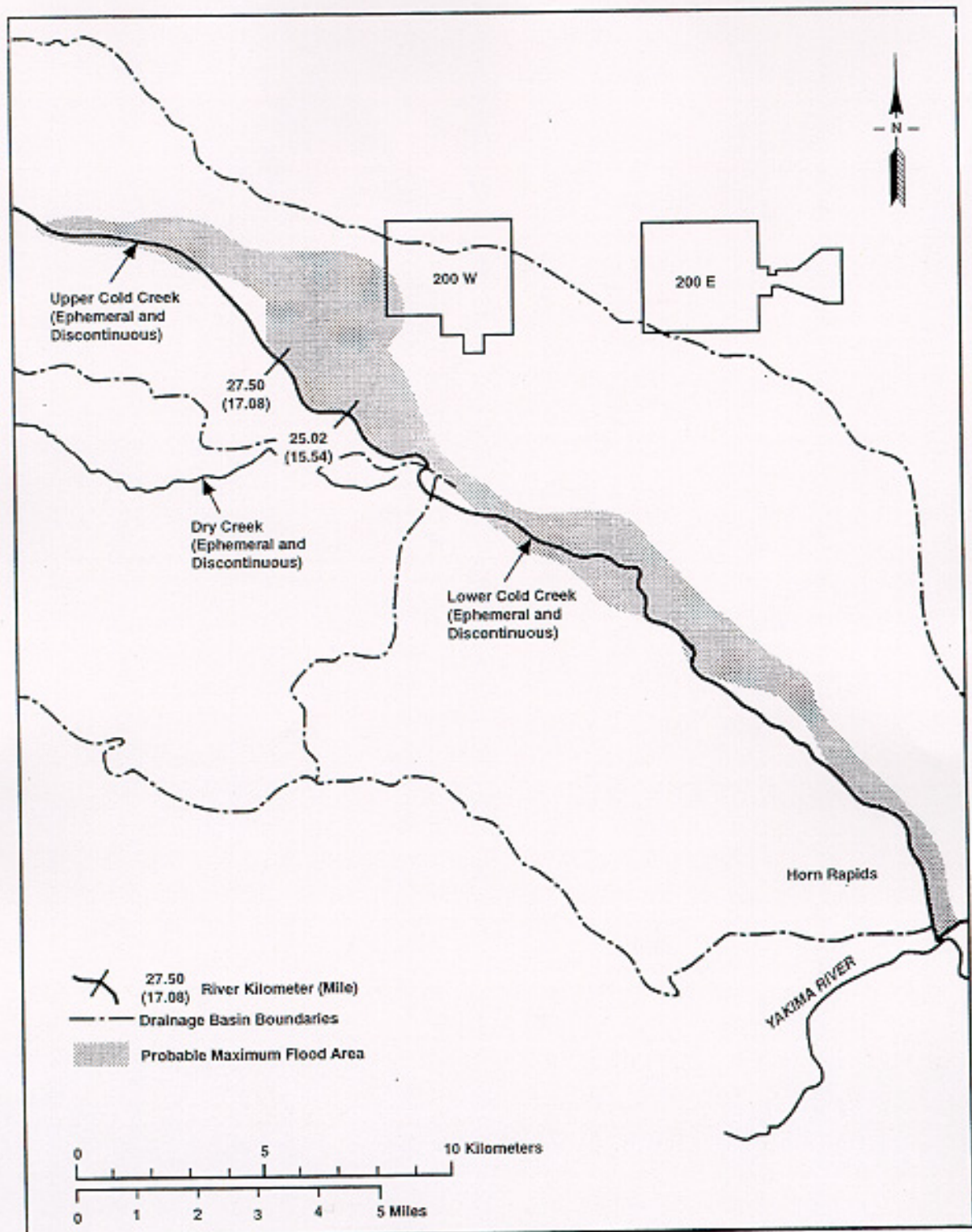
41
42 Under the No-Action Alternative, impacts to wetlands and floodplains in the ALE Reserve
43 would be minimal. The area is presently managed in a way similar to a Preservation
44 designation. This management is anticipated to continue into the future. However, in the
45 absence of a formal designation, proposals to develop parcels located in the ALE Reserve could
46 be considered.

47
48 The USFWS would manage the Wahluke Slope as the Saddle Mountain National Wildlife
49 Refuge (similar to Preservation) and the Wahluke Wildlife Recreation Area (similar to
50 Conservation). Impacts to wetlands and floodplains in the Wahluke Slope geographic area
51 would be minimal as long as these areas continue to be managed in similar ways.

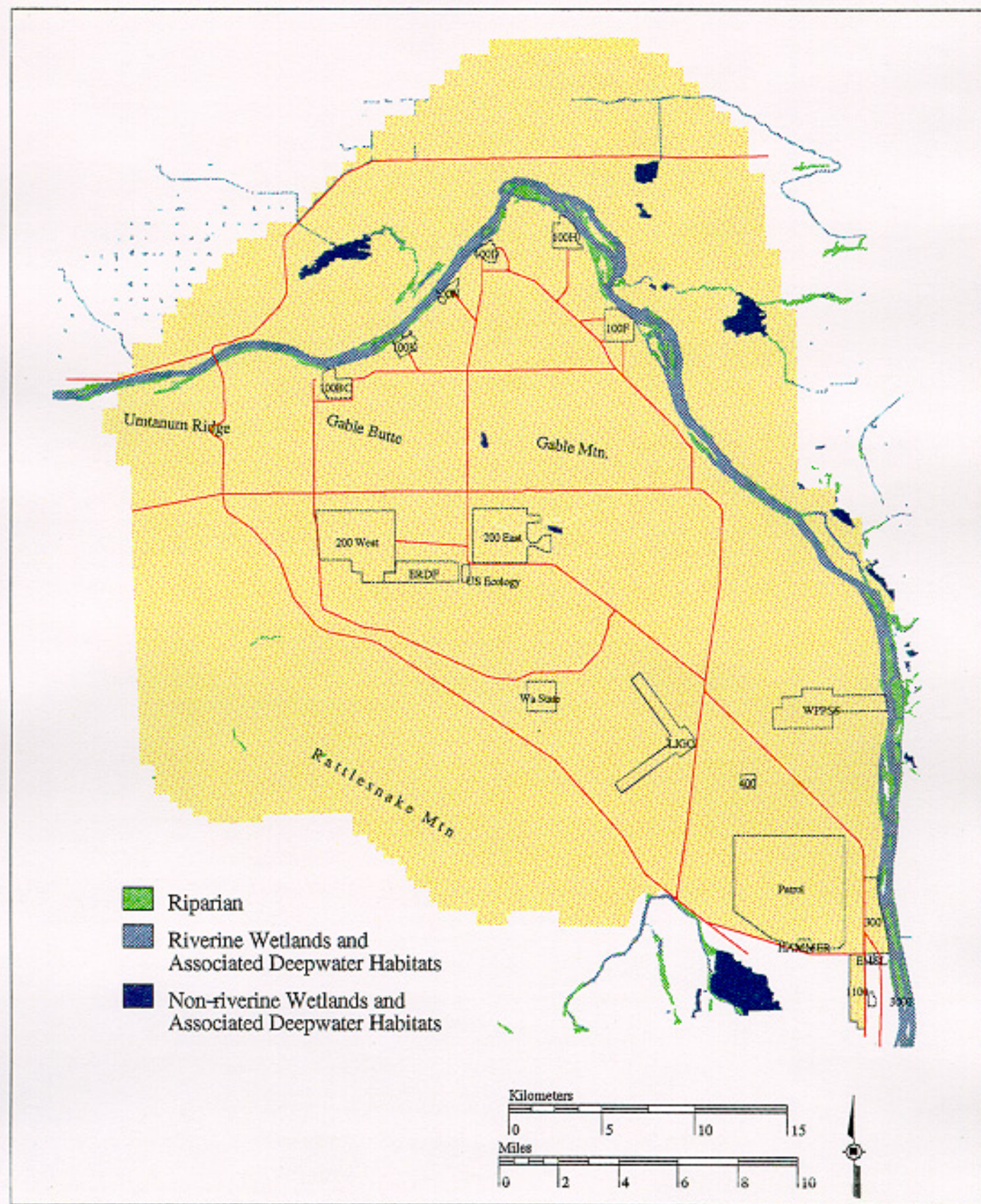
1
2
3
4
5
Figure C-1. 100-Year Floodplain of the Columbia and Yakima Rivers.



1
2
3
4
5
Figure C-2. Extent of the Probable Maximum Flood in the Cold Creek Area.



1 **Figure C-3. Wetlands and Deep Water Habitats of the**
 2 **Hanford Site.**
 3
 4
 5
 6



1 The No-Action Alternative would also maintain the status quo for the Columbia River
2 Corridor. The river could be used for recreation, but access to the islands would not be
3 permitted.
4

5 The Central Plateau would continue to be used for waste management (Industrial-
6 Exclusive use) under the No-Action Alternative. Although disturbance of wetlands and
7 development of floodplains would be anticipated to be high with this land-use, wetlands and
8 floodplains are essentially absent in this area. The lack of wetlands and floodplains is a primary
9 consideration in designating the area for Industrial-Exclusive land use.
10

11 The No-Action Alternative does not include any particular land-use designations for the
12 remainder. All areas could potentially be developed if appropriate uses were identified in the
13 future. Floodplains and wetlands along the Columbia River could be impacted by future
14 development.
15

16 **C.2.2 Preferred Alternative** 17

18 Although the Preferred Alternative would designate an area immediately south of State
19 Highway 240 for Conservation (Mining) to allow for possible development of a quarry within the
20 ALE Reserve, no wetlands are located in this area. No impacts to wetlands or floodplains are
21 anticipated to occur under the Preservation designation. The area designated for Conservation
22 (Mining) is adjacent to or located within the Cold Creek probable maximum floodplain, and
23 infrastructure developed to support a quarry site and transport materials would cross the
24 floodplain. This infrastructure could cause some small impacts to floodplain function because
25 the infrastructure could interfere with movement of water under flood conditions.
26

27 The Wahluke Slope is designated for Preservation under the Preferred Alternative. The
28 Preservation designation is applied to all wetland and floodplain areas within this area. Impacts
29 to wetlands on the Wahluke Slope would be minimal.
30

31 Land-use designations along the Columbia River Corridor would include Preservation,
32 Conservation (Mining), Low-Intensity Recreation, and High-Intensity Recreation. The
33 Preservation designation would be applied to the river islands, and the Conservation (Mining)
34 designation would encompass lands surrounding the surplus reactors, but not near the River.
35 Low-Intensity Recreation designations apply to places with existing boat launches that are not
36 presently available for public use, to the river itself, and to an area along the Columbia River
37 west of the B Reactor. High-Intensity Recreation is associated with the B Reactor, which may
38 be designated as a National Historic Landmark and open to tourists.
39

40 Under the High- and Low-Intensity Recreation land-use designations, impacts to
41 floodplains would be minimal. However, increased use of recreational watercraft could lead to
42 damage to wetlands. High-Intensity Recreation would lead to wetland damage due to intensive
43 use of recreational watercraft, potential off-road vehicle traffic, and foot traffic. Wetlands that
44 would be adversely impacted would be those in the vicinity of the areas designated for High-
45 Intensity Recreation, with impacts diminishing with distance from the high use areas.
46

47 Increased activity in the river under the Conservation designation would also potentially
48 lead to damage to wetlands associated with the Columbia River riparian zone. Impacts to
49 wetlands and floodplains associated with the Columbia River are influenced by the land-use
50 designations adjacent to the river, with more aggressive use of the land leading to a greater
51 degree of damage.
52

53 The Preferred Alternative would designate the Central Plateau for Industrial-Exclusive
54 use. No wetlands or floodplains are present within the Central Plateau and no impacts would be
55 anticipated. The lack of wetlands or floodplains in this geographic area is a primary

1 consideration in designating the area for Industrial-Exclusive land use.

2
3 The Preferred Alternative would designate portions of the remainder of the Hanford Site
4 for Preservation, Conservation (Mining), Industrial use, Low- and High-Intensity Recreation, and
5 Research and Development. Areas within the Cold Creek floodplain would be designated for
6 Conservation (Mining) and Research and Development. Areas within the Yakima River
7 floodplain would be designated for Industrial use and Research and Development. These
8 activities are anticipated to have little impact on the floodplain because development would be
9 minimal and the affected areas are small. Areas along the Columbia River designated for Low-
10 and High-Intensity Recreation could adversely impact wetlands in the vicinity of the land
11 designated for these uses. No wetlands are located within the areas designated for Industrial
12 use.

13 **C.2.3 Alternative One**

14
15
16 Alternative One would designate the majority of the Hanford Site as Preservation
17 consistent with the expansion of the Saddle Mountain National Wildlife Refuge. No impacts to
18 wetlands or floodplains are anticipated to occur under the Preservation designation.

19
20 Alternative One would designate land along the Columbia River Corridor as Preservation,
21 and for Low- and High-Intensity Recreation. The Preservation designation would apply to small
22 upland areas, the river islands, and land adjacent to the river. Low-Intensity Recreation
23 designations apply to places with existing boat launches that are not presently available for
24 public use, to the river itself, and to an area along the Columbia River west of the B Reactor.
25 High-Intensity Recreation is associated with the B Reactor, which may be designated as a
26 National Historic Landmark and open to tourists.

27
28 Under the High- and Low-Intensity Recreation land-use designations, impacts to
29 floodplains would be low. High-Intensity Recreation could lead to wetland damage due to
30 intensive use of recreational watercraft, potential off-road vehicle traffic, and foot traffic.
31 Increased activity in the river under the Conservation designation could potentially lead to
32 damage to wetlands associated with the Columbia River riparian zone. Impacts to wetlands and
33 floodplains associated with the Columbia River are influenced by the land-use designations
34 adjacent to the river, with more aggressive use of the land leading to a greater degree of
35 damage. Alternative One designates all land on both sides of the Columbia River for
36 Preservation, with the exception of a small area designated for High-Intensity Recreation in the
37 vicinity of the B Reactor. Impacts to wetlands and floodplains associated with the Columbia
38 River would be minimal under this alternative.

39
40 Alternative One would designate the Central Plateau for Industrial-Exclusive use. No
41 wetlands or floodplains are present within the Central Plateau and no impacts would be
42 anticipated. The lack of wetlands or floodplains in this geographic area is a primary
43 consideration in designating the area for Industrial-Exclusive use.

44
45 Alternative One includes an area designated for Industrial use in the South 600 Area. No
46 wetlands or floodplains are included in areas designated for this use pattern. Impacts to
47 floodplains and wetlands under this alternative would be minimal or nonexistent.

48 **C.2.4 Alternative Two**

49
50
51 Wetland areas on the ALE Reserve and the Wahluke Slope are designated for
52 Preservation under Alternative Two. Under this designation, no adverse impacts to the wetlands
53 or floodplains would be anticipated. The Preservation designation would provide protection for
54 the wetlands and floodplains from disturbance and development. All lands along the Columbia
55 River would also be designated for Preservation under Alternative Two except for the area

1 associated with the B Reactor, which is designated for High-Intensity Recreation. Impacts to
2 wetlands and floodplains associated with the river would be minimal.
3

4 Alternative Two would designate the Central Plateau for Industrial-Exclusive use. No
5 wetlands or floodplains are present within the Central Plateau and no impacts would be
6 anticipated. The lack of wetlands or floodplains in this geographic area is a primary
7 consideration in designating the area for Industrial-Exclusive land use.
8

9 Alternative Two includes an area designated for Industrial use and Preservation within the
10 “All Other Areas” geographic area. No areas within wetlands or floodplains are designated for
11 this use pattern. Impacts to floodplains and wetlands under this alternative would be minimal or
12 nonexistent.
13

14 **C.2.5 Alternative Three**

15
16 The ALE Reserve would be designated for Conservation (Mining) areas under Alternative
17 Three, including wetland and floodplain areas. Impacts to wetlands and floodplains that could
18 occur under a Conservation (Mining) designation are anticipated to be similar to impacts under
19 the Preservation designation. Mining activities would probably be similar to quarry operations
20 and would involve a quarry site operation. These operations would be localized and would be
21 anticipated to have minimal impact on floodplains.
22

23 Alternative Three designates portions of the Wahluke Slope for Agriculture, Conservation
24 (Mining and Grazing), and High-Intensity Recreation. Wetlands within the Wahluke Slope are
25 located in areas designated for Agriculture or Conservation (Mining and Grazing). Up to 261 ha
26 (645 ac) of wetlands and associated deep water habitats could be directly and adversely
27 impacted by Agriculture. Impacts to the remaining 739 ha (1,825 ac) of wetlands in the Wahluke
28 Slope could also include non-point source runoff of agricultural chemicals, and impacts to
29 wetlands due to runoff are anticipated to be minimal. Wetlands in this area exist as a result of
30 irrigation runoff from agricultural areas surrounding the Wahluke Slope. The Agriculture
31 designation also applies to land within the “Red Zone Area” designated for no irrigation. If
32 irrigated agriculture were ultimately developed in this area, increased slumping of the White
33 Bluffs would be expected to occur. This increased slumping would adversely affect existing
34 wetlands and riparian habitat along the Columbia River, and would cover any floodplain in the
35 area of the slump.
36

37 The Columbia River would continue to be used as a recreational river with additional
38 development associated with the High-Intensity Recreation designation. The Low-Intensity
39 Recreation designation under Alternative Three applies to a trail enabling access to the river
40 from State Highway 24 to the north of the river and running along the river. Although portions of
41 this trail would be located within the Columbia River floodplain, impacts to the floodplain would
42 be minimal. A small area adjacent to the Columbia River is designated for High-Intensity
43 Recreation and this designation would be anticipated to have a potential for adverse impacts to
44 the 5 ha (12 ac) of riparian habitat in the area designated for High-Intensity Recreation.
45

46 Under the High- and Low-Intensity Recreation designations, impacts to floodplains would
47 be minimal. However, increased use of recreational watercraft could lead to damage to
48 wetlands. High-Intensity Recreation could lead to wetland damage due to intensive use of
49 recreational watercraft, potential off-road vehicle traffic, and foot traffic. Wetlands that could be
50 adversely impacted would be those in the vicinity of the areas designated for High-Intensity
51 Recreation, with impacts diminishing with distance from the high use areas.
52

53 Alternative Three would designate the Central Plateau for Industrial-Exclusive use. No
54 wetlands or floodplains are present within the Central Plateau and no impacts would be
55 anticipated. The lack of wetlands or floodplains in this geographic area is a primary

1 consideration in designating the area for Industrial-Exclusive use.
2

3 Alternative Three would designate areas within the remainder of the Hanford Site for
4 Conservation (Mining), Industrial Use, Research and Development, Low-Intensity Recreation,
5 and High-Intensity Recreation. The Cold Creek floodplain overlaps with areas designated for
6 Conservation (Mining), Research and Development, and High-Intensity Recreation; the Yakima
7 River floodplain overlaps an area designated for High-Intensity Recreation. These land-use
8 designations, especially High-Intensity Recreation, could adversely impact these floodplains.
9

10 **C.2.6 Alternative Four** 11

12 Wetland areas on the ALE Reserve would be designated for Preservation. No impacts to
13 wetlands or floodplains are anticipated to occur under the Preservation designation. An area
14 immediately south of State Highway 240 would be designated for Conservation (Mining) to allow
15 for possible development of a quarry. The area designated for Conservation (Mining) under
16 Alternative Four is adjacent to or located within the Cold Creek probable maximum floodplain,
17 and infrastructure developed to support a quarry site and transport materials would cross the
18 floodplain. This infrastructure could cause some small impacts to floodplain function because
19 the infrastructure could interfere with movement of water under flood conditions. Potential
20 impacts to wetlands and floodplains in the ALE Reserve would be similar to impacts under the
21 Preservation designation. Mining activities would probably be similar to quarry operations and
22 would involve a quarry-site operation that would have minimal impact on the Cold Creek
23 floodplain.
24

25 Alternative Four would designate the Wahluke Slope and all lands on both sides of the
26 Columbia River for Preservation, and for High- and Low-Intensity Recreation. Impacts to
27 wetlands and floodplains in the Columbia River Corridor geographic area would be minimal, and
28 no adverse impacts to the wetlands or Columbia River floodplain on the Wahluke Slope
29 geographic area would be anticipated. The Preservation designation would provide protection
30 for the wetlands and floodplains from disturbance and development.
31

32 Alternative Four would designate the Central Plateau for Industrial-Exclusive use. No
33 wetlands or floodplains are present within the Central Plateau and no impacts would be
34 anticipated. The lack of wetlands or floodplains in this geographic area is a primary
35 consideration in designating the area for Industrial-Exclusive use.
36

37 Alternative Four would designate the majority of the land in the remainder of the Hanford
38 Site for Preservation and for Conservation. Areas would also be designated for Research and
39 Development and for Industrial use. All areas within the boundaries of wetlands and floodplains
40 would be designated for Preservation or Conservation, and impacts to these areas would be
41 negligible.
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Appendix D — Quarry Sites, Haul Roads, Railroads, and Cap Description

The need for mineral resources in support of Hanford Site remediation will likely require development or enlargement of quarries. One possible remediation technology that could be selected to isolate harmful substances from humans and the environment is construction of surface caps over the waste sites. Surface caps generally consist of successive layers of materials such as basalt riprap, sand, gravel, geotextile membranes, and asphalt. Materials required for cap construction could be obtained from sources located on or off the Hanford Site. Appendix D provides a description of a reference cap design (Section D.1) and identifies potential sources of materials required for cap construction (Section D.2). The reference cap provides a conservative estimate of materials that could be required for cap construction. Other cap designs that would require less material would be evaluated during the remediation process for each specific waste site. Quarries located on the Hanford Site would be constructed in areas with a designated land use that accommodates mining activities.

Two prospective quarries have been identified as potential sources of materials for construction of surface caps over waste sites: McGee Ranch and Pit 30. McGee Ranch would serve as a source of fine materials, and Pit 30 would provide coarser aggregates.

In addition to the above quarries, several potential sources of basalt that may be required for barrier construction have been tentatively identified and evaluated in an engineering study (BHI 1995). The basalt quarry would provide material for riprap and possibly for asphalt and asphalt-base layers of the reference barrier. Ten locations on or near the Hanford Site have been evaluated as candidate basalt quarry sites. Evaluations were based on qualifying criteria (i.e., proximity to the 200 Areas on the Hanford Site, basalt availability, suitability of basalt, and threatened and endangered species impacts) and engineering criteria (i.e., haul distance, safety, expansion potential, and land reclamation potential). Other important factors used in determining the suitability of a site for quarry development are the significant cultural, archaeological, and historical resources that might be present.

Cultural resource surveys indicate that the most favorable sites for basalt quarry development from an engineering perspective are the least favorable for development from a cultural resources perspective. The most favorable sites from an engineering perspective exhibit features valued by American Indian tribes for traditional cultural and religious reasons. Sites that are less favorable for quarry development from an engineering perspective typically consist of near-surface basalt sources that do not have the commanding view of the surrounding terrain that is valued by tribal members for traditional cultural and religious uses. Factors other than cultural resources (e.g., excavation requirements, transportation cost, and reclamation potential) make these near-surface basalt sources less desirable from an engineering perspective.

D.1 Reference Cap Design

To estimate the quantity of materials required for cap construction, a conservative reference cap design was used in the analysis. For additional conservatism, capping was assumed to be the selected remedy for most Hanford waste sites. Other cap designs involving less material and, therefore, having lower construction and environmental costs, would be considered in the evaluation of remediation technologies for use at each specific waste site. The reference cap design provides the most conservative estimates of materials that would be required.

1 The reference cap design, commonly referred to as the Hanford Cap or Hanford Barrier,
2 is a composite cap intended to protect waste sites from human intrusion, burrowing animals,
3 root penetration, and water infiltration. This reference cap was designed specifically for
4 conditions at the Hanford Site (i.e., a desert environment). The Hanford Cap consists of ten
5 layers divided into three zones (from top to bottom): a water retention and evapotranspiration
6 zone, a capillary break and biotic intrusion zone, and a low-permeability moisture barrier.
7

8 The water retention and evapotranspiration zone would consist of a 100-cm (39-in.)-thick
9 layer of silt and pea gravel over a 100-cm (39-in.)-thick layer of silt. The top layer of silt and pea
10 gravel would be seeded with various grasses. The silt and pea gravel layer would provide a
11 growing medium for vegetation as well as some resistance to wind and water erosion. Water
12 from precipitation would be held in this 200-cm (78-in.)-thick zone. The plants established on
13 top of this zone would extract water from the soil and, through evapotranspiration, return
14 moisture to the atmosphere.
15

16 The capillary break and biotic intrusion zone would be constructed of coarser materials
17 than the water retention zone and would consist of a sand filter, a gravel filter, and a layer of
18 crushed basalt. The capillary break would minimize water infiltration because moisture would
19 not flow into the larger gaps found in the coarser material until water pressure in the overlying
20 zone increased to nearly atmospheric pressure. The upper, fine-textured water retention zone
21 would need to be nearly saturated before moisture would break through into the underlying
22 coarse material. A geotextile filter would be located at the interface between the water retention
23 zone and the capillary break. The geotextile filter would impede downward migration of fine-soil
24 into the underlying sand filter, thereby maintaining the textural contrast that creates the capillary
25 break. The lack of moisture in the basalt layer would discourage root penetration. The larger
26 materials, particularly the crushed basalt, would provide a barrier to burrowing animals, root
27 penetration, and inadvertent human intrusion.
28

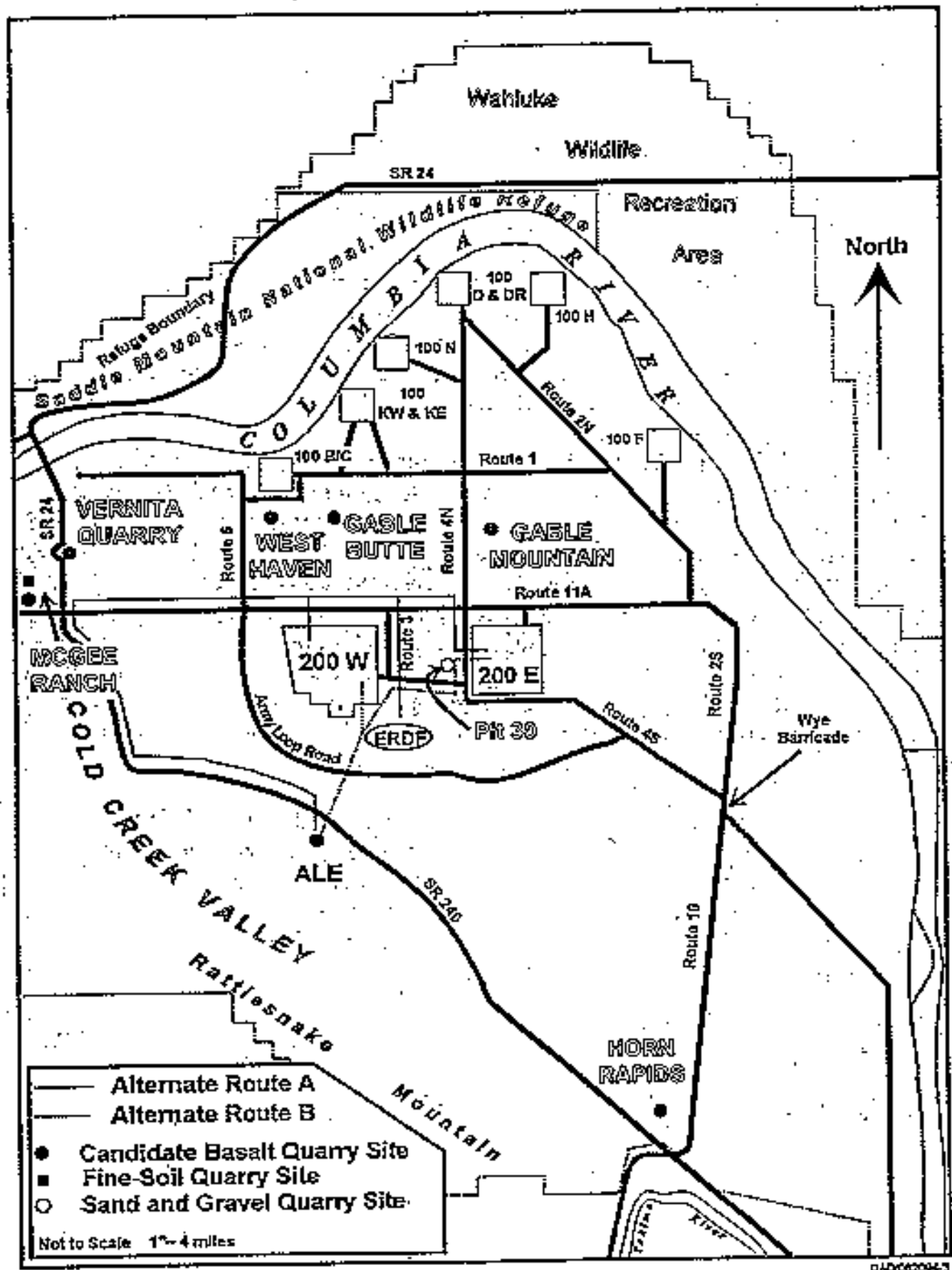
29 The low permeability moisture barrier would consist of a 30-cm (11.7-in.) crushed rock
30 or gravel drainage layer, a 10-cm (3.9-in.) asphaltic concrete layer, and a base course. This
31 zone would collect moisture that penetrated the upper layers and divert the moisture away from
32 the buried wastes that underlie this last zone. The low permeability moisture barrier would be
33 situated on top of the existing interim soil cover.
34
35

36 **D.2 Quarry Sites**

37

38 The following sites have been identified as preferred sources of cap materials (see
39 Figure D-1) based on engineering studies and other available information (BHI 1995;
40 Lindberg 1994; Skelly 1992). Final selection of quarry sites would depend on the amounts and
41 types of materials required, as determined on a site-specific basis. For example, use of a
42 modified *Resource Conservation and Recovery Act of 1976* (RCRA) C cap would require
43 minimal use of basalt and could make development of a basalt quarry unnecessary. Quarries
44 would be developed only in areas with future land-use designations consistent with mining
45 activities. The following sections discuss potential quarry sites and the land-use designations
46 for those sites under each alternative. Upon approval of the Record of Decision for the *Hanford* |
47 *Comprehensive Land-Use Plan Environmental Impact Statement* (HCP EIS), development of a |
48 quarry in an area without a land-use designation consistent with mining activities would require
49 changing the land-use designation for that area through the *National Environmental Policy Act of*
50 *1969* (NEPA) process.
51

Figure D-1. Preferred Sources of Cap Materials.



1 **D.2.1 McGee Ranch**
2

3 McGee Ranch has been identified as the preferred quarry site for fine-grained soils
4 potentially used in construction of caps for closure of waste sites at the Hanford Site.
5 Fine-grained soils might be used as topsoil for the cap.
6

7 McGee Ranch is located near the west boundary of the Hanford Site, north of State
8 Highway 24, west of State Highway 240, and south of the Columbia River. The site
9 encompasses 873 ha (2,182 ac) and has approximately 36.1 million m³ (47.3 million yd³) of
10 proven reserves of fine-textured soils (Lindberg 1994; Skelly 1992).
11

12 The Hanford Cultural Resources Laboratory conducted an archaeological survey of the
13 McGee Ranch (PNL 1992) and determined that historic and prehistoric cultural resources are
14 associated with this site. Prior to initiating activities at the McGee Ranch, requests for
15 determination of eligibility, findings of effect and adverse effect, and plans for mitigating adverse
16 impacts of the proposed action would be prepared and submitted to the appropriate Federal,
17 state, and tribal interests.
18

19 A survey for sensitive plant and animal species was conducted at the McGee Ranch site
20 in 1991 (Sonnichsen 1991). No threatened or endangered species were encountered.
21 Subsequent surveys of the site indicated the presence of two Washington State plant species of
22 concern, the crouching milkvetch and scilla onion (BHI 1995b). Two Washington State wildlife
23 species of concern, the loggerhead shrike and the sage sparrow, were observed at the McGee
24 Ranch site (BHI 1995). Swainson's hawk potentially could be associated with the McGee Ranch
25 site. Assuming total use of the site, operation of the McGee Ranch quarry would eradicate
26 652 ha (1,629 ac) of shrub-steppe habitat. This area serves as a wildlife movement corridor
27 between large blocks of shrub-steppe habitat on the Hanford Site and the Yakima Training
28 Center, located northwest of Hanford. Prior to initiating the development of the site, the State of
29 Washington and the U.S. Fish and Wildlife Service (USFWS) would be consulted regarding
30 potential impacts to sensitive species.
31

32 McGee Ranch is located in an area designated for Conservation (Mining) under
33 Alternative Three. Development of a quarry site at McGee Ranch would be consistent with the
34 land-use designation under this alternative. The area is designated for Preservation under the
35 Preferred Alternative and Alternatives One, Two, and Four; and this designation would preclude
36 use of McGee Ranch as a source of materials for construction of caps. McGee Ranch could
37 also be developed as a source of materials under the No-Action Alternative.
38

39 **D.2.2 Pit 30**
40

41 Pit 30 is an existing quarry site located immediately adjacent to the west side of the
42 200 East Area. Pit 30 could provide coarse sands and gravels required for cap construction.
43 Pit 30 is a disturbed site associated with pre-Hanford farming activity. Development and
44 expansion of Pit 30 would potentially impact 172 ha (426 ac), including the existing 49-ha
45 (120-ac) pit. A formal calculation of total reserves of coarse aggregate material is not available,
46 but reserves at Pit 30 are estimated to be approximately 15.3 million m³ (20 million yd³) of
47 material. Pit 30 would provide aggregate to be used as graded filter material in the reference
48 cap and other graded caps. Expansion of the existing pit would be necessary to provide
49 sufficient quantities of this material. Full use of the site would eradicate approximately 138 ha
50 (345 ac) of shrub-steppe habitat. Cultural resource and sensitive species surveys have not
51 been conducted for Pit 30 and would be required prior to excavation. Preliminary information
52 received from the USFWS and the State of Washington indicate that there are no sensitive
53 species associated with this site. Completion of these surveys and consultation with the State
54 of Washington and the USFWS would be required prior to initiating activity.
55

1 Pit 30 is located in an area designated for Industrial-Exclusive use under all alternatives.
2 Obtaining materials for construction of caps over waste sites would be consistent with this land-
3 use designation.
4

5 **D.2.3 Potential Basalt Quarry Sites**

6

7 Candidate quarry sites have been evaluated on the basis of qualifying criteria and
8 engineering criteria (BHI 1995). A broad range of possible quarry sites, including seven onsite
9 candidate quarries and three offsite privately operated quarries, were addressed. Candidate
10 quarries included exposed basalt outcrops and basalt sources at or slightly below grade. Sites
11 evaluated as potential basalt quarries were Vernita Quarry, McGee Ranch, the Fitzner/Eberhardt
12 Arid Lands Ecology Reserve (ALE Reserve) Site, Horn Rapids Site, Gable Mountain Site, Gable
13 Butte Site, West Haven Site, Section 9 Quarry, DeAtley Quarry, and Mahaffey Quarry. (The last
14 three sites are privately owned and operated off the Hanford Site.)
15

16 Factors considered in the evaluation were categorized into two groups:
17 (1) environmental, safety, and security factors; and (2) engineering and economic factors.
18 Qualifying criteria included proximity to the 200 Areas on the Hanford Site (Central Plateau),
19 basalt availability, suitability of basalt, and threatened and endangered species impacts.
20 Engineering criteria included haul distance, safety, expansion potential, and land reclamation.
21 Detailed descriptions of these criteria and evaluations are provided in the *Site Evaluation Report*
22 *for Candidate Basalt Quarry Sites* (BHI 1995).
23

24 Historical, archaeological, and cultural resource impacts were not used as qualifying
25 criteria because to date, only a portion of each candidate Hanford quarry has been surveyed and
26 the database is incomplete. These resources would be fully assessed, evaluated, and
27 mitigated, if necessary, prior to beginning any quarry operations. Mitigation would most likely be
28 undertaken in accordance with a Memorandum of Agreement developed in coordination with the
29 U.S. Department of Energy, Richland Operations Office (RL), the State Historic Preservation
30 Office, and Tribal governments.
31

32 Development of a surface (or near-surface) basalt site would be comparable to a typical
33 open-pit mine. A site occupying approximately 200 ha (500 ac) would need to be developed to a
34 depth of approximately 25 m (80 ft) to satisfy the potential materials need.
35

36 Ecological surveys for threatened or endangered species were conducted at each
37 Hanford Site candidate quarry. No Federal or state threatened or endangered species were
38 observed at these sites, although several Federal and state species of concern were observed.
39 Ecological surveys were not conducted at the three privately operated commercial quarries.
40

41 **D.2.3.1 Vernita Quarry.** Vernita Quarry is located off the east side of State Highway 24 near
42 Vernita Bridge and has been identified as a suitable source to supply riprap required for use in
43 constructing protective surface caps at the Hanford Site. NEPA documentation, including a
44 survey for threatened or endangered species and a cultural resource survey, was prepared to
45 support removing a small quantity of basalt from this quarry, and approximately 10,700 m³
46 (14,000 yd³) of riprap was removed in March 1994. This basalt was used to construct a
47 prototype Reference (Hanford) Cap over the B-57 crib in the 200-BP-1 Operable Unit. Vernita
48 Quarry could be developed by expanding the existing quarry or by developing a new quarry in the
49 vicinity.
50

51 The quarry is located in an extensive basalt outcrop and a considerable volume of basalt
52 exists outside of the area identified for quarry development. Initially, a 45-ha (110-ac) parcel
53 would be developed. This parcel could yield 11.9 million m³ (15.6 million yd³) of loose riprap.
54 Additional basalt could be obtained at this quarry by deeper excavation or by extending the quarry
55 deeper into the basalt bench. Additional overburden per unit area might be encountered on parts

1 of this outcrop, if the quarry were to be expanded beyond the identified boundaries. The potential
2 volume of useable basalt makes expansion of this site feasible, and the Vernita Quarry Site
3 could supply a sufficient quantity of basalt for cap construction.
4

5 Vernita Quarry is located in an exposed bench that could be reclaimed fairly successfully
6 from a physical and topographic perspective. The bench would be translocated into the original
7 outcrop and, when the quarry operations were complete, an exposed bench would remain. The
8 approach to the new bench could be graded to provide a natural transition from the surrounding
9 terrain. Revegetation would be used to further enhance the transition between undisturbed and
10 disturbed areas.
11

12 Two Washington State plant species of concern, the crouching milkvetch and the
13 stalked-pod milkvetch, were observed during a survey at the Vernita Quarry Site. A list of all
14 flora and fauna species observed at this site and other potential sites during the ecological
15 surveys is included as Appendix C in the *Site Evaluation Report for Candidate Basalt Quarry*
16 *Sites* (BHI 1995).
17

18 Vernita Quarry is located in an area designated for Conservation (Mining) in the Preferred
19 Alternative, and Conservation (Mining) in Alternative Three. Development of a quarry at this site
20 would be consistent with these land-use designations. Vernita Quarry is located in an area
21 designated for Preservation under Alternatives One, Two, and Four; and development of the
22 quarry would not be consistent with this land-use designation. Vernita Quarry could be
23 expanded under the No-Action Alternative.
24

25 **D.2.3.2 McGee Ranch.** A near-surface basalt source exists on the interior north portion of the
26 McGee Ranch site, northwest of the McGee well. Another portion of McGee Ranch is a potential
27 quarry site for fine-textured soils required for cap construction and the same infrastructure could
28 support both the fine-soil quarry and the basalt quarry. Basalt characteristics for this site are not
29 well known because surfaces or benches are not exposed. The formation exists as a knoll with
30 approximately 15 to 30 m (50 to 100 ft) of vertical relief. The thickness of the overburden is not
31 known. The most likely scenario for developing a quarry at this site would be to begin mining the
32 east end of the ridge. Quarry development would proceed to the west in blocks that span the
33 width of the formation, while maintaining grade above the 274 m (900 ft) contour level. If
34 additional basalt was required, excavation would proceed below this contour level. This potential
35 quarry site consists of a 47 ha (116 ac) parcel. Excavation of the site to the 274 m (900 ft)
36 contour level would yield 15.3 million m³ (20 million yd³) of loose riprap.
37

38 The basalt knoll at McGee Ranch would be developed similarly to an exposed outcrop.
39 The reclaimed landscape would not blend with the surrounding landscape to the same degree
40 as the Vernita Quarry Site. The knoll has several drainages running lengthwise on either side,
41 which would be eliminated by removal of the basalt formation during quarry operations. A pit
42 would be created if the formation were mined below the grade of the surrounding landscape to
43 provide additional basalt materials. A revegetation program would help the quarry area partially
44 blend with the surrounding landscape and would camouflage the quarry.
45

46 Two Washington State plant species of concern (the crouching milkvetch and scilla
47 onion) and two Washington State wildlife species of concern (the loggerhead shrike and the
48 sage sparrow) were observed at the McGee Ranch site.
49

50 The McGee Ranch site is located in an area designated for Conservation (Mining) in
51 Alternative Three. Development of a quarry at this site would be consistent with this land-use
52 designation. The proposed quarry site is located in an area designated for Preservation under
53 the Preferred Alternative and Alternatives One, Two, and Four. Development of the quarry would
54 not be consistent with this land-use designation. McGee Ranch could be developed under the
55 No-Action Alternative.

1 **D.2.3.3 The Fitzner/Eberhardt Arid Lands Ecology Reserve (ALE Reserve).** The
2 Fitzner/Eberhardt Arid Lands Ecology Reserve (ALE Reserve) consists of near-surface basalt
3 located approximately 300 m (1,000 ft) south of State Highway 240 near Gate 116. This site
4 would be developed similar to an open-pit surface mine, with adequate buffer zones surrounding
5 the excavation to maintain safe side slopes.
6

7 The near-surface portion of the basalt formation covers a fairly limited area compared to
8 the other sites. The quantity of basalt at this site is large and expansion could probably be
9 accommodated through deeper excavation. However, further geologic surveys would need to be
10 conducted to verify the extent of this formation and the depth of overburden and weak flow-top
11 material, and to determine if a sufficient quantity of basalt could be obtained from the ALE
12 Reserve.
13

14 One Washington State plant species of concern (the stalked-pod milkvetch) and two
15 Washington State bird species of concern (the grasshopper sparrow and sage sparrow) were
16 observed at the ALE Reserve.
17

18 The ALE Reserve is located within an ecology reserve that, for the most part, has
19 remained untouched by large development activities and has been set aside for ecological
20 preservation and research. The proximity of a quarry to the ALE Reserve might result in
21 avoidance behavior or other disturbance by sensitive species and animals (e.g., mule deer and
22 elk). A large-scale basalt quarry does not fit historical or current use designations for the ALE
23 Reserve.
24

25 The ALE Reserve is located in an area designated for Conservation (Mining) in the
26 Preferred Alternative and Alternatives Three and Four. Development of a quarry at this site
27 would be consistent with this land-use designation. The ALE Reserve is located in an area
28 designated for Preservation under Alternatives One and Two. Development of the quarry would
29 be consistent with this land-use designation. Development of the quarry would not be consistent
30 with current management practices and would be a nonconforming use under the No-Action
31 Alternative.
32

33 **D.2.3.4 Horn Rapids Site.** A basalt outcrop and potential quarry area exists 900 m (3,000 ft)
34 north of the Horn Rapids Dam. Characteristics of this site are not well known because few
35 basalt benches are exposed. The flow top is relatively flat at the 152-m (500-ft) contour with
36 abundant scattered basalt rocks in places. Some vertical relief exists near the south end and
37 near the center on the west side of the outcrop, and these two locations might provide the most
38 suitable locations to begin quarry operations. Initial quarry development would probably involve
39 an 84-ha (207-ac) parcel.
40

41 The Horn Rapids site could be developed in a manner similar to development of the
42 basalt formation at Vernita. A well-developed and exposed bench is not present at the Horn
43 Rapids site, but vertical relief at the south end would enable development of a 9- to 12-m (30- to
44 40-ft) bench.
45

46 The near-surface source at the Horn Rapids site is fairly extensive and could
47 accommodate future expansion. Further geologic surveys would need to be conducted to verify
48 the extent of this formation and to determine if a sufficient quantity of basalt could be obtained
49 from the Horn Rapids site.
50

51 One Washington State wildlife species of concern (two pairs of long-billed curlew) was
52 observed at the Horn Rapids site.
53

54 The Horn Rapids site is located in an area designated for Research and Development in
55 the Preferred Alternative and Alternative Three. Development of a quarry at this site would not

1 be consistent with this land-use designation. The Horn Rapids site is located in an area
2 designated for Preservation under Alternatives One, Two, and Four. Development of the quarry
3 would not be consistent with this land-use designation. The site would be available for
4 development under the No-Action Alternative.
5

6 **D.2.3.5 Gable Mountain Site.** Gable Mountain is a prominent geologic feature north of
7 Route 11A and north-to-northeast of the 200 East Area. A small quarry already exists at this
8 site, and observation of exposed basalt indicates that a suitable quality of basalt exists
9 throughout the west end of Gable Mountain. The existing quarry on the west end of Gable
10 Mountain has the capacity to supply all basalt needs at the Hanford Site. The quarry would be
11 expanded by advancing eastward into the mountain. A considerable quantity of naturally
12 occurring talus slope material exists at Gable Mountain and could provide many thousands of
13 cubic meters of riprap. Also, several large piles (thousands of cubic meters) of human-made
14 riprap exist in the old quarry site. Development of a quarry at the Gable Mountain site would
15 begin at the far west end of the mountain and proceed east.
16

17 Gable Mountain contains extensive exposed basalt benches that would be well suited for
18 quarry development. An open-pit mine would not be developed unless restrictions were placed
19 on quarry expansion. Land reclamation at the site would be capable of blending the quarry with
20 the surrounding landscape.
21

22 Gable Mountain has considerable cultural resource value as a sacred site for American
23 Indian tribes. Development of a quarry at Gable Mountain would adversely impact a cultural
24 resource valued by American Indians and would represent an irreversible and irretrievable (I&I)
25 commitment of this cultural resource.
26

27 One Washington State plant species of concern (the stalked-pod milkvetch) and two
28 state wildlife species of concern (the loggerhead shrike and the prairie falcon) were observed at
29 the Gable Mountain site.
30

31 Gable Mountain is located in an area designated for Preservation in the Preferred
32 Alternative and Alternatives One, Two, and Four. Development of a quarry at this site would not
33 be consistent with this land-use designation. Gable Mountain is located in an area designated
34 for Conservation (Mining) under Alternative Three, and development of the quarry would be
35 consistent with this land-use designation. A quarry could also be developed under the No-Action
36 Alternative.
37

38 **D.2.3.6 Gable Butte Site.** Gable Butte is a prominent geologic feature north of Route 11A and
39 north of the 200 West Area. The quarry site would consist of outcrops located west of the
40 railroad grade at Gable Butte, immediately west of Gable Butte proper. A considerable quantity
41 of naturally occurring talus slope material is associated with these outcrops and thousands of
42 cubic meters of riprap could possibly be obtained from this material. Development of a quarry at
43 the Gable Butte Site would begin at the south end of the area of interest. Sufficient space is
44 available for stockpiling material and for parking equipment in the southern portion of this area.
45 The outcrops that would be quarried range in elevation from about 152 m (500 ft) to 182 m
46 (600 ft).
47

48 Gable Butte and associated outcrops have the capacity to meet all basalt needs at the
49 Hanford Site. The outcrops immediately west of Gable Butte provide excellent opportunities for
50 quarry expansion. Talus slopes at the base of the outcrops could supply significant quantities of
51 basalt that is already broken into riprap-sized material that may be suitable for cap construction.
52

53 Gable Butte has cultural resource value as a sacred site for American Indian tribes.
54 Development of a quarry at Gable Butte would impact a cultural resource valued by American
55 Indians and would represent an I&I commitment of this cultural resource.

1 Two Washington State plant species of concern (the stalked-pod milkvetch and
2 crouching milkvetch) and one Washington State wildlife species of concern (the loggerhead
3 shrike) were observed at the Gable Butte site.

4
5 Gable Butte is located in an area designated for Preservation in the Preferred Alternative
6 and Alternatives One, Two, and Four. Development of a quarry at this site would not be
7 consistent with this land-use designation. Gable Butte is located in an area designated for
8 Conservation (Mining) under Alternative Three, and development of the quarry would be
9 consistent with this land-use designation. A Gable Butte quarry could also be developed under
10 the No-Action Alternative.

11
12 **D.2.3.7 West Haven Site.** The West Haven site consists of a single large basalt outcrop
13 located immediately east of Route 6 and west of Gable Butte. A considerable quantity of
14 naturally occurring talus slope material exists at this site and could provide many thousands of
15 cubic meters of riprap. The West Haven site and nearby outcrops have the capacity to supply
16 sufficient quantities of basalt material for cap construction. Development of a quarry at the West
17 Haven site would begin at the south end of the area of interest. Sufficient space is available for
18 stockpiling material and for parking equipment in the southern portion of this area.

19
20 West Haven contains extensive exposed basalt benches that would be well suited for
21 quarry development. An open-pit mine would not be developed unless restrictions were placed
22 on quarry expansion. Land reclamation at the site would be capable of blending the quarry with
23 the surrounding landscape.

24
25 Two Washington State plant species of concern (the crouching milkvetch and the
26 stalked-pod milkvetch) were observed at the West Haven site.

27
28 The West Haven Site is located in an area designated for Conservation (Mining) in the
29 Preferred Alternative and Conservation (Mining) in Alternative Three. Development of a quarry at
30 this site would be consistent with these land-use designations. The West Haven site is located
31 in an area designated for Preservation under Alternatives One, Two, and Four; and development
32 of the quarry would not be consistent with this land-use designation. The site could also be
33 developed under the No-Action Alternative.

34
35 **D.2.3.8 Section 9 Quarry.** The Section 9 quarry is a privately owned quarry located north of
36 Wanapum Dam. This quarry has considerable quantities of basalt in-place that could be blasted
37 and crushed to produce the desired riprap. Quarry development would be the responsibility of
38 the quarry operator. The status of threatened or endangered species and cultural resources at
39 this site is not known.

40
41 The Section 9 quarry and surrounding basalt formation could easily supply the volume
42 estimate of 15.3 million m³ (20 million yd³) of riprap used in evaluating sites (BHI 1995). Bank
43 reserve volumes at this quarry site are expected to be sufficient to meet the requirement for
44 basalt materials used in cap construction.

45
46 **D.2.3.9 DeAtley Quarry.** The DeAtley Quarry is a privately owned quarry located on the old
47 Highway 12, about 6.7 km (4.2 mi) east of Benton City, Washington. Development of the quarry
48 would be the responsibility of the quarry operator. The status of threatened or endangered
49 species and cultural resources at this site is not known.

50
51 The DeAtley Quarry and surrounding basalt formation could supply an estimated basalt
52 bank volume of 7.6 million m³ (10 million yd³) from this 24-ha (60-ac) site (BHI 1995). This
53 translates to approximately 11.6 million m³ (15.2 million yd³) of loose riprap. The DeAtley Quarry
54 might not have sufficient reserves to supply the quantity of basalt required for construction of all
55 caps on the Hanford Site.

1 **D.2.3.10 Mahaffey Quarry.** The Mahaffey Quarry is privately owned and located on Clodfelter
2 Road about 5.5 km (3.4 mi) from the intersection of Clodfelter Road and Clearwater Avenue in
3 Kennewick, Washington. Quarry development would be the responsibility of the quarry operator.
4 The status of threatened or endangered species and cultural resources at this site is not known.
5

6 An area of 5.7 ha (14 ac) of the 16-ha (40-ac) quarry site is currently permitted for
7 operations at the Mahaffey Quarry. Total reserve estimates at this site are not known. Much of
8 the basalt is subsurface, with as much as 2.4 m (8 ft) of topsoil in places. The reserve estimate
9 for this site is assumed to be similar to that of the 24-ha (60-ac) DeAtley Quarry. The Mahaffey
10 Quarry may not have sufficient reserves to supply the quantity of basalt required for construction
11 of all caps on the Hanford Site.
12
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14

Appendix E – Supplementary Information for Cumulative Impacts Analysis

This appendix summarizes potential cumulative impacts associated with Hanford Site land-use designations for each alternative identified in Chapter 3. Cumulative impacts result

... from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time . . . (40 CFR 1508.7).

Reasonably foreseeable actions are identified and the relationship between these actions and the proposed land-use designations is discussed. The description of potential cumulative impacts couples impacts of each alternative with impacts from past and existing operations at the Hanford Site and impacts that may be associated with anticipated future actions.

Cumulative impacts to land use associated with present and reasonably foreseeable actions are discussed in Chapter 5, Section 5.5.1. Section 5.5.2 discusses potential cumulative impacts to the resources identified in Section 5.2; and Sections 5.5.3 and 5.5.4 discuss cumulative socioeconomic impacts and cumulative human health risk, respectively.

E.1 Past, Present and Reasonably Foreseeable Future Actions at the Hanford Site

This section describes additional, past, present and reasonably foreseeable actions that might not be fully implemented yet at the Hanford Site where potential impacts have been identified.

E.1.1 Wahluke Slope

The current management of lands within the Wahluke Slope is comparable to Preservation and Conservation. No new actions are presently planned for the Wahluke Slope, and DOE anticipates that the present management would continue under the No-Action Alternative. However, adoption of the alternative selected in the U.S. Department of the Interior (DOI) Record of Decision (ROD) for the *Hanford Reach of the Columbia River Final Environmental Impact Statement for Comprehensive River Study* (DOI 1996) would designate the Wahluke Slope as a wildlife refuge. This DOI designation requires Congressional action and the wildlife refuge would be managed similarly to the Preservation designation used in this Final HCP EIS. There are two proposals currently under consideration in Congress. The primary differences between the proposals include the extent of the geographic scope (i.e., whether the Wahluke Slope is addressed or not), and the designation of the land manager (local versus Federal control).

The DOE Preferred Alternative and Alternative One would designate the Wahluke Slope as Preservation as an overlay National Wildlife Refuge. Alternatives Two, and Four would designate the area for Preservation. Alternative Three would designate a large portion of the area for Agriculture, with the smaller areas designated for Conservation and Preservation. Small areas would also be designated for recreational use (High- and/or Low-Intensity) under all alternatives except Alternative Two. High-Intensity Recreation and Agriculture would not be consistent with the alternative selected in the DOI ROD for the Hanford Reach.

1 To the extent that DOE retains control of the Wahluke Slope, future actions in the
2 Wahluke Slope would be consistent with the land-use designation adopted through the ROD for
3 this Final HCP EIS.

4 5 **E.1.2 Columbia River Corridor**

6
7 Present and reasonably foreseeable actions with the Columbia River include the
8 following actions:

- 9
10 • **Hanford Reach of the Columbia River Final Environmental Impact**
11 **Statement for Comprehensive River Record of Decision (DOI 1996):** This
12 EIS addressed the need to protect the Hanford Reach as the last free-flowing,
13 nontidal stretch of the Columbia River in the United States. The ROD selected
14 the alternative that combined a Wild and Scenic River designation for the Hanford
15 Reach of the Columbia River and its immediate corridor with a National Wildlife
16 Refuge (NWR) designation for the Wahluke Slope (NPS 1994). Recreational
17 access points would be improved but not expanded, and additional facilities and
18 programs for visitor interpretation and education would be provided. Damming
19 and major dredging would be prohibited. Development of new industrial facilities
20 on the Hanford Site within the immediate river corridor would be curtailed. Other
21 DOE activities would be specifically allowed or be subject to review and approval.
22 The following potential impacts and benefits were identified (NPS 1994):
23
24 -- Prohibiting damming and dredging would ensure favorable conditions for
25 salmon to migrate and spawn; preserve biodiversity and sensitive species
26 by preventing disturbance of habitat; maintain the existing high water
27 quality by reducing siltation; minimize water temperature change and the
28 potential contaminant releases associated with dredging; and would
29 prevent inundation and disturbance of cultural resources.
30
31 -- Ongoing cultural resource inventories and surveys would maintain the
32 quality of historic and archaeological sites, identify new sites, and
33 document existing sites.
34
35 -- Restricting development would reduce river siltation and prevent
36 disturbance of cultural and paleontological resources.
37
38 -- Controlling exotic vegetation would prevent this vegetation from crowding
39 out native plants. Controlling nuisance aquatic macrophytes, such as
40 water milfoil, would reduce the impacts of these plants on water quality
41 and aquatic habitats. Revegetating disturbed areas with native plant
42 species would restore the diversity and abundance of native plant and
43 animal communities.
44
45 -- Prohibiting off-road vehicle use would prevent disturbance of riparian and
46 upland habitats and cultural resource sites.
47
48 -- Prohibiting grazing would minimize further damage to upland and riparian
49 habitats, but would impact tribal access for the purpose of grazing
50 animals and private citizens currently holding grazing permits.
51
52 -- Increasing river patrols would reduce the impacts of wildfires, littering, and
53 disturbance of rare plants, wildlife, and cultural resources.
54

1 – Conducting a study to examine sloughing of the White Bluffs and identifying
2 possible protective actions could lead to reduced sloughing, which would
3 benefit this important visual and paleontological resource. Measures to
4 reduce the sloughing of the White Bluffs could adversely impact current
5 irrigation practices on adjacent lands if irrigation is shown to contribute to
6 the sloughing.

7
8 -- The Hanford Reach Study Team intends that the Wild and Scenic River
9 designation would not impose constraints on Hanford Site remediation.
10 New construction would be prohibited within the designated boundaries,
11 with the exception of intakes and outfall structures and required facilities
12 related to remediation of the Hanford Site.

13
14 -- Habitat protection and restoration efforts would benefit recreational use and
15 access, as would increased river patrols and improvements in public
16 education efforts and recreational facilities.

17
18 In mandating the study in 1988, Congress provided interim protection of the
19 Hanford Reach by prohibiting development until November 1996. In 1996, Public
20 Law 104-333 extended this protection indefinitely. Activities such as damming or
21 dredging have been permanently prohibited. Congress must determine the further
22 disposition of the Hanford Reach study area through legislative action (NPS 1994).

- 23
24 • **Decommissioning of eight surplus production reactors:** An EIS was prepared to
25 address the potential environmental impacts, benefits and costs, and institutional and
26 programmatic needs associated with decommissioning the eight surplus production
27 reactors in this area (DOE 1992a). The ROD for this action was published in
28 58 FR 48509. The DOE decided on safe storage followed by deferred one-piece
29 removal as the preferred alternative. The DOE intends to complete this
30 decommissioning action consistent with the schedule for remedial action in the
31 *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement)
32 (Ecology et al. 1989). Therefore, the safe storage period would be for less than the
33 75-year time frame outlined in the Decommissioning of Eight Surplus Production
34 Reactors EIS. This action includes continuing surveillance, monitoring, and
35 maintenance, followed by transport of intact reactor blocks from the present locations
36 in the 100 Areas to the 200 West Area for disposal. Contaminated materials
37 associated with the fuel storage basins also would be disposed of in the 200 West
38 Area, along with contaminated equipment and components associated with the
39 reactors. Uncontaminated portions of the fuel storage basins would be removed to
40 provide access for machinery required to move the reactor blocks. Other
41 uncontaminated structures and equipment would be demolished and placed in landfills
42 in the vicinity of the reactor sites.

43
44 Occupational radiation doses associated with this action were estimated to be
45 approximately 51 person-rem, and short-term public radiation doses were estimated
46 to be near zero (DOE 1992a). Near-term ecological impacts were considered
47 minimal because of the existing disturbance from other radioactive waste
48 management activities and nuclear facility operations. The maximum number of
49 workers required at any time would be less than 100. Portions of the B Reactor may
50 be preserved for display in recognition of the cultural significance of the reactor.

51
52 Approximately 6 ha (15 ac) in the 200 Areas would be disturbed to accommodate
53 disposal of wastes resulting from decommissioning activities. This disturbance would
54 be partially offset by the 5 ha (13 ac) that would be available for revegetation in the

1 100 Areas after removal or dismantlement of the eight reactors. Additional habitat
2 disturbance would be required for construction of haul roads from the 100 Areas to the
3 200 Area that are capable of handling the movers required to transport the reactor
4 blocks.

- 5
6 • **Deactivation of the N Reactor:** An environmental assessment (EA) was prepared
7 to address all nonroutine activities associated with the shutdown of the 105-N Reactor
8 (N Reactor) (DOE 1995e); the finding of no significant impact (FONSI) was issued on
9 May 1, 1995. The EA identifies impacts associated with activities required to prepare
10 the reactor for decommissioning. No additional ground disturbance would be
11 anticipated from deactivation of the reactor. The maximum exposed individual (MEI) in
12 the offsite population would receive a dose less than 0.001 mrem/yr and the collective
13 dose to the population would be 0.025 person-rem. Deactivation would require
14 approximately 200 workers for three years, with only three workers required after
15 deactivation was complete.

16
17 These actions are consistent with and would enable the land-use designations under all
18 alternatives.

19 20 **E.1.3 Central Plateau**

21
22 Present and reasonably foreseeable actions in the 200 Areas include the following:

- 23
24 • **Office of River Protection:** The DOE has issued a ROD for an EIS that analyzed
25 alternatives for remediating the waste currently contained in the 177 single-storage
26 tanks (SSTs) and double-storage tanks (DSTs) in the 200 Areas and in about 60
27 active and inactive miscellaneous underground storage tanks, and providing for safe
28 storage and disposal of strontium and cesium capsules used in research projects at
29 Hanford Site and offsite locations (DOE and Ecology 1996). The EIS evaluated a
30 range of waste retrieval and removal and in-place remediation options for the SSTs
31 and DSTs. The ROD presented the selected alternative of phased implementation
32 and deferred the decision on disposition of cesium and strontium capsules (DOE
33 1997). Under phased implementation, tank wastes would continue to be stored until
34 the waste is retrieved in a demonstration phase (Phase I) to verify that treatment
35 processes will function effectively. After Phase I, the full-scale production phase
36 (Phase II) would be implemented. Potential impacts associated with this project
37 include worker exposures to radiological and hazardous constituents during waste
38 disposition and habitat disturbance.
- 39
40 • Worker exposures to hazardous and/or radioactive constituents were evaluated in the
41 EIS. It is estimated that health effects due to radiation exposure would include
42 approximately three latent cancer fatalities in operational workers over the life of the
43 project.

44
45 Approximately 138 ha (340 ac) of shrub-steppe habitat would be disturbed.

- 46
47 • **In 1997, DOE prepared a supplement analysis to determine if additional NEPA**
48 **review was required for a series of tank farm infrastructure upgrades (DOE-RL**
49 **1997a):** These upgrades focus on capital improvements necessary for continued
50 safe operation of DST facilities and selected SST facilities. Most of the activities
51 would involve replacing or upgrading existing systems. In May 1997, DOE determined
52 that the potential impacts of the project were adequately bounded by the analysis in
53 the Tank Waste Remediation System (TWRS) EIS; therefore, an additional *National*
54 *Environmental Policy Act of 1969* (NEPA) analysis was not required.

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- **Plutonium Finishing Plant stabilization:** The DOE has issued a final EIS addressing stabilization of the radioactive materials present in the Plutonium Finishing Plant (PFP) (DOE-RL 1996a). Potential impacts include worker exposure and radiological air emissions. All activities will take place within the facility. There will be no change in land use.
 - **Environmental Restoration Disposal Facility (ERDF):** The ERDF was constructed adjacent to the 200 Areas and started operation in August 1996. The facility provides for storage and disposal of waste generated during environmental restoration activities at the Hanford Site (EPA 1995b). The ERDF is the disposal facility for most of the waste excavated during remediation of waste management units at the Hanford Site. Waste generated from remediation of past-practice waste sites and CERCLA remedial activities is placed in the ERDF. The facility accepts only waste that originates on the Hanford Site, which includes dangerous waste, radioactive waste, and mixed waste. The ERDF will be expanded, as needed, ultimately covering as much as 4.1 km² (1.6 mi²) south of the 200 Areas. Initial construction involved 65 ha (165 ac) of this area. In August 1997, DOE, the U.S. Environmental Protection Agency (EPA), and Ecology proposed to expand the existing two operating cells of the ERDF by initiating construction of two additional cells (DOE-RL 1997b). This expansion would require an additional 28 ha (70 ac) within the original ERDF footprint. The original cells were constructed using a double-liner with a leachate collection and recovery system. The new cells would be constructed using the same design.

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Under current climate conditions, contaminants placed in the ERDF are expected to reach groundwater within 10,000 years. After 10,000 years, estimated human health risks are a maximum incremental lifetime cancer rate (ILCR) of 5×10^{-6} and a maximum hazard quotient for noncarcinogens of 0.2 (a hazard quotient of 1 or greater indicates a health concern). Ecological impacts will occur at the ERDF site and at quarries for materials to be used in the liner and cover. The shrub-steppe habitat at the ERDF site is considered priority habitat by the State of Washington and a number of Washington State monitored or candidate species may be affected by the ERDF. The estimated disturbed area ranges from 14 to 54 ha (35 to 133 ac) for the silt quarry (McGee Ranch). The total disturbed area at the actual ERDF site (including the trench, stockpiling areas, roads, and supporting facilities) is estimated to be 260 ha (640 ac), or approximately 2.6 km² (1 mi²). Significant cultural resources have not been identified at the ERDF site. Operation of the ERDF provides up to 167 full-time positions at the Hanford Site. The total estimated capital costs for the ERDF range from \$246 million to \$663 million. Visual and noise impacts of ERDF construction and operation are considered negligible.

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- **Programmatic Spent Nuclear Fuel Management:** The DOE developed the *Department of Energy Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Draft Environmental Impact Statement* (DOE 1994a) and issued the ROD (60 FR 28680). This decision establishes DOE policies for the environmentally safe transport, storage, and management of spent nuclear fuels. A large portion of the DOE-owned inventory of SNF is already stored at the Hanford Site, and the Hanford Site has been identified as a participant in the management of spent fuel. The selected alternative – regionalization of SNF storage by fuel type – requires management of defense production spent fuel at the Hanford Site and transport of other spent fuel currently stored at the Hanford Site to the INEEL.

1 An amendment to the ROD (61 FR 9441) was issued to the public on March 8, 1996,
2 to reflect modifications to the original decision resulting from a settlement agreement
3 reached by DOE, the State of Idaho, and the U.S. Department of the Navy. The
4 amended ROD indicates that only 12 of the originally planned 524 shipments of SNF
5 would be shipped from the Hanford Site to Idaho. These 12 shipments will consist of
6 the sodium-bonded FFTF fuel.
7

8 Land disturbance associated with this action at the Hanford Site is estimated at 7 ha
9 (18 ac) of shrub-steppe habitat west of the 200 East Area. Estimates of employment
10 required for construction activities range from 176 to 1,065 employees during the
11 years from 1997 to 2000. Operations would require 208 to 230 employees through
12 2004, with levels gradually declining to 50 to 60 workers beyond the year 2004. Many
13 of these employees would be drawn from the existing Hanford Site workforce.
14 Construction of the new facilities is not expected to have any significant impact on
15 cultural resources. Solid waste generation would be a maximum of 330 m³/yr
16 (11,654 ft³/yr), or approximately 4 percent of the 21,000 m³/yr (740,000 ft³/yr) currently
17 generated at the Hanford Site. The MEI in the general population would receive a dose
18 of 0.007 to 0.02 mrem/yr from waste-processing activities. Resource (e.g., materials,
19 fuels, and public funds) required to implement this action would overlap with the time
20 periods when the same type of resources would be required by remediation activities
21 at the Hanford Site.
22

- 23 • **Hanford Spent Nuclear Fuel Management:** A Hanford Site EIS was prepared to
24 tier from the ROD (60 Fed. Reg. 28680) for the *Department of Energy Programmatic*
25 *Spent Nuclear Fuel Management and Idaho National Engineering Laboratory*
26 *Environmental Restoration and Waste Management Programs Draft Environmental*
27 *Impact Statement* (DOE 1994a). The EIS analyzed the potential environmental
28 impacts of the removal of SNF from the K Basins and subsequent management of the
29 fuel for up to 40 years (DOE 1995d). The ROD for management of K Basin SNF was
30 issued on March 4, 1996 (61 FR 10736).
31

32 The ROD indicates that the Preferred Alternative identified and analyzed in the EIS,
33 with minor modifications, will be implemented. This alternative consists of removing
34 the SNF from the basins, vacuum drying, conditioning, and sealing the SNF in inert
35 gas-filled canisters for dry vault storage in a new facility to be built at Hanford for up to
36 40 years, pending decisions on ultimate disposition. The K Basins will continue to be
37 operated during the period over which the alternative is implemented. The action also
38 includes transfer of the basin sludge to Hanford DSTs for management, disposal of
39 non-SNF debris in a low-level burial ground at the Hanford Site, disposition of basin
40 water, and deactivation of the basins pending decommissioning. A total of 3.5 ha
41 (8.7 ac) of land and native vegetation would be disturbed or destroyed during
42 land-clearing activities to provide new facilities for this project.
43

- 44 • **200 Area Effluent Treatment Facility:** In 1992, DOE prepared an EA and FONSI
45 (DOE 1992b) that addressed environmental upgrades to liquid waste effluent
46 systems, including the 200 Area Effluent Treatment Facility, located near the 200 East
47 Area. This facility provides effluent treatment and disposal capability required to
48 restart the 242-A Evaporator, which reduces tank waste volume by removing process
49 condensate. The Effluent Treatment Facility provides for effluent collection, a
50 treatment system to reduce the concentration of hazardous and radioactive waste
51 constituents in the effluent streams to acceptable levels, tanks to allow verification of
52 effluent characteristics before discharge, and a state-approved land disposal structure
53 (SALDS) for effluents. The SALDS infiltration gallery consists of a 35- by 61-m
54 (116- by 200-ft) rectangular drain field that is located north of the 200 West Area.

1
2 Environmental impacts associated with this project include habitat destruction
3 associated with the construction of the treatment facility, transfer piping, and the
4 SALDS; and the discharge of small quantities of contaminants to the ground through
5 the SALDS. In particular, the discharge of tritiated streams is of concern, but because
6 of the relatively short half-life of tritium (12.3 years), the long residence time of the
7 effluent in the groundwater could be expected to be sufficient to attenuate the tritium
8 before it reaches the Columbia River.
9

- 10 • **Operation of Low-Level Burial Grounds:** The low-level burial grounds located in
11 the 200 West and 200 East Areas are an active, permitted RCRA landfill and cover a
12 total area of 225 ha (556 ac). The landfill is divided into eight burial grounds and each
13 burial ground consists of a number of trenches that contain, or will contain, low-level
14 radioactive and mixed waste. Six burial grounds are located in the 200 West Area and
15 two burial grounds are located in the 200 East Area. Impacts associated with
16 operation of the burial grounds include habitat disturbance or loss and the potential for
17 generation of fugitive dust.
18

19 The DOE recently decided to widen one of the trenches in the 218-W-5 Low-Level
20 Burial Ground to accommodate large, packaged low level waste, and to facilitate
21 segregation of low-level waste.
22

- 23 • **Operation of the U.S. Ecology, Inc. Commercial Low-Level Radioactive Waste
24 Landfill for offsite commercial waste:** U.S. Ecology, Inc., operates a radioactive
25 waste landfill that accepts commercially generated low-level wastes from states
26 included in the Northwest low-level radioactive waste compact. U.S. Ecology, Inc.,
27 accepted 2,191 m³ (77,418 ft³) of naturally occurring wastes and 5,801 m³
28 (204,981 ft³) of low-level radioactive wastes in 1995 (TCH 1996b). The U.S. Ecology,
29 Inc., landfill is located directly east of the ERDF landfill. Habitat disturbance is the
30 primary impact associated with the facility. In February 1997, the Washington State
31 Departments of Health and Ecology determined that an EIS must be prepared under
32 SEPA before the state can make several key environmental decisions regarding this
33 site. These decisions include approval of a site closure plan, renewal of the operating
34 license, and an amendment to the regulations limiting the receipt of naturally occurring
35 and accelerator-generated radioactive materials. Public scoping took place through
36 March 27, 1997, and the draft EIS is currently in preparation.
37

- 38 • **Solid Waste Retrieval Complex, Enhanced Radioactive and Mixed Waste
39 Storage Facility, infrastructure upgrades, and Central Waste Support Complex:**
40 The DOE prepared an EA addressing several waste management projects in the
41 200 Areas (DOE-RL 1995b). A FONSI was issued on September 28, 1995, that
42 addressed the construction of the solid waste retrieval complex, an enhanced
43 radioactive and mixed waste storage facility, infrastructure upgrades, and a Central
44 Waste Support Complex. These projects will be undertaken in the 200 West Area and
45 involve approximately 36 ha (89 ac), or about 5 percent of the 777 ha (1,920 ac) in the
46 200 West Area. Most activities will occur in previously disturbed areas. The waste
47 storage facility, however, will be constructed on relatively undisturbed land, resulting in
48 an incremental loss of shrub-steppe habitat essential for species such as the
49 loggerhead shrike and sage sparrow.
50

51 Discharges of nonradioactive liquid effluents could incrementally increase discharges
52 of nonradioactive effluents in the 200 Areas by 43,000 m³ gal (11 million gal), which
53 would comprise approximately 2 percent of the total discharge. This additional volume
54 is not expected to produce any discernable mounding of the groundwater. Changes in

1 the movement of underground contaminant plumes also are not expected.

2
3 Implementation of the proposed action would not be expected to produce a cumulative
4 socioeconomic impact, and discernable changes in the radiation dose to offsite
5 receptors would not be expected.

- 6
7
- 8 • **Tank 241-C-106 sluicing and waste removal:** This project addresses the need to
9 retrieve the high-heat waste in SST 241-C-106 and transfer the waste to DST
10 241-AY-102. The DOE has identified a need to take this action to eliminate safety
11 concerns with the storage of high-heat waste in Tank 241-C-106, and to demonstrate
12 a tank waste retrieval technology. The removal of the waste would stabilize this tank
13 and eliminate the need to add cooling water. An EA (DOE 1994b) and FONSI were
14 issued in February 1995.

15 Tank 241-C-106, which is located in the 200 East Area, has a 31-cm (10-in) -thick
16 dished bottom, and a useable waste depth of approximately 4.8 m (16 ft) at the
17 sidewall. The waste in Tank 241-C-106 consists of 746,000 L (197,000 gal) of sludge
18 that is stratified into two layers. The top layer consists of 655,000 L (173,000 gal) of
19 sludge, containing a sufficient amount of strontium to be considered high-heat waste,
20 which generates approximately 32 kW of heat. The bottom layer consists of 91,000 L
21 (24,000 gal) of low-heat producing hardened material.

22
23 The high-heat waste will be sluiced from Tank 241-C-106 to a DST through a
24 double-encased (pipe-in-pipe design), bermed line. The system will be a closed loop,
25 continuous sluicing process. The scope of the project is to remove 75 percent, at a
26 minimum, of the high-heat waste. Sluicing of underground storage tanks involves
27 introducing a high-volume, low-pressure stream of liquid to mobilize underground
28 storage tank sludge waste before pumping the tank contents. Impacts associated
29 with this action are potential worker exposure concerns.

- 30
31
- 32 • **Disposal of decommissioned, defueled cruiser, Los Angeles Class, and Ohio
33 Class naval reactor plants:** This final EIS, prepared by the U.S. Navy, evaluates the
34 potential impacts of disposing of approximately 100 defueled reactor plants from
35 decommissioned naval vessels (Navy 1996). The ROD was published in the *Federal
36 Register* on August 9, 1996. The selected alternative is to dismantle the vessels at
37 the Puget Sound Naval Shipyard and transport the reactor plants, by barge, to the low-
38 level burial grounds at the Hanford Site. The DOE was a cooperating agency in the
39 preparation of this EIS.
 - 40 • **Plutonium-Uranium Extraction Plant (PUREX)/Uranium Trioxide Plant
41 shutdown:** In 1993, DOE directed Westinghouse Hanford Company to terminate
42 operations at the PUREX Plant and provided guidance to proceed with shutdown
43 planning and terminal clean-out activities. This direction also covered the Uranium
44 Trioxide Plant at completion of the pending shutdown campaign. An EA addressing
45 transfer of the irradiated fuel from PUREX and the N Reactor irradiated fuel for storage
46 at the 105-KE and 105-KW Fuel Storage Basins was prepared (DOE 1995e) and a
47 FONSI was approved on July 12, 1995. The FONSI identified that unprocessed
48 irradiated fuel would be transported from the PUREX Plant and the 105-N Reactor to
49 the 105-KE and 105-KW fuel storage basins in the 100 K Area; the fuel would be
50 placed in storage at the K Basins and eventually would be dispositioned in the same
51 manner as the other existing irradiated fuel inventory stored in the K Basins. A
52 maximum of three railcar shipments of fuel would be made; two fuel shipments from
53 the PUREX Plant and one from the N Reactor would be shipped to the K basins,
54 unloaded, and stored with the existing fuel. The PUREX fuel removal action has been

1 completed. The 100-N Basin cleanout was completed in 1998.

2
3 These activities are consistent with the Industrial-Exclusive designation for the 200 Areas
4 under all alternatives.

5
6 **E.1.4 All Other Areas**
7

8 Present and reasonably foreseeable actions in other Hanford areas include the following:
9

- 10 • **Construction and operation of a Laser Interferometer Gravitational-Wave**
11 **Observatory (LIGO) on the Hanford Site:** An EA was prepared by the National
12 Science Foundation for construction and operation of a LIGO (NSF 1993), and
13 a FONSI was issued in December 1993. The LIGO site occupies approximately
14 6 km² (2.3 mi²), including a support facility at the vertex of two 4-km (2.5-mi) arms,
15 mid- and end-station buildings along the arms, service roads, parking areas and
16 construction laydown areas. Service roads, running the length of the 4-km (2.5-mi)
17 arms, fragment habitat that exists at the site. The facility will accommodate 10 to 20
18 permanent staff, with an additional 10 visiting scientists. The LIGO is currently
19 operating.
20

21 The LIGO is located in an area designated for Research and Development in the
22 Preferred Alternative and Alternatives Two and Three, and Conservation in
23 Alternatives One and Four. The LIGO represents a use that is consistent with
24 Research and Development and Industrial use designations.
25

- 26 • **Environmental Molecular Sciences Laboratory (EMSL):** A FONSI for the EMSL
27 EA (DOE 1990b) was issued in 1992. The EMSL would consist of an 18,500-m²
28 (200,000-ft²) building originally proposed for siting on a 12-ha (30-ac) site located near
29 the Columbia River, in the southeast portion of the Hanford Site. On the second day
30 of construction, April 12, 1994, construction crews uncovered human remains thought
31 to be those of American Indians. The DOE immediately halted construction and
32 proposed, consistent with the wishes of local American Indian tribes and with the spirit
33 of the *Native American Graves Protection and Repatriation Act of 1990* and the
34 *American Indian Religious Freedom Act of 1978*, to relocate the site of the facility.
35 Another EA was prepared to address re-siting the facility (DOE 1994c) in the south
36 part of the 300 Area; the FONSI was approved in July 1994. Construction of the facility
37 was recently completed at the new site. Approximately 200 to 250 employees are
38 located at the EMSL, including permanent staff and visiting scientists.
39

40 The EMSL is within an area designated for Industrial development under all
41 alternatives. The EMSL represents a use pattern that is consistent with this
42 designation.
43

- 44 • **Inert/Demolition Waste Landfill (Pit 9):** An EA was prepared for the proposal to
45 construct a waste landfill (Pit 9) to accommodate inert and demolition waste for the
46 Hanford Site (DOE 1995g). The DOE identified a need for convenient and economic
47 disposal capacity of these types of waste to support the decommissioning activities
48 planned for the southern areas of the Hanford Site. The current demolition waste
49 landfill, Pit 10, located approximately 25 m (82 ft) west of Route 4S, reached full
50 capacity in 1995. The projected decommissioning activities on the Hanford Site will
51 continue for up to 20 years; therefore, a replacement demolition landfill is required in
52 the near-term. The DOE proposed to use an existing alluvial gravel pit – Pit 9 – as a
53 new inert and demolition waste landfill for the Hanford Site. Pit 9 is located
54 approximately 3 km (1.9 mi) north of the 300 Area, in the 600 Area. Based on current

1 disposal projections, Pit 9 will be available for inert waste for 20 years. The FONSI for
2 this action was approved May 15, 1995, and Pit 9 has been open and operational
3 since approximately July 1995. Impacts associated with this action include minor
4 habitat disturbances.
5

6 Pit 9 is located within an area that is designated for Conservation under the Preferred
7 Alternative and Alternative Three, and this activity is consistent with this designation.
8 However, Alternatives One, Two, and Four designate the location of Pit 9 for
9 Preservation, which is not consistent with the current use of Pit 9 as an
10 inert/demolition waste landfill.
11

- 12 • ***Programmatic Environmental Impact Statement for Accomplishing Expanded
13 Civilian Nuclear Energy Research and Development and Isotope Production
14 Missions in the United States, Including the Role of the Fast Flux Test Facility***
15 (DOE/EIS-0310): The 400 Area, located southeast of the 200 East Area, is the site of
16 the Fast Flux Test Facility (FFTF). The FFTF is a 400 megawatt thermal, liquid metal
17 (sodium-cooled) nuclear research test reactor that was constructed in the late 1970s
18 and operated from 1982 to 1992. Although not designed nor operated as a breeder
19 reactor, the FFTF operated during these years as a national research facility for the
20 Liquid Metal Fast Breeder Reactor Program to test advanced nuclear fuels, materials,
21 components, systems, nuclear operating and maintenance procedures, and active
22 and passive safety technologies. The reactor was also used to produce a large
23 number of different isotopes for medical and industrial users, generate tritium for the
24 United States fusion research program, and conduct cooperative, international
25 research.
26

27 In December 1993, the FFTF was shutdown due largely at that time from
28 determinations that the facility could not continue to operate economically. In
29 April 1995, defueling was completed and usable fuel is stored on site in fuel storage
30 vessels or in the secure vault at the Plutonium Finishing Plant at the Hanford Site.
31 Unusable spent nuclear fuel (SNF) has been thoroughly washed to remove all sodium
32 residuals, dried, and placed in approved, 50-year Interim Storage Casks on the
33 400 Area Interim Storage Area pad. In November 1995, the reactor was placed in
34 standby mode with the main cooling system operating at approximately 200°C (400°F)
35 to keep the sodium coolant liquid and circulating to maintain DOE's option to restart
36 and operate the reactor in the future. Essential systems, staffing, and support
37 services are being maintained in a manner that will support either timely restart or
38 deactivation of the FFTF. In January 1997, the Secretary of Energy officially directed
39 that the FFTF be maintained in a standby condition while an evaluation was conducted
40 of any future role the facility might have in the DOE's national tritium production
41 strategy. In December 1998, the Secretary determined that the FFTF would not play a
42 role in the nation's tritium production strategy.
43

44 In May 1999, the Secretary announced that DOE would ask the Pacific Northwest
45 National Laboratory (PNNL) to complete a 90-day study that would resolve outstanding
46 informational needs for the FFTF. Results of this study were completed and
47 documented in a program scoping plan presented by PNNL to the DOE in early
48 August 1999. As a result of this study, the Secretary decided, on August 18, 1999,
49 that DOE would conduct a programmatic *National Environmental Policy Act* (NEPA)
50 review, including an Environmental Impact Statement (EIS), evaluating the potential
51 environmental impacts associated with proposed expansion of infrastructure,
52 including the possible role of the FFTF, for civilian nuclear energy research and
53 development activities; production of isotopes for medical, research, and industrial
54 uses; and production of plutonium-238 for use in advanced radioisotope power
55 systems for future National Aeronautic and Space Administration (NASA) space

1 missions. The Notice of Intent for this programmatic EIS is planned for publication in
2 the *Federal Register* on September 15, 1999. The Final EIS (FEIS) is planned for
3 completion in the Fall of 2000; a Record of Decision utilizing the NEPA review,
4 including the FEIS, is planned by December 2000.

6 ***E.1.5 Fitzner/Eberhardt Arid Lands Ecology Reserve (ALE Reserve).***

8 No new actions are currently planned for the ALE Reserve. To ensure that the ALE
9 Reserve's natural resources would be protected, the U.S. Fish and Wildlife Service (USFWS)
10 manages the ALE Reserve for DOE. This management is comparable to a land-use designation
11 of Preservation, as defined in this Final HCP EIS.

13 The ALE Reserve is primarily designated for Preservation under all alternatives, except
14 Alternative Three, which designates the ALE Reserve for Conservation (Mining). The Preferred
15 Alternative and Alternative Four also include areas designated for Conservation (Mining). These
16 areas would accommodate the potential for development of a quarry. Land-use designations for
17 the ALE Reserve are consistent with anticipated future actions. The Conservation (Mining)
18 designation under Alternative Three would accommodate a greater range of uses throughout the
19 ALE Reserve. The impacts associated with this designation would be greater than for the
20 Preservation/Conservation (Mining) designation under the Preferred Alternative and Alternative
21 Four, or for the Preservation designation under Alternatives One and Two.

24 ***E.2 Other Potential Hanford Site Actions***

26 A number of other proposed actions at the Hanford Site are likely to be proposed and
27 evaluated in the future. Impacts of these projects cannot be considered in this analysis, because
28 impact analyses are not complete and decisions regarding implementation of a preferred action
29 have not been made. These projects may contribute to cumulative future impacts considered in
30 the HCP EIS. No additional actions that may affect cumulative impacts associated with the
31 Columbia River are proposed. However, actions in other Hanford areas may have indirect effects
32 on the river.

34 ***E.2.1 Central Plateau***

36 Actions that may contribute to cumulative impacts in the Central Plateau (200 Areas)
37 include the following.

- 39 • **Hanford Solid Waste EIS:** The DOE is considering preparation of an EIS to evaluate
40 alternatives for management of radioactive and hazardous wastes generated at the
41 Hanford Site or received at Hanford from offsite generators. The specific waste types
42 to be considered in the analysis include: low-level radioactive waste, mixed low-level
43 radioactive and hazardous waste, transuranic radioactive and mixed waste,
44 hazardous waste, and contaminated equipment and materials for reuse, recycle, or
45 disposal. The EIS would update NEPA analyses addressing ongoing activities,
46 implement associated waste management programmatic RODs, and facilitate site-
47 and program-specific decisions on the future operation of Hanford TSD facilities.

48 These activities are consistent with the Industrial-Exclusive land-use designation
49 proposed for the 200 Areas under all alternatives.
50
51

1 **E.2.2 All Other Areas**
2

3 Other actions that may contribute to cumulative impacts in the All Other Areas geographic
4 area of the Hanford Site include the *Bonneville Power Administration Transmission System*
5 *Vegetation Management Program Draft Environmental Impact Statement* (DOE/EIS-0285). This
6 DEIS establishes Planning Steps for managing vegetation across 24,000 km (15,000mi) of power
7 lines and 350 substations in the northwest and would determine the available vegetation control
8 techniques, herbicides used, and acceptable biological impacts.. The Draft EIS was issued
9 August, 1999 and public comment is open until October 9,1999.

10
11 An EIS DOE prepared on the disposition of the United States inventory of weapons
12 useable surplus plutonium examined reasonable alternatives and potential environmental impacts
13 for the proposed siting, construction, and operation of three types of facilities for plutonium
14 disposition and determined that Hanford's 400 Area was not a preferred site. The first was a
15 facility to disassemble and convert pits (a nuclear weapons component) into plutonium oxide
16 suitable for disposition. The facility would have been located at either the Hanford Site, INEEL,
17 Pantex Plant, or Savannah River Site (SRS). The second was a facility to immobilize surplus
18 plutonium in a glass or ceramic form for disposition in a geologic repository pursuant to the
19 Nuclear Waste Policy Act. The second facility would have been located at either the Hanford Site
20 or the SRS and included a collocated capability to convert nonpit plutonium materials into a form
21 suitable for immobilization. The third type of facility would have fabricated mixed oxide (MOX)
22 nuclear fuel from plutonium oxide. The MOX fuel fabrication facility would have been located at
23 either the Hanford Site, INEEL, Pantex Plant, or SRS. All of these proposed missions and the
24 *Tritium Supply and Recycling Programmatic Environmental Impact Statement* went to the SRS.
25
26

27 **E.3 Past, Present and Reasonably Foreseeable Actions Adjacent to the**
28 **Hanford Site**
29

30 No major actions have been identified outside the Hanford Site boundary that would
31 significantly contribute to environmental impacts of the proposed action. The Siemens Power
32 Corporation currently operates six waste water lagoons to dispose of approximately
33 95,000 kg/day (25,000 gal/day) of effluent containing fluoride, nitrates, and minor amounts of
34 radionuclides. This discharge is not considered during the analysis of cumulative environmental
35 impacts, however, because the facility recently initiated a program to switch to a dry
36 manufacturing system that will eliminate the waste stream. Siemens will complete conversion to
37 the dry manufacturing system by 1998 and will phase out the use of lagoons completely by the
38 year 2004 (TCH 1996b).
39

40 In 1996, DOE prepared an EA to address the transport of up to 5,120 m³ (6,696 yd³) of
41 contact-handled low-level mixed waste from the Hanford Site to the Allied Technology Group
42 (ATG) private gasification and vitrification building in Richland, Washington, for treatment (DOE-
43 RL 1996). Treated waste would be returned to the Hanford Site for disposal. The waste would
44 be staged to the ATG facility over a 10-year period. The building is on a 18.2 ha (45 ac) ATG site
45 adjacent to ATG's licensed low-level waste processing facility approximately 0.3 km (0.2 mi)
46 south of the 300 Area. The action by ATG is being undertaken as a private action in anticipation
47 of future work for a variety of contracts, including DOE. The ATG facility is located adjacent to the
48 Hanford Site boundary in an industrial area in the City of Richland. Effects of construction and
49 overall operation have been evaluated in an EIS under the SEPA which was issued on February
50 23, 1998.
51

52 City and county planning officials were consulted to assess other potential actions outside
53 the Hanford Site boundary. The actions identified are primarily road, bridge, and sewer system
54 improvements that are likely to have only minor impacts themselves and are limited compared to

1 the large scale of actions associated with the proposed future land-use objectives. Ongoing
2 economic and residential development in the region could contribute to cumulative
3 socioeconomic impacts. However, as discussed in Chapter 5, there is considerable uncertainty
4 associated with any analysis of such impacts, given available information on the scheduling of
5 potential actions at the Hanford Site.
6

7 Land-use planning efforts for areas outside of and surrounding the Hanford Site are
8 currently being undertaken by Benton, Franklin, and Grant counties; and by the City of Richland.
9 These planning efforts will establish land uses that will be permitted by local governments in
10 areas surrounding the Hanford Site. The City of Richland prepared a EIS under SEPA, finalized
11 on August 27, 1997, that identified an urban growth area involving Hanford Site land in the vicinity
12 of the 300 Area. A similar area, of varying size, is identified for Industrial use under all
13 alternatives. The City of Richland's Comprehensive Plan is consistent with current and proposed
14 future land uses at Hanford and DOE missions.
15
16

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1
2 **Appendix F — Revised Draft HRA-EIS Comment**
3 **Response Summary**
4
5

6 **F1.0 Introduction**

7
8 On April 23, 1999, the U.S. Department of Energy (DOE) issued the *Revised Draft*
9 *Hanford Remedial Action Environmental Impact Statement and Comprehensive Land-Use Plan*
10 (DOE/EIS-0222D) for review by Washington and Oregon state governments, Indian Tribes, other
11 Federal agencies, county and municipal governments, special-interest groups, environmental
12 groups, and the general public. The formal comment period ran for 45 days, from April 23, 1999
13 to June 7, 1999.

14
15 As part of the public comment process, DOE held four public hearings to receive
16 comments. These hearings were held in Portland, Oregon on May 18, 1999; Richland,
17 Washington on May 20, 1999; Mattawa, Washington on June 2, 1999; and Spokane, Washington
18 on June 3, 1999.

19
20 The DOE solicited public comment on a proposed name change for the document as well
21 as on the document itself. The DOE proposed changing the name of the EIS from the *Hanford*
22 *Remedial Action Environmental Impact Statement and Comprehensive Land-Use Plan* (HRA-
23 EIS) to a title that better reflects land use. The public endorsed this change and, in the Final EIS,
24 the name of the HRA-EIS has been changed to the *Hanford Comprehensive Land-Use Plan*
25 *Environmental Impact Statement* (HCP EIS).

26
27 The DOE received more than 400 comment documents on the Revised Draft HRA-EIS.
28 Comment documents included letters, postcards, questionnaires, and surveys as well as
29 electronic mail. Comment documents were received from tribes and Federal agencies,
30 Washington and Oregon state agencies, county and municipal governments, environmental
31 groups, and private citizens. In addition, more than 200 pages of transcripts were generated
32 during the public hearings.

33
34 Comments received on the Revised Draft HRA-EIS as well as the transcripts from the
35 public hearings are contained in a Final HCP EIS Comment Response Document which, in
36 addition to being sent to the EIS mailing list, is available for review in the DOE public reading
37 rooms. The Comment Response Document consists of three parts: 1) a summary of the major
38 topics raised by public comments received and DOE's generalized responses (also included as
39 Appendix F), 2) specific public comments and DOE's specific responses, and 3) a copy of each
40 public comment received by DOE on the Revised Draft HRA-EIS, and copies of the complete
41 transcripts from each of the four public hearings. Indices are provided in the Comment
42 Response Document to enable commenters to find their comments and DOE's responses.

43
44 The Final EIS is being transmitted to commenting agencies, made available to the public,
45 and filed with the Environmental Protection Agency (EPA). A DOE decision on proposed actions
46 would not be made earlier than 30 days after EPA publishes a Notice of Availability for the Final
47 EIS in the *Federal Register*. The DOE would record its decision as a publicly available Record of
48 Decision (ROD) published in the *Federal Register*.

49
50 **F1.1 Methodology**

51
52 The DOE considered all comments. Equal weight was given to spoken and written
53 comments, to comments received at the public hearings, and to comments received in other

1 ways. The comment period was not intended to solicit “votes” or “endorsements” regarding the
2 proposed action or any alternative analyzed. Rather, comments were reviewed for content and
3 relevance to the environmental analysis contained in the EIS.
4

5 Spoken comments presented at the public hearings were recorded by a court reporter
6 and a verbatim transcript produced (see transcripts at the end of this document). The written
7 comments and transcripts were reviewed and the major topics were identified. These major
8 topics are summarized below in Section F2.0 and repeated in the comment response document.
9 The summarized topics are followed by DOE’s generalized responses. The letter numbers are
10 indexed to the authors in the comment response document, but not in this Appendix.
11
12

13 ***F2.0 Major Topics (Summarized) and DOE’s Responses***

14
15 The DOE considered all comments received on the Revised Draft HRA-EIS. Many of the
16 comments supported particular alternatives or a combination of alternatives, while others
17 addressed environmental issues, such as the value of wildlife habitat and the importance of
18 preserving habitat for plants and animals (including the diminishing population of salmon).
19 A significant number of comments addressed designating the Hanford Reach as a Wild and
20 Scenic River.
21

22 ***F2.1 Major Topics***

23
24 The major topics associated with the comments received on the Revised Draft HRA-EIS
25 are presented collectively in this section. Each major topic raised through the comment process
26 (including the number of comments supporting or opposed to a particular subject) is summarized
27 below, followed by DOE’s generalized response to the summarized comments and the numbers
28 (codes) of those who commented.
29

30 ***F2.1.1 No-Action Alternative***

31
32 Four letters commented on the No-Action Alternative. Two of the three opposed the lack
33 of planning in this alternative. One comment supported this alternative. One commenter
34 supported the No-Action Alternative if Alternative Three was not selected. (Total No-Action
35 Alternative = 4). RL075, RL291, RL322, RTM015
36

37 ***DOE’s Response:*** The No-Action Alternative does not provide for overall planning at the Hanford
38 Site. The DOE is required, under 42 USC 7274k (Public Law 104-201, Section 3153, *National*
39 *Defense Authorization Act for Fiscal Year 1997*), to develop a future-use plan for the Hanford Site.
40 The DOE policy is to support critical DOE missions, stimulate the economy, and protect the
41 environment. This land-use plan provides a means for coordinating planning and plan
42 implementation with Tribal governments and local jurisdictions, as well as facilitating site and
43 infrastructure transition and privatization activities.
44

45 ***F2.1.2 DOE’s Preferred Alternative***

46
47 Numerous people offered comment on the DOE’s Preferred Alternative in the Revised
48 Draft HRA-EIS, with 27 letters in favor of the alternative, and 6 opposed. Many of the supporting
49 letters favored some modification of the alternative to further protect the environment, while those
50 opposing this alternative did so because of lack of economic development (specifically in Grant
51 County), and putting the Wahluke Slope under Federal control. Two of these specifically
52 expressed support of the B Reactor museum. Several expressed that this was the most
53 balanced of the alternatives, providing both development and protection. (Total DOE’s Preferred
54 Alternative = 33). RE028, RL024, RL025, RL032, RL039, RL098, RL106, RL120, RL121, RL181,

1 RL205, RL228, RL244, RL291, RL306, RL319, RL322, RL361, RL381, RL440, RL445, RLM002,
2 RLR002, RLR004, RTM008, RTM010, RTM011, RTP011, RTR001, RTR014, RTR021, RTS003,
3 RTS010
4

5 **DOE's Response:** The DOE has modified its Preferred Alternative in the Final HCP EIS in
6 response to these comments. The DOE believes that its new modified Preferred Alternative
7 gives the same balanced approach to future land development and protection of the environment
8 as did the DOE's Preferred Alternative in the Revised Draft HRA-EIS, while supporting the DOE
9 missions of Environmental Management (otherwise known as the "cleanup mission") and
10 science and technology at the Hanford Site. The B Reactor museum is retained in DOE's
11 Preferred Alternative in the Final HCP EIS. This alternative supports economic development on a
12 regional level, and protects the environment by placing a large portion of the Hanford Site under
13 management of the U.S. Fish and Wildlife Service (USFWS) as an overlay wildlife refuge.
14

15 **F2.1.3 Alternative One**

16
17 Alternative One was the subject of 15 letters, with 14 in favor of this alternative and
18 1 opposed. Those in favor were particularly interested in the emphasis on preservation and the
19 additional protection that it provides for high value or sensitive ecological areas on the Hanford
20 Site, and the prohibition against agriculture, mining, grazing, and intensive recreational use that
21 would compromise the ecological and wildlife values presented. They felt the DOE's Preferred
22 Alternative as presented in the Revised Draft HRA-EIS did not go far enough in furthering this
23 goal. A desire to further protect the unique shrub-steppe habitat was also expressed. The
24 opposing letter expressed the need for some economic development, in addition to some
25 environmental protection. (Total Alternative One = 15). RL003, RL222, RL282, RL283, RL291,
26 RL322, RL340, RL352, RL439, RL445, RTP001, RTP011, RTR014, RTR015, RTR018
27

28 **DOE's Response:** While Alternative One does meet the goal of environmental protection, it
29 does not fulfill all of DOE's missions. These include planning for continuation of the primary
30 missions of the site and planning for future economic development. In response to public
31 comment, DOE has eliminated grazing and increased the area of preservation in its Preferred
32 Alternative in the Final HCP-EIS, while allowing industrial development on land used for, or
33 adjacent to, land already used for industrial-type functions. This supports the DOE mission of
34 Science and Technology. Mining areas are needed for the primary mission of the site, which is
35 Environmental Management (otherwise known as the "cleanup mission"). To the extent that a
36 significant portion of the Hanford Site can be shared with these two primary missions, these
37 areas would be placed under management of the USFWS, to be managed as an overlay wildlife
38 refuge.
39

40 **F2.1.4 Alternative Two**

41
42 Alternative Two was supported by 47 commenters, with 2 opposing the alternative. The
43 primary issue expressed in the supporting comments was the additional protection given to the
44 environment, particularly that afforded to the high value ecological areas and natural and sensitive
45 lands on the Hanford Site. Some commenters expressed the desire for even more protection of
46 the environment, citing this alternative as the one closest to total preservation and restoration of
47 the site. One commenter was supporting this alternative also because of the alternative's
48 support for the B Reactor museum. The two opposing commenters cited the lack of any areas
49 for economic development. (Total Alternative Two = 49). RE013, RL119, RL154, RL159, RL185,
50 RL226, RL230, RL264, RL270, RL283, RL286, RL287, RL288, RL291, RL295, RL296, RL309,
51 RL310, RL311, RL312, RL322, RL331, RL338, RL339, RL344, RL346, RL347, RL356, RL358,
52 RL445, RLS002, RLS003, RLS004, RTP007, RTP008, RTP013, OR014, RTR019, RTS013,
53 RTS016, RTS018, RTS002, RTS003, RTS004, S008, RTS009, RTS020, RTS022, RTS025
54

55 **DOE's Response:** While Alternative Two does meet the goal of environmental protection, it

1 does not meet DOE's desires. These include planning for continuation of the primary missions of
2 the site, and planning for future economic development. In response to public comment, DOE
3 has eliminated grazing and increased the area of preservation in its Preferred Alternative in the
4 Final HCP-EIS, while allowing industrial development on land used for, or adjacent to, land
5 already used for industrial-type functions. This supports the DOE mission of science and
6 technology. Mining areas are needed for the primary mission of the site, which is Environmental
7 Management (otherwise known as the "cleanup mission"). To the extent that a significant portion
8 of the Hanford Site can be shared with these two primary missions, these areas would be placed
9 under management of the USFWS, to be managed as an overlay wildlife refuge.

10 11 **F2.1.5 Alternative Three**

12
13 Alternative Three was discussed by 69 commenters, with 12 in opposition to the
14 alternative and 57 in favor. Commenters who supported this alternative cited the need for
15 economic development of the land in Grant County (by turning the land over to farming). These
16 commenters felt that to be fair, the land should be given back to the farmers from whom it was
17 taken to create the Hanford Site in the 1940s. A comment was also made that the property tax
18 that would have been collected by the county would have gone into schools for children. These
19 commenters believed that Alternative Three supports environmental protection goals, and is
20 balanced between environmental protection and economic development. They supported
21 Alternative Three as the alternative which best represented the Wahluke 2000 Plan. Those
22 opposed to Alternative Three expressed the need for protection of the shrub-steppe habitat, and
23 the concern that irrigation would undermine the White Bluffs. (Total Alternative Three = 69).
24 RE028, RL100, RL120, RL131, RL200, RL220, RL222, RL258, RL285, RL291, RL297, RL298,
25 RL301, RL305, RL307, RL314, RL322, RL329, RL330, RL332, RL333, RL335, RL336, RL337,
26 RL340, RL341, RL345, RL348, RL349, RL350, RL351, RL354, RL358, RL372, RL373, RL374,
27 RL375, RL381, RL384, RL436, RL437, RL441, RL442, RL447, RLM003, RTM001, RTM002,
28 RTM003, RTM004, RTM005, RTM006, RTM007, RTM009, RTM011, RTM012, RTM014, RTM015,
29 RTM016, RTM017, RTM019, RTM020, RTM021, RTP007, RTP008, RTP011, RTP013, RTR014,
30 RTS001, RTS005

31
32 **DOE's Response:** While Alternative Three does have some aspects of balance, there is no
33 area set aside that is large enough to support DOE's Science and Technology Mission which
34 includes site stewardship. Alternative Three does support DOE's mission to provide economic
35 growth, and provides for the current and future missions of DOE on the Hanford Site. In the
36 DOE's Preferred Alternative in the Final HCP-EIS, there is a balance of development and
37 environmental protection. In a regional context, the area is served by both land area for economic
38 development and future missions, and by protecting a large area of shrub-steppe habitat that
39 supports many wildlife species, and provides an outdoor lifestyle.

40 41 **F2.1.6 Alternative Four**

42
43 Seven comments were received regarding Alternative Four. Five were in favor, and two
44 were against this alternative. The commenters opposing Alternative Four expressed concern that
45 there was no economic development allowed, while those in support cited either the necessity of
46 using the McGee Ranch silt in the cleanup effort as a modification, or support for the large
47 amount of preservation in this alternative. (Total Alternative Four = 7). RL270, RL291, RL322,
48 RL438, RTP011, RTS003, RTS012

49
50 **DOE's Response:** While Alternative Four does meet the goal of environmental protection, it
51 does not meet DOE's desires. These include planning for continuation of the primary missions of
52 the site and planning for future economic development. In response to public comment, DOE
53 has eliminated grazing and increased the area of preservation in its Preferred Alternative in the
54 Final HCP-EIS, while allowing industrial development on land used for, or adjacent to, land
55 already used for industrial-type functions. This supports the DOE mission of science and

1 technology. Mining areas are needed for the primary mission of the site, which is Environmental
2 Management (otherwise known as the “cleanup mission”). To the extent that a significant portion
3 of the Hanford Site can be shared with these two primary missions, these areas would be placed
4 under management of the USFWS, to be managed as an overlay wildlife refuge.
5

6 ***F2.1.7 National Wildlife Refuge/DOE’s Preferred Alternative***

7
8 More than 300 commenters wrote concerning the DOE’s Preferred Alternative, with the
9 modification that a National Wildlife Refuge be created/expanded for additional protection of the
10 environment. Six commenters were against this combination, citing as their reasons the
11 USFWS’s lack of adequate resources to properly manage the land, and the DOE’s ignoring the
12 previous use in farming and future economic development. (Total Refuge/Preferred Alternative =
13 306). RE001, RE002, RE003, RE004, RE006, RE007, RE009, RE010, RE014, RE015, RE017,
14 RE019, RE021, RE026, RE029, RL002, RL005, RL006, RL007, RL008, RL009, RL010, RL011,
15 RL012, RL013, RL014, RL015, RL016, RL017, RL018, RL019, RL020, RL021, RL022, RL023,
16 RL026, RL027, RL028, RL029, RL030, RL033, RL034, RL035, RL036, RL037, RL040, RL041,
17 RL042, RL043, RL044, RL045, RL046, RL048, RL049, RL051, RL052, RL053, RL055, RL057,
18 RL058, RL059, RL060, RL062, RL064, RL065, RL066, RL067, RL068, RL069, RL071, RL072,
19 RL074, RL076, RL077, RL078, RL079, RL080, RL081, RL082, RL083, RL084, RL085, RL086,
20 RL087, RL089, RL090, RL091, RL092, RL093, RL094, RL095, RL096, RL099, RL100, RL101,
21 RL102, RL103, RL104, RL105, RL107, RL109, RL110, RL111, RL112, RL114, RL115, RL122,
22 RL123, RL124, RL125, RL127, RL128, RL129, RL130, RL132, RL133, RL134, RL135, RL136,
23 RL137, RL138, RL139, RL140, RL141, RL142, RL145, RL148, RL149, RL150, RL151, RL152,
24 RL153, RL156, RL157, RL158, RL160, RL161, RL162, RL163, RL164, RL165, RL167, RL168,
25 RL170, RL172, RL173, RL174, RL175, RL177, RL179, RL180, RL183, RL184, RL186, RL187,
26 RL188, RL189, RL190, RL191, RL192, RL193, RL194, RL195, RL196, RL197, RL198, RL203,
27 RL204, RL207, RL208, RL209, RL211, RL213, RL214, RL215, RL216, RL217, RL218, RL219,
28 RL220, RL223, RL224, RL225, RL227, RL228, RL229, RL231, RL236, RL238, RL240, RL241,
29 RL242, RL243, RL245, RL246, RL247, RL248, RL249, RL252, RL253, RL254, RL255, RL256,
30 RL257, RL261, RL262, RL266, RL267, RL268, RL269, RL271, RL272, RL273, RL274, RL275,
31 RL276, RL277, RL278, RL279, RL280, RL281, RL288, RL289, RL291, RL294, RL300, RL302,
32 RL314, RL315, RL316, RL320, RL321, RL323, RL326, RL327, RL340, RL342, RL352, RL353,
33 RL355, RL359, RL360, RL362, RL363, RL364, RL365, RL366, RL367, RL368, RL369, RL370,
34 RL376, RL377, RL378, RL379, RL380, RL382, RL383, RL443, RL444, RL445, RL448, RL450,
35 RL451, RLR001, RLR003, RLR005, RLR006, RLS005, RTM001, RTM004, RTM005, RTM007,
36 RTM010, RTP004, RTP006, RTP011, RTP012, RTR002, RTR005, RTR006, RTR007, RTR008,
37 RTR009, RTR010, RTR011, RTR012, RTR013, RTR014, RTR016, RTR019, RTR024, RTR026,
38 RTS001, RTS002, RTS003, RTS006, RTS007, RTS009, RTS014, RTS015, RTS016, RTS018,
39 RTS019, RTS020, RTS024
40

41 ***DOE’s Response:*** The DOE has proposed a Preferred Alternative in the Final HCP-EIS which
42 embraces this combination of economic development, future missions, and environmental
43 protection. The USFWS would be given the responsibility to manage the Wahluke Slope, the
44 Hanford Reach (including the islands outside of Benton County), McGee Ranch, the riverlands,
45 and the Arid Lands Ecology (ALE) Reserve as an overlay wildlife refuge, while DOE retains
46 ownership of the land.
47

48 ***F2.1.8 Other Combinations***

49
50 More than 100 comments expressed concern or support for parts of alternatives or
51 additional alternatives. A few commenters submitted alternative maps they had made
52 themselves for DOE’s consideration. Some commenters addressed specifically the issue of
53 local versus Federal control. A few supported an extension to the public comment period. Two
54 commenters suggested that additional mapping be done to better represent the wildlife population
55 picture. Others suggested that cleanup, not planning, be the focus of the mission at the Hanford

1 Site. These “other combinations” comments are summarized below. (Total Other Combo =
2 118). RE004, RE005, RE008, RE012, RE015, RE016, RE020, RE022, RE023, RE024, RE025,
3 RE027, RE030, RL001, RL031, RL038, RL047, RL054, RL056, RL070, RL073, RL097, RL108,
4 RL117, RL118, RL143, RL144, RL152, RL166, RL169, RL176, RL181, RL182, RL197, RL199,
5 RL200, RL201, RL202, RL205, RL206, RL210, RL226, RL230, RL232, RL234, RL235, RL237,
6 RL239, RL240, RL241, RL248, RL249, RL251, RL259, RL260, RL263, RL270, RL282, RL283,
7 RL284, RL285, RL289, RL290, RL297, RL298, RL299, RL301, RL303, RL304, RL305, RL306,
8 RL308, RL309, RL311, RL313, RL314, RL317, RL318, RL319, RL321, RL322, RL325, RL328,
9 RL329, RL330, RL332, RL333, RL334, RL335, RL336, RL337, RL341, RL344, RL345, RL347,
10 RL349, RL350, RL351, RL356, RL357, RL358, RL361, RL371, RL373, RL381, RL384, RLM001,
11 RLM002, RLP001, RLS001, RLS004, RTM003, RTM018, RTM021, RTP004, RTP006, RTP014,
12 RTR009

13
14 **Local Control vs. Federal Control.** Many commenters were concerned about the issue of local
15 control versus Federal control of the land that currently comprises the Hanford Site. Overall, 65
16 commenters cited this issue, with 37 preferring Federal control and 28 preferring local control.
17

18 **DOE’s Response:** The Federal government would likely retain control of the entire Hanford Site
19 for the next 50 years, during which time it would be managed by a Federal agency. The DOE has
20 proposed that the USFWS manage a large portion of the Hanford Site as an overlay wildlife
21 refuge, while the current ownership remains under Federal control. Therefore, the decision being
22 made at this time is not whether the Federal government is relinquishing ownership of the land,
23 but instead, the decision of how to manage the land until such time that the land is considered
24 surplus.
25

26 **Extension to the Public Comment Period.** Three commenters requested a longer comment
27 period.
28

29 **DOE’s Response:** The DOE carefully considered the appropriate comment period length and
30 came to the decision that the NEPA-required 45 days was adequate. This decision was based
31 on several factors. These include the extended public comment period for the original Draft EIS
32 in 1996, and the fact that this is a revised draft of a descoped document. From the time the first
33 draft was issued in August 1996, to April 1999, extensive work was done with the participation of
34 the nine cooperating agencies to prepare a Revised Draft EIS that demonstrated many
35 perspectives of the land-use decision at the Hanford Site. The alternatives developed
36 encompassed the values and goals of many diverse groups within the region.
37

38 **Prioritizing Cleanup.** Six commenters urged DOE to keep cleanup efforts as its top priority, and
39 not allow land-use planning questions to delay any of the cleanup work.
40

41 **DOE’s Response:** The DOE recognizes the cleanup work at Hanford as its primary mission
42 and it is that cleanup mission that is the reason to implement a land-use plan which does not
43 address individual cleanup sites, but looks at the entire Hanford Site instead.
44

45 **Customized Alternatives.** Approximately 100 letters cited support for parts of alternatives, or
46 the comment writer’s own alternative. By an overwhelming majority, the support for more
47 preservation was expressed, ranging from more protection of the entire Hanford Site, to support
48 for additional wildlife refuge land. The commenters supporting local control cited the need for
49 agriculture on the Wahluke Slope.
50

51 **DOE’s Response:** The DOE has modified its Preferred Alternative in the Final HCP-EIS in
52 response to these comments. The new Preferred Alternative embraces additional wildlife refuge
53 acreage, yet retains economic development, planning for potential future site missions, and
54 recreational opportunities on the Hanford Site.
55

1 **Wildlife Mapping.** Two commenters suggested that additional wildlife mapping be done to
2 several of the maps in the Revised Draft HRA-EIS, to more accurately reflect the Hanford Site's
3 current wildlife populations.

4
5 **DOE's Response:** The maps (figures) included in the Final HCP-EIS have been labeled with the
6 caveat that any wildlife population map cannot be completely accurate, since nesting and
7 burrowing sites vary from season to season and year to year.

8
9 **Wahluke 2000 Plan.** Ten commenters supported the Wahluke 2000 Plan as an alternative that
10 was not considered by the Revised Draft HRA-EIS. These commenters expressed concern that
11 even the land use described in Alternative Three was not as balanced as the Wahluke 2000 Plan.
12 The commenters also cited that the Wahluke 2000 Plan had already gone through a public
13 process.

14
15 **DOE's Response:** The DOE worked with the Grant and Franklin County Planning Departments
16 as cooperating agencies on preparation of the Revised Draft HRA-EIS and, subsequently, on
17 preparation of this Final HCP EIS. The basis for the Wahluke Slope planning was the Wahluke
18 2000 Plan, as it was sent to Mr. Ron Izatt, then Director of the Environmental Restoration Division
19 for the Department of Energy Richland Operations Office, on November 18, 1992, from Mr. Mark
20 Hedman, representing the Wahluke 2000 Committee. The only difference between the map
21 submitted then, and the map presented in Alternative Three of the Revised Draft HRA-EIS is the
22 inclusion of wetlands protection as required by state and Federal regulations.

23 24 **F2.1.9 Preservation**

25
26 Several commenters expressed their support for preservation of the Hanford Site. Fifty-
27 eight letters supported preservation in some aspect, although the amount of preservation cited
28 varied from the addition of the 200 West Area sagebrush, to preservation of the entire Hanford
29 Site. Many cited the Hanford Reach, the creation of a National Wildlife Refuge, McGee Ranch,
30 May Junction, the islands, the LIGO land (when LIGO is complete), Gable Mountain, Gable Butte,
31 and the sand dunes. Reasons cited were historical, ecological, cultural, biological, and
32 economic. Some commenters thought there was enough preservation already. (Total
33 Preservation = 58). RE018, RE020, RL004, RL016, RL029, RL040, RL050, RL061, RL063,
34 RL074, RL088, RL102, RL113, RL116, RL119, RL123, RL126, RL146, RL171, RL178, RL204,
35 RL206, RL212, RL243, RL250, RL265, RL282, RL283, RL288, RL289, RL291, RL299, RL302,
36 RL322, RL326, RL355, RL358, RL360, RL367, RL439, RL440, RL443, RL445, RLR001,
37 RLR003, RLR004, RTP005, RTP012, RTR015, RTR017, RTR018, RTR021, RTR022, RTR023,
38 RTR025, RTS008, RTS010, RTS019

39
40 **DOE's Response:** It is because of the need to protect the environment (e.g., meeting DOE's
41 policy as a Natural Resource Trustee), that acreage for preservation was considered a high
42 priority. Many of the plants and animals on the Hanford Site need large expanses of land to
43 survive. The DOE's Preferred Alternative in the Final HCP-EIS protects and preserves the
44 environment by placing a large portion of the Hanford Site under management of the USFWS as
45 an overlay wildlife refuge.

46 47 **F2.1.10 Conservation (Mining)**

48
49 Of the 149 commenters expressing a view on Conservation (Mining), only 11 felt that no
50 mining at all should be allowed on the Hanford Site. The overwhelming majority felt that some
51 mining could be allowed but only for the necessary materials for the cleanup of the Hanford Site.
52 Some suggested that mining areas should be reclaimed and transferred into the Refuge after the
53 cleanup mission. One commenter wanted the definition of mining in the Final HCP EIS to state
54 that no removal of ore bodies or extraction of precious minerals would be included in the mining
55 activity. Ten letters described specific areas that should not be mined (primarily the ALE

1 Reserve), while one commenter cited the need for McGee Ranch silt specifically for the cleanup
2 program. (Total Conservation [Mining] = 149). RE006, RE007, RE009, RE010, RE014, RE017,
3 RE019, RE020, RE021, RE026, RL002, RL009, RL014, RL027, RL042, RL051, RL068, RL076,
4 RL077, RL085, RL086, RL092, RL095, RL099, RL100, RL103, RL107, RL112, RL114, RL115,
5 RL120, RL121, RL124, RL125, RL136, RL139, RL141, RL148, RL149, RL154, RL155, RL162,
6 RL167, RL170, RL172, RL173, RL174, RL179, RL180, RL184, RL185, RL186, RL187, RL188,
7 RL189, RL190, RL191, RL192, RL196, RL197, RL203, RL206, RL207, RL213, RL217, RL220,
8 RL222, RL224, RL225, RL226, RL229, RL230, RL236, RL238, RL239, RL242, RL243, RL249,
9 RL252, RL253, RL254, RL255, RL256, RL261, RL262, RL266, RL271, RL273, RL274, RL275,
10 RL277, RL279, RL280, RL281, RL282, RL283, RL289, RL294, RL309, RL314, RL320, RL326,
11 RL327, RL338, RL339, RL340, RL342, RL343, RL344, RL346, RL355, RL360, RL362, RL366,
12 RL368, RL371, RL376, RL379, RL438, RL443, RL446, RL448, RL450, RL451, RLR003,
13 RLR004, RLR005, RLR006, RTP005, RTP006, RTP007, RTP008, RTP011, RTP012, RTR002,
14 RTR005, RTR006, RTR008, RTR012, RTR016, RTR019, RTR022, RTS002, RTS010, RTS013,
15 RTS016, RTS017, RTS018, RTS019

16
17 **DOE's Response:** The total Conservation acreage (Conservation [Mining and Grazing] and
18 Conservation [Mining]) in the DOE's Preferred Alternative in approximately the same in the Final
19 HCP-EIS as it was in the Revised Draft HRA-EIS. However, in response to public comment, the
20 definition of mining has been modified to clarify what type of mining might be allowed. The new
21 definition specifies that mining on the Hanford Site must first undergo a permit application
22 process to determine need, and that only governmental mining would be allowed. The DOE
23 needs mineral resources to adequately perform the cleanup mission, and the State of
24 Washington needs mining capability to maintain the state highway that runs through the Hanford
25 Site. DOE has just converted its first gravel pit near the river into a wetland as a reclamation
26 project and intends to complete some type of reclamation when finished at the major mining
27 areas. No commercial mining would be allowed on the Hanford Site. Big Bend Alberta Mining
28 Company, which currently holds mining rights on about 518 ha (1,280 ac) on the ALE Reserve, is
29 not under the control of DOE.
30

31 **F2.1.11 Conservation (Mining and Grazing)**

32
33 More than 200 commenters were against allowing any commercial grazing on the Hanford
34 Site. Many commenters cited grazing as being incompatible with wildlife protection. One
35 commenter specifically mentioned the adverse impact on the elk population if fences were put up
36 to contain livestock. The spreading of noxious weeds was also attributed to livestock grazing,
37 because hoofs tear up the delicate ground cover habitat. There was a concern for possible
38 plutonium contamination, and it was expressed that livestock grazed on the Hanford Site would
39 be bad perceptually for all of Washington State agriculture. Three commenters supported limited
40 grazing, or supported local control instead of this being a Federal decision. (Total Conservation
41 [Mining and Grazing] = 240). RE006, RE007, RE009, RE010, RE014, RE017, RE019, RE020,
42 RE021, RE023, RE026, RL002, RL004, RL005, RL006, RL007, RL008, RL009, RL012, RL013,
43 RL014, RL015, RL016, RL017, RL018, RL019, RL020, RL021, RL023, RL026, RL027, RL028,
44 RL029, RL032, RL034, RL036, RL037, RL038, RL039, RL040, RL041, RL042, RL043, RL045,
45 RL049, RL051, RL055, RL057, RL058, RL059, RL060, RL062, RL064, RL065, RL067, RL068,
46 RL072, RL074, RL076, RL077, RL084, RL085, RL086, RL087, RL092, RL095, RL099, RL100,
47 RL101, RL103, RL107, RL112, RL114, RL115, RL119, RL120, RL121, RL124, RL125, RL136,
48 RL139, RL140, RL141, RL145, RL148, RL149, RL153, RL154, RL157, RL158, RL161, RL163,
49 RL164, RL165, RL167, RL168, RL170, RL172, RL173, RL174, RL175, RL176, RL177, RL178,
50 RL179, RL180, RL181, RL184, RL185, RL186, RL187, RL188, RL189, RL190, RL191, RL192,
51 RL196, RL197, RL198, RL203, RL204, RL206, RL207, RL208, RL210, RL212, RL213, RL217,
52 RL218, RL219, RL220, RL224, RL225, RL226, RL227, RL229, RL230, RL236, RL238, RL239,
53 RL242, RL243, RL249, RL252, RL253, RL254, RL255, RL256, RL261, RL262, RL266, RL267,
54 RL268, RL269, RL271, RL273, RL274, RL275, RL277, RL279, RL280, RL281, RL282, RL283,
55 RL288, RL289, RL292, RL293, RL294, RL296, RL302, RL309, RL312, RL314, RL320, RL326,

1 RL327, RL338, RL339, RL340, RL342, RL343, RL344, RL346, RL355, RL356, RL360, RL362,
2 RL366, RL368, RL369, RL371, RL376, RL379, RL383, RL438, RL439, RL443, RL445, RL448,
3 RL449, RL450, RL451, RLR001, RLR003, RLR004, RLR005, RLR006, RLS002, RLS005,
4 RTP004, RTP005, RTP006, RTP007, RTP008, RTP010, RTP011, RTP012, RTP013, RTR002,
5 RTR003, RTR004, RTR005, RTR006, RTR007, RTR008, RTR010, RTR011, RTR012, RTR014,
6 RTR016, RTR019, RTR022, RTS002, RTS010, RTS013, RTS016, RTS017, RTS018, RTS019
7

8 **DOE's Response:** In response to the strong public sentiment on this issue, DOE has eliminated
9 grazing from its Preferred Alternative in the Final HCP-EIS. In doing so, DOE considered the
10 effects of grazing on the wildlife habitat, including the potential for the spread of noxious weeds
11 when livestock hooves damage the ground cover. The land-use definition of Conservation
12 (Mining and Grazing) was included in DOE's Preferred Alternative in the Revised Draft HRA-EIS
13 to accommodate a grazing permit granted by the State of Washington for the Wahluke State
14 Wildlife Recreation Area. The state allowed this permit to expire on December 31, 1998.
15

16 **F2.1.12 Low-Intensity Recreation**

17
18 Twenty-five letters addressed Low-Intensity Recreation on the Hanford Site. Eight
19 commenters supported boat launches. Four of these supported a boat launch only at Vernita and
20 not at White Bluffs, while four supported a boat launch at both locations (although one stated the
21 boat launch at White Bluffs should be moved downstream of the White Bluffs townsite). Seven
22 commenters opposed a boat launch at White Bluffs, citing the need to minimize damage to the
23 bluffs. Two commenters opposed recreation of any type on the Hanford Site. Several expressed
24 the view that only non-motorized vehicles or recreation be allowed on constructed trails. Several
25 others supported access for limited recreation citing, as examples, camp sites for paddlers and
26 access for kayakers and rafters. (Total Low-Intensity Recreation = 25). RL104, RL120, RL154,
27 RL159, RL181, RL185, RL204, RL206, RL222, RL225, RL230, RL242, RL243, RL249, RL296,
28 RL314, RL346, RL355, RL360, RL438, RL440, RLR004, RTP010, RTR006, RTS019
29

30 **DOE's Response:** When the cooperating agencies looked at expanding recreational
31 opportunities along the Columbia River (e.g., boat launches at Vernita and the White Bluffs), two
32 resources areas – biological and cultural – were always scrutinized. The White Bluffs boat
33 launch has cultural significance that would be best preserved by continued operation of the old
34 ferry launches on both sides of the river. Further, establishing a new boat launch would most
35 likely impact existing tribal cultural resources. The two Hanford avian species that are currently
36 protected under the *Environmental Species Act* (ESA) have been placed in the delisting process
37 and will be removed in one to two years. Those Hanford species left on the ESA are three fishes
38 that could be impacted by installation of a new boat ramp near the Vernita Bridge. This type of
39 balancing between resource protection issues and greater access to those resources is why
40 advice from the Site Planning Advisory Board (SPAB) (see Chapter 6) would be so valuable to
41 DOE.
42

43 **F2.1.13 High-Intensity Recreation**

44
45 Thirty-two comments were received regarding High-Intensity Recreation. Twelve were
46 opposed to this land-use designation, while of the twenty in favor, most were in support of the
47 B Reactor museum proposal. One commenter supporting the designation disagreed with closing
48 off recreational opportunities (river access, for example) for 50 years, while another letter
49 expressed support for recreational opportunities in general. One letter expressed the view that no
50 High-Intensity Recreation should be allowed. (Total High-Intensity Recreation = 32). RL042,
51 RL147, RL159, RL170, RL179, RL185, RL204, RL206, RL221, RL225, RL242, RL243, RL249,
52 RL266, RL282, RL314, RL339, RL342, RL344, RL346, RL355, RL440, RL445, RTM009,
53 RTP003, RTP005, RTP007, RTP010, RTP011, RTR001, RTR006, RTS019, RE028, RL046,
54 RL185, RL201, RL204, RL206, RL230, RL288, RL296, RL314, RL343, RL347, RL360, RL445,
55 RTR012

1 **DOE's Response:** One of the assumptions DOE used in developing its Preferred Alternative
2 was that the public would support preservation of the Manhattan Project's historical legacy
3 consistent with the B Reactor Museum Association's proposal. The public validated this
4 assumption by supporting the B Reactor Museum proposal during the public comment period on
5 the Revised Draft HRA-EIS. The B Reactor would be designated High-Intensity Recreation to
6 allow tourism of the Federally registered landmark. The High-Intensity Recreation area near
7 Vernita Bridge (where the current Washington State rest stop is located) would be expanded
8 across State Highway 240 and to the south to include a boat ramp and other visitor-serving
9 facilities. Because of DOE Environmental Restoration operational concerns, a boat dock at the
10 B Reactor would not be permitted until the Environmental Restoration activities were completed.
11 However, upon completion of the ER efforts, the B Reactor Museum Association could apply for
12 the appropriate permits to construct a boat dock. Rail access to the site would not be hindered
13 by DOE's Preferred Alternative because the extant rail lines are considered pre-existing
14 nonconformances.

15 **F2.1.14 Research and Development**

16 Letters received on this land-use designation cited the need for restricting or prohibiting
17 Research and Development. Two letters expressed the view that this land use would be too
18 costly and too speculative at this time. Suggestions to limit Research and Development to the
19 300 Area, LIGO, and FFTF were made. One commenter discussed the need for the EIS to
20 distinguish between large-scale R&D and smaller scale, time-limited activities that would, by their
21 nature, consume less resources. (Total Research and Development = 15). RE028, RL046,
22 RL185, RL201, RL204, RL206, RL230, RL288, RL296, RL343, RL347, RL360, RL445, RTR012
23

24 **DOE's Response:** The DOE considered the need for Research and Development land use on
25 the Hanford Site and included in its Preferred Alternative in the Final HCP EIS an appropriate
26 amount of acreage to provide for any potential future missions for the Hanford Site as well as
27 economic development. The Research and Development land-use areas in the HCP EIS are
28 adjacent to, or on areas currently used for activities similar to, or the same as potential future
29 uses. This land-use designation reflects the DOE mission of science and technology as well as
30 economic development.
31

32 **F2.1.15 Industrial**

33 Thirty-five commenters addressed the Industrial land-use designation. Some
34 recommended limiting industrial development to the 300 Area and 1100 Area, or areas near the
35 Tri-Cities, which could support the industry with infrastructure. One commenter suggested that a
36 corridor from Energy Northwest (formerly WPPSS) south to the 300 Area. Some expressed that
37 timing was important, that cleanup proceed first, then development, and that existing high-density
38 industrial areas should be filled up first, before expanding land use. One commenter made it
39 clear that industrial development occur only where a documented need exists. A few commenters
40 were against any further industrial development on the Hanford Site. (Total Industrial = 35).
41 RE023, RL174, RL179, RL181, RL204, RL206, RL225, RL230, RL233, RL242, RL249, RL288,
42 RL289, RL314, RL319, RL320, RL322, RL326, RL342, RL343, RL344, RL349, RL355, RL358,
43 RL360, RL443, RL445, RLR001, RTM008, RTP001, RTP005, RTR006, RTR010, RTR011,
44 RTR012
45

46 **DOE's Response:** The need for the Industrial land-use designation is to support the DOE
47 missions of science and technology and Environmental Management (i.e., the cleanup mission).
48 The industrial areas would not be developed at the expense of the cleanup mission, in either
49 budget or schedule. The land designated as Industrial would be developed only with a strategy
50 that embraces development along with the infrastructure to support it.
51

52 **F2.1.16 Industrial-Exclusive**

1 Several commenters stated that the Industrial-Exclusive use area as shown in the
2 Revised Draft Preferred Alternative should be reconfigured to represent what was shown for
3 Industrial-Exclusive in Alternatives One and Two. Specifically, they felt the small western
4 extension of the 200 Areas should be Preservation. (Total Industrial-Exclusive = 9). RL174,
5 RL179, RL204, RL206, RL314, RL343, RL344, RL445, RTR006
6

7 **DOE's Response:** Preservation was only applied if there was some combination of exceptional
8 resource values (e.g., biological, cultural, and edaphic). This approach allowed Preservation to
9 be applied to the saline vernal pools, the sodic soil greasewood community, the sand dune
10 dependent Indian rice grass community, and other location dependent communities. Still, not all
11 areas with exceptional vegetational structure (e.g., the 200 West Area sagebrush stands) are
12 considered appropriate of the Preservation designation. The presence of sagebrush in the 200
13 Areas could interfere with DOE's conducting one of its primary missions and there is no
14 combination of values that would elevate the 200 Area sagebrush into a Preservation designation.
15

16 **F2.1.17 Agriculture**

17

18 Over 200 commenters addressed Agriculture as a land use. More than 180 were
19 opposed to any agriculture on the Hanford Site, citing the possible endangering of the health of
20 the Columbia River from irrigation runoff, the potential damage to the White Bluffs from irrigation,
21 the need for preservation of the shrub-steppe habitat for wildlife, and the possibility that agriculture
22 on the Hanford Site would be bad, perceptually, for all Washington State agriculture. The 20
23 letters in support of agriculture cited the need to support world food production, schools (with the
24 resultant taxes), and the rural area in Grant County in need of economic growth. (Total
25 Agriculture = 202). RE004, RE006, RE014, RE017, RE019, RE020, RE021, RE023, RE026,
26 RE029, RL004, RL005, RL006, RL007, RL008, RL012, RL013, RL015, RL016, RL017, RL018,
27 RL019, RL020, RL021, RL023, RL025, RL026, RL028, RL029, RL032, RL034, RL036, RL037,
28 RL038, RL039, RL040, RL041, RL042, RL043, RL044, RL045, RL049, RL055, RL056, RL057,
29 RL058, RL059, RL060, RL062, RL064, RL065, RL067, RL070, RL072, RL074, RL076, RL077,
30 RL084, RL086, RL090, RL092, RL094, RL095, RL099, RL101, RL107, RL112, RL114, RL115,
31 RL117, RL121, RL125, RL131, RL136, RL139, RL140, RL142, RL145, RL148, RL153, RL156,
32 RL157, RL158, RL159, RL161, RL162, RL163, RL164, RL168, RL174, RL175, RL176, RL178,
33 RL179, RL180, RL181, RL182, RL185, RL186, RL187, RL188, RL189, RL190, RL191, RL192,
34 RL194, RL196, RL198, RL206, RL208, RL210, RL212, RL213, RL217, RL218, RL219, RL221,
35 RL223, RL224, RL225, RL227, RL229, RL230, RL236, RL238, RL239, RL242, RL243, RL250,
36 RL252, RL253, RL254, RL255, RL258, RL261, RL266, RL269, RL271, RL280, RL283, RL284,
37 RL289, RL307, RL312, RL314, RL320, RL321, RL326, RL327, RL330, RL339, RL340, RL342,
38 RL343, RL346, RL355, RL356, RL362, RL363, RL369, RL371, RL376, RL379, RL384, RL439,
39 RL451, RLM003, RLR001, RLS005, RTM001, RTM002, RTM004, RTM005, RTM007, RTM009,
40 RTM010, RTM013, RTM015, RTM017, RTM019, RTP003, RTP004, RTP008, RTP011, RTR002,
41 RTR003, RTR004, RTR011, RTR012, RTR013, RTR014, RTR016, RTR018, RTR019, RTR020,
42 RTR024, RTS007, RTS011, RTS013, RTS017, RTS018, RTS019
43

44 **DOE's Response:** In its Preferred Alternative in the Final HCP EIS, DOE would preclude any
45 agriculture on the Hanford Site. In keeping with its policy as a Natural Resource Trustee, DOE
46 has placed entire Wahluke Slope under management of the USFWS as an overlay wildlife refuge.
47
48

49 **F2.1.18 Policy**

50

51 Forty-one letters relating to policy were received. Half of these addressed the payment in
52 lieu of taxes (PILT), expressing that future payments should be based on lost opportunity instead
53 of current use, and that these payments are important to providing equal educational opportunity
54 to the children of Grant County. Two commenters wanted to add to the Policy Statement in
55 Chapter 6 regarding protection and preservation of environmental resources. One commenter

1 wanted the *Hanford Strategic Plan* to go out for public review. One commenter wanted it noted
2 that there are groundwater and basaltic problems in the area by the river. One commenter
3 expressed a concern that land-use planning should not be used to drive cleanup standards.
4 Another commenter wanted DOE to remain open to the idea of bartering as a way to reach
5 agreement on land use. A summary of comments received under the “policy” category are listed
6 below. (Total Policy = 41). RL154, RL204, RL233, RL297, RL298, RL301, RL303, RL307,
7 RL329, RL332, RL333, RL335, RL336, RL337, RL350, RL351, RL441, RL445, RL447, RLM003,
8 RTM001, RTM004, RTM005, RTM006, RTM010, RTM011, RTM012, RTM016, RTM017, RTM020,
9 RTP001, RTP002, RTP003, RTP009, RTR012, RTS004, RTS006, RTS009, RTS012, RTS022,
10 RTS023

11
12 **PILT Payments.** Twenty letters were received addressing the payment of PILT to Grant County.
13 Fourteen of these cited the need to base future PILT payments on lost opportunity instead of
14 current land use. The remaining 6 letters cited the need for Grant County to receive PILT and the
15 importance of PILT to schools. One commenter cited the preference for opportunity, instead of
16 entitlement.

17
18 **DOE’s Response:** Because DOE has chosen to work with the USFWS to manage the
19 proposed wildlife refuge as an “overlay refuge,” DOE would retain land ownership which, in turn,
20 would maximize the PILT payments to the affected counties. (The DOE pays about 10 times
21 what DOI pays.)

22
23 The Grant County Assessor determined the value of developed farmland by computing the
24 average assessed value per acre for personal property, improvements, and land and trees, to
25 arrive at a total average of \$3,091.67. Personal property includes farm machinery and
26 equipment, including above ground irrigation systems. Improvements include the value of
27 farmhouses and farm buildings, including sheds, warehouses, cold storage, etc. Land includes
28 the value of land, plus underground irrigation systems. Trees include the value of orchards,
29 vineyards, etc. In addition, the assumption was made that 33,000 acres, or 94 percent of the
30 irrigable or previously irrigated land under DOE control in Grant County would be developed
31 farmland to arrive at a total estimated taxable value of \$102 million.

32
33 One commenter said he believes there is an inequality since DOE only pays PILT based upon
34 the value of land (\$1,225 an acre for irrigable land) and does not include additional values listed
35 above. This commenter’s computation of PILT does not comply with DOE’s PILT policies and is
36 not equitable, considering DOE uses very little of the services provided by the County. If the land
37 were transferred, individuals living on and farming the land would require significantly more
38 services by the County, the additional cost of which would probably be more than the additional
39 taxes, collected. The assumption that 33,000 acres would be developed is an aggressive one.
40 The Grant County Assessor has assumed only 27,000 acres would be developed farmland. The
41 same conditions are set forth in signed intergovernmental agreements with Benton and Franklin
42 Counties and PILT is being consistently applied.

43
44 **Continuation of Cleanup.** Five commenters reiterated the need for continuation of the cleanup
45 mission.

46
47 **DOE’s Response:** The DOE considers the cleanup mission at Hanford to be its primary
48 mission, and the land-use planning effort is complementary to and not in conflict with that
49 mission. In fact, the land-use plan would facilitate the cleanup mission.

50
51 **Human Health and Safety.** Commenters cited the need to consider human health and safety,
52 since parts of the Hanford Site would be contaminated for a long time, if not forever.

53
54 **DOE’s Response:** The DOE has taken into consideration that cleanup would take years to
55 complete to an acceptable level. This land-use plan would enable regulators to set cleanup

1 standards to levels commensurate with the land use planned at each cleanup site.

2
3 **Environmental Justice:** Some commenters stated that DOE did not adequately address the
4 Environmental Justice impact caused by not expanding farming opportunities on the Wahluke
5 Slope to Hispanic agricultural workers.

6
7 **DOE's Response:** On February 11, 1994, the President issued Executive Order 12898
8 (59 Fed. Reg. 7629, 1994), *Federal Actions to Address Environmental Justice in Minority*
9 *Populations and Low-Income Populations*. This Executive Order directs each Federal agency to
10 make environmental justice part of the agency mission. To the greatest extent practicable and
11 permitted by law, Federal agencies must identify and address disproportionately high and
12 adverse human health or environmental effects of their programs, policies, and activities on
13 minority populations and low-income populations.

14
15 As stated in the President's February 11, 1994 memorandum that accompanied the Executive
16 Order, "Each Federal agency shall analyze the environmental effects, including human health,
17 economic, and social effects, of Federal actions, including effects on minority communities and
18 low-income communities, when such analysis is required by NEPA (42 USC Section 4321,
19 et seq.). Mitigation measures outlined or analyzed in an environmental assessment,
20 environmental impact statement, or record of decision, whenever feasible, should address
21 significant and adverse environmental effects of proposed Federal actions on minority
22 communities and low-income communities." The memorandum and Executive Order ensure
23 that minority and low-income communities will have a voice in the development and
24 implementation of any Federal action that might adversely affect those communities.

25
26 In addition, the memorandum and Executive Order indicate that all Federal agencies are to be
27 proactive in identifying and, to the extent practicable, mitigating any potential disproportionately
28 high and adverse impacts on minority and low-income communities that could result from
29 proposed Federal actions.

30
31 In order to implement the provisions of Executive Order 12898, the *U.S. Department of Energy*
32 *Environmental Justice Strategy, Executive Order 12898* (DOE 1995a) was prepared. Guidance
33 provided in this publication, as well as CEQ's *Environmental Justice Guidance under NEPA*
34 (March 1998), and EPA's *Guidance for Incorporating Environmental Justice Concerns in EPA's*
35 *NEPA Compliance Analyses* (April 1998) were used, to the extent practicable, in the Revised
36 Draft HRA-EIS.

37
38 Because the proposed action for the Wahluke Slope is Preservation, there would no impacts to
39 the Hispanic population because no changes would be made to the current use of the lands.
40 Preservation is consistent with the wishes of the two Tribal Nations who served as consulting
41 Tribal governments for this EIS, and who represent the minority and low-income communities
42 who would be most directly affected by the proposed Federal action.

43 44 **F2.1.19 Procedure**

45
46 Several letters had comments regarding membership of the Site Planning Advisory Board
47 (SPAB). The SPAB could be established upon adoption of the Comprehensive Land-Use Plan in
48 the HCP EIS Record of Decision. The inclusion of equal seats for: 1) each Tribe as a sovereign
49 nation, 2) regulators, 3) the National Marine Fisheries Service, 4) the National Science
50 Foundation, and 5) the Washington State Department of Ecology; and less seats for the counties
51 were offered by six commenters as improvements to the SPAB membership as described in the
52 Revised Draft HRA-EIS (Chapter 6). Two commenters wanted the name of the document
53 changed to better reflect the emphasis on land-use planning. Several commenters expressed
54 the opinion that the Secretary of Energy's announcement in April 1999 of the Revised Draft's
55 Preferred Alternative prejudiced the outcome. One commenter noted that cultural reviews should

1 be prepared before land use is designated. One commenter would like the DOE to slow down
2 the decision, and one would like to speed up the decision. One commenter noted that all land-
3 use plans must support and preserve natural resources. A more detailed description of these
4 comments, along with DOE's responses, are listed below. (Total Procedure = 11). RL124,
5 RL154, RL204, RL290, RL292, RL293, RL446, RTM018, RTP013, RTP003, RTS004
6

7 **SPAB Membership.** Commenters cited concerns regarding membership of the SPAB.
8

9 **DOE's Response:** As presented in the Final HCP EIS, the makeup of the SPAB would be the
10 nine cooperating agencies that participated in the preparation of the Revised Draft HRA-EIS and
11 development of the land-use alternatives. However, membership is not necessarily fixed. As an
12 advisory board, the board would support DOE by reviewing and providing advice for Area
13 Management Plans and Resource Management Plans, providing policy advice to DOE in areas
14 involving coordination of land and resource management, and advising DOE during consideration
15 of nonconforming proposals within the boundary of the Hanford Site.
16

17 **Predecisional Announcement.** Some commenters felt the outcome of the public review had
18 been prejudiced by the Secretary of Energy's announcement in April 1999 of the DOE's Preferred
19 Alternative prior to the document being published and in the hands of the public.
20

21 **DOE's Response:** The Secretary's announcement is consistent with the NEPA process and
22 consistent with the DOE's Preferred Alternative. The DOE has indicated in previous drafts of the
23 EIS its support for the proposal to expand the wildlife refuge to include the entire Wahluke Slope
24 and management of the Wahluke Slope for Preservation. The Secretary's announcement
25 supported the DOE's Preferred Alternative proposed in the Revised Draft HRA-EIS. Management
26 of the entire Wahluke Slope for Preservation is consistent with the ROD for the DOI Hanford
27 Reach EIS issued in 1996.

28
29 The DOE has both the right and the responsibility under NEPA to identify the agency's Preferred
30 Alternative. Federal NEPA regulations under 40 CFR 1502.14(e) require the Agency to "...identify
31 the agency's preferred alternative or alternatives, if one of more exists, in the draft statement and
32 identify such alternative in the final statement unless another law prohibits the expression of such
33 as preference." The Secretary's announcement is consistent with the Preferred Alternative in the
34 Final HCP EIS.
35

36 The DOE does not believe that the Secretary's announcement has in any way prejudiced the
37 outcome of the HCP EIS or the development of the NEPA ROD. The DOE has repeatedly
38 expressed its support for management of the Wahluke Slope for Preservation, beginning in 1994
39 when the DOE concurred in the Hanford Reach EIS.
40

41 **Name Change:** Commenters wanted a name change for the document.
42

43 **DOE's Response:** During the public review and comment period on the Revised Draft HRA-EIS,
44 DOE solicited public input on a proposed name change for the EIS document to better reflect its
45 purpose. The DOE proposed changing the name from the *Hanford Remedial Action*
46 *Environmental Impact Statement and Comprehensive Land-Use Plan* (HRA-EIS) to the *Hanford*
47 *Comprehensive Land-Use Plan Environmental Impact Statement* (HCP EIS). The public
48 supported this change, and in the Final EIS the name has been changed.
49

50 **Timing of the Decision:** The timing of the decision was commented on, both for speeding it up
51 and slowing it down.
52

53 **DOE's Response:** The DOE has several legal and policy drivers requiring the preparation of a
54 land-use plan. (Please see comment response under "No-Action Alternative").
55

1 **Cultural/Natural Resources Reviews:** Cultural reviews and natural resources should be taken
2 into account when land use is being planned.
3

4 **DOE's Response:** Both cultural reviews and natural resources have been, and would continue
5 to be taken into account when land-use decisions are made. The purpose of the SPAB is to
6 advise the DOE when land-use implementation is being considered.
7

8 **F2.1.20 Plan**

9
10 Eight letters addressed the comprehensive land-use plan. One of the commenters cited
11 concern that what appears to be “management by committee” is too risky. Another commenter
12 thanked DOE for keeping the process open. One commenter was glad that Hanford was
13 created, or there would not be all the land there is today available to preserve. One commenter
14 expressed that the time frame for land-use planning should be about seven generations out.
15 Another cited the lack of impacts described from industrial development. Two commenters were
16 concerned that the sensitivity of LIGO to noise and vibration from other activities at Hanford was
17 not adequately addressed. (Total Plan = 8). RL269, RL446, RTM015, RTR009, RTS013,
18 RTS020, RTS025, RTS026
19

20 **DOE's Response:** The CLUP is meant to be a living document that brings DOE into cooperative
21 planning with the local governments where possible, but also allows DOE to fulfill its Federal
22 missions. To make the CLUP a viable planning tool, DOE has proposed a SPAB that would
23 provide a forum for local governments to discuss their planning intentions and how Hanford might
24 fit in as a regional complex. The DOE's NEPA process suggests that EISs which establish land-
25 use plans be reviewed by the NEPA Compliance Officer for revisions on a five-year schedule. As
26 an advisory board, the SPAB would be able to tackle such issues as:
27

- 28 C The extreme sensitivity of the LIGO facilities to noise and vibration created by other
29 activities on the Hanford Site even though such activities may be at large distances
30 from LIGO.
- 31
- 32 C The Energy Northwest lease to continue WNP-2 for power production and also allow
33 for economic reuse of WNP 1 and 4.
- 34
- 35 C The 200 Areas where contaminated areas are also important wildlife habitat.
- 36
- 37 C How economic development should be coordinated, and where PILT payments fit into
38 the economic health of the region.
39

40 **F2.1.21 Public Involvement**

41
42 The DOE received 65 letters and testimonies related to the public involvement process for
43 the Revised Draft HRA-EIS. Specifically, these included comments on the “opportunity to
44 comment” (33), comments on the multiple public hearings (15), and comments on the quality of
45 the document and the work that went into preparing the document (24). A summary of the
46 comments received under this category is provided below. (Total Public Involvement = 65).
47 RE012, RE013, RE028, RL003, RL006, RL043, RL052, RL054, RL103, RL153, RL154, RL166,
48 RL178, RL179, RL185, RL200, RL204, RL205, RL206, RL225, RL228, RL230, RL234, RL270,
49 RL273, RL281, RL290, RL291, RL292, RL304, RL314, RL318, RL319, RL322, RL328, RL341,
50 RL342, RL344, RL345, RL349, RL355, RL361, RL381, RL443, RL445, RLM001, RTM012,
51 RTP001, RTP002, RTP004, RTP005, RTP006, RTP008, RTP010, RTR004, RTR006, RTR011,
52 RTR012, RTR013, RTR014, RTS009, RTS011, RTS015
53

54 **“Opportunity to Comment.”** Commenters thanked DOE for the opportunity to review and
55 comment on the document. All but one commenter was appreciative of the comment process,

1 including the consideration DOE was giving to the comments received, and for listening to the
2 public on this topic. One commenter was discouraged, citing the perception that the decision
3 had already been made.
4

5 **DOE's Response:** The Federal regulations for NEPA, 40 CFR 1500-1508, require DOE to make
6 an EIS available to the public for review and comment. The DOE has considered all comments
7 received on the Revised Draft HRA-EIS, and has made changes to its Preferred Alternative in the
8 Final HCP EIS based on public comments received.
9

10 **Multiple Public Hearings.** Commenters were appreciative of DOE holding public hearings both
11 in Richland, and outside of the Tri-Cities. One commenter pointed out that a hearing is required
12 by NEPA regulations. Commenters in Portland complimented the DOE for going outside
13 Washington State to listen to Oregon residents' concerns regarding "this profound and very
14 important issue." A Mattawa resident cited his appreciation for the DOE going to the location
15 where the issues are closest to the people. One Richland commenter said it was "refreshing" for
16 the DOE to listen.
17

18 **DOE's Response:** The Federal regulations for NEPA, 40 CFR 1503, require DOE to solicit
19 comments from those persons or organizations who may be interested or affected by the
20 decision.
21

22 **Document Quality/Preparation:** Commenters were complimentary about the quality of the
23 document and the amount of work that went into preparing the document. Citations included: "a
24 lot of progress has been made," "It was a tremendous amount of work. It took years to
25 accomplish," "give the DOE congratulations," "good work," "well researched and
26 comprehensive," "excellent research and enormous staff work," "good job of reaching out to the
27 community," "extensive and excellent qualitative evaluation and comparison," "thoughtful and
28 comprehensive," and "high quality assessment." These comments were directed at DOE and
29 the nine cooperating agencies who prepared the document. Commenters also were pleased that
30 DOE was addressing the land-use issue.
31

32 **DOE's Response:** A first draft of the HRA-EIS was published for public review in August 1996.
33 In response to comments received on that first draft, DOE worked with the cooperating agencies
34 and consulting Tribal governments to establish a framework for the environmental analyses and
35 the proposed CLUP policies and implementing procedures presented in this Final HCP EIS.
36 Substantial agreement was reached among the cooperating agencies and consulting Tribal
37 governments on the development of land-use designations, and on the format for determining the
38 potential environmental impacts associated with the land uses proposed in this EIS.
39

40 **F2.1.22 Salmon**

41
42 Several letters commented that the salmon need protection. Fifty-two letters were
43 received, all supporting protection of salmon and salmon habitat, supporting salmon recovery
44 efforts, and expressing concern for the dwindling salmon population, the health of the salmon and
45 the people who eat them, and restoration of the salmon runs. Some recommended that we do
46 everything in our power to protect and preserve the salmon and other anadromous fish. (Salmon
47 total = 52). RE005, RE015, RE017, RE021, RL003, RL014, RL025, RL044, RL063, RL069,
48 RL118, RL122, RL146, RL151, RL156, RL162, RL182, RL194, RL209, RL212, RL222, RL223,
49 RL246, RL251, RL261, RL266, RL268, RL284, RL299, RL321, RL324, RL338, RL347, RL356,
50 RL363, RL378, RLR001, RTP004, RTP007, RTP008, RTP012, RTR014, RTR018, RTS007,
51 RTS008, RTS009, RTS010, RTS012, RTS017, RTS018, RTS019, RTS021
52

53 **DOE's Response:** The Hanford Site is home to some of the region's most unique natural
54 resources. In two years, the salmon will be the only endangered species on the Hanford Site.
55 (The Bald Eagle and the Peregrine Falcon have increased in population enough to be taken off

1 the Endangered Species List.) Salmon prime habitat is in the Columbia River in the Wahluke
2 Slope and along the Hanford Reach. The concern for the erosion of the White Bluffs into the river
3 is the silting of the gravel beds where the salmon spawn. This was a significant factor behind the
4 decision to disallow farming as a land use on the Wahluke Slope in the DOE's Preferred
5 Alternative in the Final HCP EIS.

6 7 **F2.1.23 Hanford Reach**

8
9 More than 100 letters were received supporting protection of the Hanford Reach. Most
10 letters cited the critical salmon spawning habitat, as well as the eagles and other wildlife that eat
11 the salmon. Some feel that the future of the entire Northwest depends on the cleanliness of the
12 river. Concern was expressed for the erosion of the White Bluffs, and the effects of orchard
13 growth on the spawning habitat. Although all commenters supported protection of the Reach,
14 three opposed Federal control to achieve that end. One commenter stated that DOE is
15 responsible for contaminating the Reach. (Total Hanford Reach = 109). RE002, RE013, RE015,
16 RE018, RE028, RL031, RL032, RL041, RL042, RL043, RL048, RL052, RL059, RL063, RL074,
17 RL084, RL114, RL116, RL117, RL132, RL133, RL142, RL146, RL154, RL160, RL162, RL177,
18 RL179, RL188, RL191, RL209, RL212, RL214, RL219, RL221, RL235, RL237, RL240, RL241,
19 RL244, RL251, RL262, RL265, RL266, RL268, RL272, RL278, RL281, RL284, RL288, RL291,
20 RL296, RL299, RL303, RL324, RL342, RL344, RL363, RL364, RL366, RL369, RL440, RL448,
21 RL449, RL450, RL451, RLR001, RLR004, RLR006, RTM006, RTM009, RTP001, RTP002,
22 RTP005, RTP006, RTP007, RTP008, RTP011, RTP012, RTR002, RTR004, RTR005, RTR006,
23 RTR008, RTR010, RTR011, RTR013, RTR014, RTR015, RTR016, RTR018, RTR020, RTR022,
24 RTR024, RTR026, RTS001, RTS003, RTS004, RTS007, RTS009, RTS010, RTS011, RTS012,
25 RTS013, RTS016, RTS017, RTS018, RTS019, RTS020

26
27 **DOE's Response:** The Hanford Reach is a valuable national resource, abundant in natural
28 beauty and home to a large biologically diverse wildlife. It is because of the intrinsic value of this
29 free-flowing section of the Columbia River and the area surrounding it that DOE has included the
30 Hanford Reach in the area placed under USFWS management as an overlay wildlife refuge.

31 32 **F2.1.24 Tribal Rights**

33
34 Several of the commenters expressed their concern that Tribal rights be honored
35 by DOE. Ten of the twenty-one commenters held firm that all Tribal rights must be supported.
36 Many of the letters also expressed support for the protection of cultural and religious sites from
37 disturbance. One commenter noted that Tribal rights would be protected by local control. One
38 commenter recommended working with the Yakama Indian Nation. One commenter supported
39 modifications to Alternative One to accommodate the needs of the Tribes. One commenter
40 noted that the land need not be given back to farmers since the land was originally stolen from the
41 Wanapum, Yakama, and Nez Perce. One commenter wished DOE had considered an option to
42 deed stewardship back to the Tribes. (Total Tribal Rights = 21). RE023, RL044, RL155, RL159,
43 RL168, RL267, RL291, RL292, RL293, RL354, RL356, RL358, RTP001, RTP002, RTP009,
44 RTP011, RTP013, RTS004, RTS006, RTS011, RTS013

45
46 **DOE's Response:** Tribal governments and DOE agree that the Tribal governments' treaty-
47 reserved right of taking fish at all "usual and accustomed" places applies to the Hanford Reach of
48 the Columbia River where it passes through Hanford, and that treaty rights are inalienable rights
49 exercised by tribal members.

50
51 Nevertheless, Tribal governments and DOE disagree over the applicability to the Hanford Site of
52 Tribal members, treaty-reserved rights to hunt, gather plants, and pasture livestock. Both the
53 Tribal governments and DOE can point to legal justification for their positions in this dispute. As
54 this dispute could take years to resolve, the Tribal governments who worked as consulting
55 agencies and DOE decided not to delay completion and implementation of a comprehensive

1 land-use plan for the Hanford Site while awaiting the resolution of this dispute. Instead, the Tribes
2 and DOE have gone ahead with the land-use planning process while reserving all rights to assert
3 their respective positions regarding treaty rights. Neither the existence of this EIS nor any portion
4 of its contents is intended to have any influence over the resolution of the treaty rights dispute.
5 There are too many instances where DOE and the Tribal governments agree that actions need to
6 be taken to protect Tribal interests where arguing over the legal bases of those interests would be
7 counterproductive to both parties.

8 9 **F2.1.25 Wild and Scenic River**

10 Of all the commenters addressing a Wild and Scenic River designation for the Columbia
11 River flowing through the Hanford Reach, 37 were in favor of the designation and 6 were
12 opposed. Some of the commenters noted that the designation must be made without delay, and
13 several noted that the river and riverbanks must be protected at all costs. Those opposed cited
14 that such a designation gives no assurance that the area would be managed to meet existing and
15 future local needs, such as water rights. (Total Wild and Scenic = 43). RL119, RL131, RL133,
16 RL134, RL147, RL168, RL182, RL185, RL204, RL206, RL230, RL235, RL240, RL241, RL248,
17 RL268, RL286, RL287, RL289, RL314, RL320, RL321, RL326, RL352, RL356, RL360, RL366,
18 RL440, RLR001, RLR003, RLR004, RTM015, RTP002, RTP003, RTP004, RTR019, RTS001,
19 RTS007, RTS008, RTS016, RTS017, RTS019, RTS024

20
21
22 **DOE's Response:** The *Wild and Scenic River Act of 1968*, as amended, protects selected
23 national rivers possessing outstanding scenic, recreational, geological, fish and wildlife, historical,
24 cultural, and other similar values. These rivers are to be preserved in a free flowing condition to
25 protect water quality and for other vital national conservation purposes. The Columbia River,
26 along the Hanford Reach, is a 52-mile-long, free-flowing section which is irreplaceable spawning
27 ground for salmon and other anadromous fish. This area, including the banks of the Columbia
28 River, exhibits a unique diversity of plant and animal life, and DOE is committed to protecting the
29 environment along this stretch of the river. However, the designation of the Hanford Reach
30 portion of the Columbia River as a Wild and Scenic River is not within DOE's authority. Public
31 Law 100-605, passed by Congress on November 4, 1988, authorizes a comprehensive study of
32 the Hanford Reach of the Columbia River to identify the outstanding features of the Hanford
33 Reach and its immediate environment, and to examine alternatives for their preservation. The
34 Secretary of the Interior has affirmed the addition of the Hanford Reach to the National Wild and
35 Scenic Rivers System and is waiting for Congressional action to implement the decision.

36 37 **F2.1.26 Habitat**

38
39 More than 70 commenters addressed wildlife habitat. Sixty-nine of the letters were in
40 favor of setting aside land for conservation and preservation of habitat, noting that the wildlife
41 needs our protection. Many of the commenters noted that the number of native species, plants,
42 animals, and native plant communities at Hanford; and the diversity and scale of the ecosystem
43 is unique in this area. Many of the commenters mentioned the valuable shrub-steppe habitat,
44 which is home to many species, including the sage sparrow, desert butterflies, and species of
45 snakes, other reptiles, and amphibians. It was noted that at least two new plants to science have
46 been discovered on the Hanford Site. Concern for the well-being of wildlife, plants, wildflowers,
47 and fish habitat was expressed. Some emphasized the need for large areas of land for the
48 wildlife, noting that if the land is fragmented, the wildlife cannot survive. Three commenters did
49 not support wildlife habitat, noting that it is only weeds, and that DOE should not support wildlife
50 over children's education. One of the opposing commenters noted that it is possible for wildlife to
51 coexist with farming and development. (Total Habitat = 72). RE006, RE012, RE015, RE017,
52 RE020, RE023, RL007, RL008, RL013, RL029, RL032, RL038, RL056, RL059, RL060, RL061,
53 RL063, RL067, RL070, RL086, RL087, RL103, RL114, RL123, RL139, RL146, RL158, RL161,
54 RL163, RL164, RL165, RL168, RL171, RL175, RL178, RL179, RL222, RL227, RL238, RL256,
55 RL257, RL261, RL267, RL268, RL272, RL276, RL278, RL288, RL291, RL314, RL326, RL338,

1 RL379, RL445, RL452, RLP001, RLR006, RTM002, RTM007, RTM009, RTP001, RTP007,
2 RTP008, RTP009, RTP011, RTP013, RTP014, RTR002, RTR023, RTS014, RTS017, RTS018
3

4 **DOE's Response:** The DOE recognizes the unique shrub-steppe ecosystem on the Hanford
5 Site, and the abundance of plant and animal life that flourish in the natural state of this area. It is
6 because of the need to protect the environment (meeting DOE's policy as a Natural Resource
7 Trustee), that acreage for preservation is considered a high priority. Many of the plants and
8 animals on the Hanford Site need large expanses of land to survive. The DOE's Preferred
9 Alternative in the Final HCP-EIS protects and preserves the environment by placing a large
10 portion of the Hanford Site under management of the USFWS as an overlay wildlife refuge.
11

12 **F2.1.27 Wahluke Slope**

13

14 The Wahluke Slope was the topic for many commenters. A total of 63 commenters cited
15 concerns regarding the Wahluke Slope. More than half (59 percent) were against any farming on
16 the Wahluke Slope. Ten supported farming for the area, particularly its suitability for irrigated
17 production. Seventeen commenters supported an impartial study of all of the potential uses of
18 the Wahluke Slope. (Total Wahluke Slope = 63). RE012, RE029, RL117, RL121, RL131, RL160,
19 RL161, RL163, RL179, RL204, RL221, RL222, RL250, RL268, RL283, RL288, RL297, RL298,
20 RL301, RL305, RL308, RL324, RL329, RL332, RL333, RL335, RL336, RL337, RL347, RL350,
21 RL351, RL352, RL363, RL441, RL447, RL450, RLM001, RTM005, RTM010, RTM011, RTM012,
22 RTM013, RTM014, RTM015, RTM020, RTP005, RTP006, RTP007, RTP008, RTR002, RTR006,
23 RTR009, RTR013, RTR014, RTS001, RTS002, RTS003, RTS007, RTS010, RTS011, RTS012,
24 RTS017, RTS021
25

26 **DOE's Response:** The DOE's Preferred Alternative in the Final HCP EIS would preclude
27 agricultural activities on the Hanford Site. The DOE has placed the entire Wahluke Slope under
28 the management of the USFWS as an overlay wildlife refuge, as the WDFW, the USFWS, and
29 the U.S. EPA support the designation of the entire Wahluke Slope for Preservation. The WDFW,
30 the USFWS, and DOE have recognized that the White Bluffs overlooking the Columbia River are
31 fragile and have been sloughing off into the Columbia River, in part due to irrigation runoff. Also,
32 the Wahluke Slope is the last remaining large and healthy shrub steppe ecosystem in the Pacific
33 Northwest, and the Hanford Reach is the last free-flowing section of the Columbia River. In
34 recognition of the fragility of the White Bluffs and the important ecological and cultural resources
35 of the Wahluke Slope and the Hanford Reach, DOE has, in its Preferred Alternative in the Final
36 HCP EIS, designated the entire Wahluke Slope for Preservation as an overlay wildlife refuge.
37

38 The DOE believes that further studies of the potential uses of the Wahluke Slope are not
39 warranted. The DOE believes that adequate studies have already been conducted to assess the
40 potential impacts of alternative uses of the Wahluke Slope. Potential environmental, cultural, and
41 socioeconomic impacts of alternative uses of the Wahluke Slope were assessed. Further
42 studies would essentially duplicate analyses already conducted for the Draft and Revised Draft
43 HRA-EIS and studies conducted by the National Park Service in support of the 1994 Hanford
44 Reach Environmental Impact Statement for the Comprehensive River Conservation Study
45 (referred to as the Hanford Reach EIS) and the ensuing 1996 DOI ROD. The Hanford Reach EIS
46 and ROD were Congressionally mandated to assess the outstanding features of the Hanford
47 Reach and its environs, including environmental and cultural values, and to examine alternatives
48 for preserving those values. The ROD concluded that, in order to protect the White Bluffs and
49 the cultural and ecological resources of the Wahluke Slope, the entire Wahluke Slope should be
50 managed as a wildlife refuge by the USFWS.
51

52 The DOE concurred in the 1994 DOI Hanford Reach EIS. Management of the Wahluke Slope for
53 Preservation as an overlay wildlife refuge under the Preferred Alternative is consistent with that
54 concurrence. The 1996 ROD for the Hanford Reach EIS precludes DOE from managing the
55 Wahluke Slope in a manner that would any adverse impacts on the values for which the Wahluke

1 Slope is under consideration for National Wildlife Refuge status.

2
3 **F2.1.28 Split Record of Decision**

4
5 Many commenters supported a split ROD to expedite the designation of a wildlife refuge
6 (i.e., without waiting for the cleanup to be completed). One hundred and eighty-six commenters
7 wrote concerning this issue. A few commented that they wanted the separate decision no later
8 than December 1999. (Total Split ROD = 186). RE002, RE003, RE009, RE010, RE019, RE021,
9 RE026, RL005, RL006, RL007, RL008, RL009, RL010, RL013, RL014, RL015, RL016, RL017,
10 RL018, RL019, RL022, RL023, RL027, RL033, RL034, RL035, RL037, RL041, RL042, RL048,
11 RL049, RL051, RL052, RL053, RL055, RL057, RL064, RL065, RL066, RL068, RL069, RL074,
12 RL076, RL078, RL079, RL080, RL081, RL082, RL083, RL084, RL085, RL087, RL089, RL092,
13 RL093, RL095, RL096, RL099, RL100, RL101, RL102, RL103, RL104, RL105, RL107, RL109,
14 RL112, RL115, RL125, RL127, RL128, RL129, RL130, RL132, RL133, RL134, RL135, RL136,
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22 RL376, RL377, RL378, RL379, RL380, RL382, RL448, RL450, RLR005, RLR006, RLS002,
23 RLS005, RTP004, RTP006, RTP008, RTP012, RTR005, RTR006, RTR008, RTR012, RTS014,
24 RTS018, RTS019, RTS020.

25
26 **DOE Response:** While the scope of the Final HCP-EIS covers land-use planning for the entire
27 Hanford Site, it defers the evaluation of impacts associated with individual remedial actions to Tri-
28 Party Agreement documents. The ROD for this Final HCP-EIS is scheduled to be published in
29 November 1999; therefore, no “separate” ROD needs to be published in order to expedite the
30 implementation of the Hanford Comprehensive Land-Use Plan.
31
32
33

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Johnson, R.E.
Johnston, Blake
Jones, Randy
Jonson, Pat
Juteau, Gene
Kaldor, Reed
Kear, Ronard
Keele, Brian
Kennedy, Virginia
Knight, Jim
Lechter, Irv
Ledger, Edward

Lee, James
Lewis, Steve
Lilga, Mike
Lofgren, Dan
Long, Susan
Longmire, Richard
Maden, John
Madox, Theresa
Madsen, Wayne
Maptsson, Guss
Martin, Bill
Mason, Teresa
McCabe, Stacy
McElroy, Gregory
McGovern, Edward
McGreer, T.H.
Meacham, Sam
Meister, J. David
Miamilazzo, Robert
Miller, Reid
Miller, Karrie
Moore, Emmett
Mortland, Richard
Murray, Wendy
Murthy, K.S.
Naber, J.A.
Neill, Robert
Nelson, Iral
Nettleton, Bill
Neuman, Bruce
Nichols, Barry
O'Brien, Marilyn
Ochu, David
Panther, Don
Partain, Bill
Patt, Ralph
Peel, Robert
Penberthy, Larry
Penfield, Janet
Pergiel, Lark Ann
Petras, Chuck
Porter, Ross
Porter, Lynn
Price, Eric
Price, Earl
Ragland, Charles
Randolph, Gretchen
Redus, Kenneth
Reed, R.M.
Ridolfi, Callie

Ritts, Scott
Roberts, Dale
Robinson, Dr. Ray
Robinson, Richard
Robinson, John V.
Rolka, Thomas
Romero, Louisa
Root, Bill
Ruby, Lawrence
Ryan, Tammy
Sather, Jeff
Schwab, Pat
Seddon, W.A.
Selph, Judy
Sharp, Michael
Sheldon, Rick
Shick, Twane
Sims, Lynn
Sirek, Dale
Smith, Bobbi
Smith, Dan
Soldat, Joseph K.
Sparks, Kenneth
Spencer, Joseph D.
Stabin, Tova
Starin, Glenn
Stedman, Eric
Stephenson, Gary
Straw, Richard
Stull, Lynn
Swartz, Michael
Tewksbury, Ross
Trask, Newell
Treleaven, Michael
Tucker, Tom
Tunnel, Linda
Van Lenten, Christina
Waters, James
Weber, George
Weisbrodt, B.A.
Weissberg, Sue
Whitley, James
Wilson, Sally
Winkler, Ed
Yorgeson, Dave
Young, Robert
Young, Lawrence
Yuse, Frank
Zimmerman, Pam

Glossary

100-year flood. A flood event of a magnitude that occurs, on average, once every 100 years, and equates to a 1-percent probability of occurring in any given year.

Adequate public facilities. Facilities which have the capacity to serve development without decreasing levels of service below locally established minimums.

Affected environment. In an environmental impact statement, a description of the existing environment covering information that directly relates to the scope of the proposed action and alternatives that are analyzed in the impact analysis. The affected environment provides a baseline and must include sufficient detail to support the impact analysis, including cumulative impacts. Environmentally sensitive resources, such as floodplains and wetlands, threatened and endangered species, prime and unique agricultural lands, and historic and cultural resources, must be identified.

Agriculture. Improvements or activities associated with the growing, cultivating, and/or harvesting of crops and livestock, including those activities necessary to prepare the agricultural commodity for shipment.

Agricultural land-use designation. As presented in this environmental impact statement, an area designated for the tilling of soil, raising of crops and livestock, and horticulture for commercial purposes along with all those activities normally and routinely involved in horticulture, and the production of crops and livestock. Includes related activities consistent with Agricultural uses.

Atmospheric stability. A measure of the amount of mixing and turbulence in the atmosphere.

Attainment area. Any area that is designated, pursuant to 42 U.S.C. 7407(d) of the *Clean Air Act of 1970*, as having ambient conditions equal to or less than national primary or secondary ambient air quality standards for a particular air pollutant or a group of air pollutants.

Animal-unit-month (AUM). An AUM is defined as the amount of forage required by an animal-unit (i.e., a mature cow weighing 453.6 kg [1,000 lbs] with unweaned calf) for one month assuming average daily consumption to be 11.8 kg (26 lbs) of dry matter. Therefore, by convention, an AUM equals 353.8kg (780 lbs) of dry forage. The amount of area that is required for each AUM determines the stocking rate or the actual number of animals on a specific area at a specific time. The area of land allowed per animal unit for the entire grazing period of the year is expressed as animal units/unit area (AU/Ha) or unit area/AUM (Ha/AUM).

Background radiation. Radiation from cosmic sources; naturally occurring radioactive materials, including radon (except as a decay product of source or special nuclear material); consumer products containing nominal amounts of radioactive material or producing nominal amounts of radiation; and global fallout that exists in the environment (e.g., from the testing of nuclear explosive devices).

Barrier. Man-made components of a waste management system designed to prevent or impede the release of radionuclides or other contaminants to the biosphere. Barriers can include the waste form, waste container, and materials placed over, under, or around these containers or wastes. For example, an engineered cap constructed over a waste site is a barrier.

1 **Basalt.** A dark grey to black, fine grained igneous rock composed primarily of calcium feldspar
2 and pyroxene, with or without olivine. This material underlies the Hanford Site, and may be
3 quarried for use as riprap in the construction of caps to prevent the migration of contaminants in
4 surface soils and burial grounds by preventing infiltration of precipitation.
5

6 **Benthic.** Living on or at the bottom of a body of water.
7

8 **Biodiversity.** The diversity of ecosystems, species, and genes, and the variety and variability of
9 life. Biodiversity also is a qualitative measure of the richness and abundance of ecosystems and
10 species in a given area.
11

12 **Bounding.** Represents the maximum reasonably foreseeable event or impact. All other
13 reasonably foreseeable events or impacts would have fewer and/or less severe environmental
14 impacts.
15

16 **Candidate species.** A plant or animal species that is under consideration by the U.S. Fish and
17 Wildlife Service or Washington Department of Fish and Wildlife for listing as either threatened or
18 endangered.
19

20 **Cap.** Construction of an engineered barrier over the top of a waste site in order to prevent or
21 impede the release of radionuclides or other waste material into the environment.
22

23 **Carcinogen.** Any substance or agent that is capable of producing cancer.
24

25 **Chronic exposure.** The absorption or intake of hazardous material over a long period of time
26 (e.g., over a lifetime).
27

28 **Class I area.** Under the *Clean Air Act of 1970*, the designation applies to pristine areas, such as
29 national parks and wilderness areas, where substantial growth is effectively precluded in order to
30 avoid degradation of air quality. Goat Rocks Wilderness Area is the closest Class I area to the
31 Hanford Site, located approximately 90 miles northwest.
32

33 **Class II area.** A designation for areas under the *Clean Air Act of 1970* where moderate
34 degradation of air quality is permissible. The Hanford Site and its immediate vicinity are in a
35 Class II Area.
36

37 **Cold War.** Intense economic, political, military, and ideological rivalry between nations just short
38 of military conflict. Major expansions in the production of nuclear materials for military
39 applications were undertaken at the Hanford Site so that the Nation could maintain an
40 overwhelming arsenal of nuclear weapons. In the context of this environmental impact
41 statement, the Cold War refers to the period from the end of World War II to 1989 (when the
42 Berlin Wall was dismantled).
43

44 **Confined aquifer.** An aquifer bounded above and below by less permeable layers.
45 Groundwater in the confined aquifer is under a pressure greater than atmospheric pressure.
46

47 **Conservation.** Areas of ecological, geological, archaeological, and cultural significance and
48 sensitivity that are to be protected and managed so as to maintain the essential qualities derived
49 from the landscape, but contain supplemental values of scientific, education, historical, scenic,
50 and mineral importance that may be suited to human uses insofar as the essential qualities
51 remain intact over the landscape.
52

53 **Conservation (Mining) land-use designation.** As presented in this environmental impact
54 statement, an area reserved for the management and protection of archeological, cultural,

1 ecological, and natural resources. Limited and managed mining could occur as a special use
2 (e.g., a permit would be required) within appropriate areas. Limited public access would be
3 consistent with resource conservation. Includes activities related to Conservation (Mining),
4 consistent with the protection of archeological, cultural, ecological, and natural resources.
5

6 **Conservation (Mining and Grazing) land-use designation.** An area reserved for the
7 management and protection of archeological, cultural, ecological, and natural resources. Limited
8 and managed mining and commercial grazing could occur as a special use (e.g., a permit would
9 be required) within appropriate areas. Limited public access would be consistent with resource
10 conservation. Includes activities related to Conservation (Mining and Grazing), consistent with
11 the protection of archeological, cultural, ecological and natural resources.
12

13 **Controlled area.** An area to which access is controlled to protect individuals from exposure to
14 radiation or radioactive and/or hazardous materials.
15

16 **Contamination.** The presence of unwanted radioactive and/or hazardous materials above
17 background concentrations in environmental media (e.g., air, soil, water) or on the surfaces of
18 structures, objects, or personnel.
19

20 **Criteria pollutants.** Substances for which national ambient air quality standards have been
21 established by the U.S. Environmental Protection Agency.
22

23 **Critical areas.** Critical areas are required by Chapter 36.70A of the *State of Washington's*
24 *Growth Management Act*. Guidelines for defining critical areas are given in WAC 365-190-080.
25 Items to be considered by the local planning agency are as follows: (1) wetlands, (2) aquifer
26 recharge areas, (3) frequently flooded areas, (4) geologically hazardous areas, and (5) fish and
27 wildlife habitat conservation areas. Counties and cities may use information prepared by the
28 Washington Department of Fish and Wildlife (WDFW) to classify and designate locally important
29 habitats and species. Priority habitats and priority species are being identified by the WDFW for
30 all lands in Washington State. While these priorities are those of the Department, they and the
31 data on which they are based may be considered by counties and cities.
32

33 **Critical habitat.** Any air, land, or water area determined (through a regulatory action under the
34 *Endangered Species Act of 1973*) to be essential to the survival of a population of an endangered
35 or threatened species or habitat deemed to be necessary for the recovery of a threatened or
36 endangered species. Critical habitat has not been designated on the Hanford Site.
37

38 **Cumulative impact.** The impact on the environment that results from the incremental impact of
39 the action when added to other past, present, and reasonably foreseeable, future actions.
40 Cumulative impacts can result from individually minor, but collectively significant actions taking
41 place over a period of time.
42

43 **Cultural resources.** Areas or objects that are of cultural significance to human history at the
44 national, state, or local level. Generally includes paleontological, pre-contact, and post-contact
45 resources, as well as resources of traditional use or religious value to Native Americans.
46

47 **Decommissioning.** The process of removing a facility from operation, followed by
48 decontamination, entombment, dismantlement, or conversion to another use.
49

50 **Decontamination.** The actions taken to reduce or remove substances that pose a substantial
51 present or potential hazard to human health or the environment, (e.g., removing radioactive
52 contamination from facilities, soil, or equipment by washing, chemical action, mechanical
53 cleaning, or other techniques).
54

1 **Development.** Any change in use, or extension of the use of the land, including, but not limited
2 to, the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of
3 any improvements.
4

5 **DOE orders.** Requirements internal to the U.S. Department of Energy that establish agency
6 policy and procedures, including procedures for compliance with applicable laws.
7

8 **Derived concentration guides.** Concentrations of radionuclides in air and water that an
9 individual could continuously consume, inhale, or be immersed in at average annual rates without
10 receiving an effective dose equivalent greater than 100 mrem/yr.
11

12 **Dose (or radiation dose).** A generic term that means absorbed dose, dose equivalent, effective
13 dose equivalent, committed dose equivalent, committed effective dose equivalent, or total
14 effective dose equivalent. Relates to a chemical to which an organism is exposed; generally
15 denotes the quality of radiation or energy that is absorbed by the organism.
16

17 **Dose conversion factor.** Any factor used to change an environmental measurement to dose in
18 units of concern.
19

20 **Ecosystem.** The interacting system of a biological community and its physical environment,
21 considered as a unit in nature.
22

23 **Emission standards.** Legally enforceable limits on the quantities and/or kinds of air pollutants
24 that can be emitted into the atmosphere.
25

26 **Endangered species.** Animals, birds, fish, plants, or other living organisms threatened with
27 extinction by man-made or natural changes in their environment. Requirements for declaring a
28 species endangered are contained in the *Endangered Species Act of 1973*.
29

30 **Emergency planning zone (EPZ).** The EPZ is an area surrounding a facility for which
31 emergency planning and preparedness efforts are carried out to ensure that prompt and effective
32 actions can be taken to minimize the impact to onsite personnel, public health and safety, and the
33 environment in the event of an operational emergency. The EPZ begins at the boundary of the
34 facility and ends at a distance for which special planning and preparedness efforts are no longer
35 required. Access restrictions are not required within an EPZ; however, DOE would be
36 responsible for ensuring adequate planning and preparedness efforts. A plan that evaluates
37 hazard assessments and determines the size of EPZs is a requirement of DOE Order 151.1,
38 *Comprehensive Emergency Management System Order*.
39

40 **Environmental justice.** The fair treatment of people of all races, cultures, and income with
41 respect to the development, implementation, and enforcement of environmental laws, regulations,
42 and policies. Executive Order 12898 required Federal agencies to identify and address any
43 potentially disproportionately high and adverse human health and environmental effects of agency
44 policies, programs, and activities on minority and low-income populations.
45

46 **Evapotranspiration.** The combined processes by which water is transferred from the surface
47 of the Earth to the atmosphere, including evaporation of liquid or solid water, and transpiration
48 from plants.
49

50 **Exclusive use zone (EUZ).** The EUZ is an area designated for DOE operations activities
51 associated with a waste site or facility. Each DOE nuclear facility is encouraged by DOE Order
52 420.1, *Facility Safety*, to maintain siting distance for a public buffer zone as part of the defense in
53 depth approach to prevent public health effects in the event of an unmitigated accident. The EUZ
54 is reserved for DOE or other hazardous operations with severely restricted public access. This

1 zone extends from the facility fence line to a distance at which threats to the public from routine
2 and accidental releases diminish to the point where public access can be routinely allowed. It is
3 inside the emergency planning zone (EPZ).

4
5 **Exposure scenario.** A set of facts, assumptions, and inferences about how exposure takes
6 place that aids the exposure assessor in evaluating, estimating, or quantifying exposures.

7
8 **Facility area.** An area within the Hanford Site Boundary immediately surrounding a facility or
9 group of facilities that functions under process safety management and a common emergency
10 response plan.

11
12 **Floodplain.** The portion of a river valley that becomes covered with water when the river
13 overflows its banks at flood stage.

14
15 **Food chain.** The pathways by which any material entering the environment passes from the first
16 absorbing organism through plants and animals, including humans.

17
18 **Fugitive dust.** The particulate matter that is stirred up and released into the atmosphere during
19 excavation or construction activities.

20
21 **Grazing.** To feed on growing herbage, attached algae, or phytoplankton

22
23 **Groundwater.** The supply of water below the land surface in the zone of saturation.

24
25 **Groundwater mounds.** A hydrologic condition, often caused by artificial recharge of an aquifer,
26 in which "mounds" of groundwater are created. These mounds have been known to alter the
27 natural hydraulic gradients and drainage patterns of an aquifer. The pressure and weight of the
28 groundwater mounds can increase the hydrostatic head so all nearby groundwater, and any
29 associated contaminant plume, could move more rapidly toward a receptor.

30
31 **Grouting.** The process of immobilizing or fixing solid or liquid forms of waste to enable safe
32 storage or disposal. Generally, grout is a fluid mixture of cementitious materials and waste that
33 sets up as a solid mass.

34
35 **Half-life.** The time in which half the atoms of a particular radioactive substance disintegrate to a
36 different nuclear form. Used as a measure of the persistence of radioactive materials; each
37 radionuclide has a characteristic, constant half-life. Measured half-lives vary from millionths of a
38 second to billions of years.

39
40 ***Hanford Federal Facility Agreement and Consent Order.*** The *Hanford Federal Facility*
41 *Agreement and Consent Order* (also referred to as the Tri-Party Agreement), is a binding
42 agreement, negotiated pursuant to Section 120 of the *Comprehensive Environmental Response,*
43 *Compensation, and Liability Act of 1980*, and other regulations signed by the U.S. Department of
44 Energy, the U.S. Environmental Protection Agency (Region 10), and the Washington State
45 Department of Ecology, to organize responsibilities for remediation of the Hanford Site and to
46 establish milestones by which the remediation will be accomplished. This agreement commits
47 the three agencies to a long-term cooperative program to remediate the contaminated sites at
48 Hanford. The Tri-Party Agreement contains a blueprint for remediation and uses enforceable
49 milestones to keep the program on schedule.

50
51 **Hazard classification.** A safety classification based on potential onsite consequences. Criteria
52 for this classification are discussed in DOE Order 5480.23, *Nuclear Safety Analysis Reports*.

53
54 **Hazardous air pollutant.** Any air pollutant subject to a standard promulgated under 42 U.S.C.

1 Section 7412 or other requirements established under 42 U.S.C. Section 7412 of the *Clean Air*
2 *Act of 1970*, including 42 U.S.C. Section 7412 (g), (j), and (r) to the *Clean Air Act of 1970*. The
3 State of Washington regulates similar pollutants as "toxic air pollutants." However, State
4 regulations apply only to new sources; Federal regulations apply to new and existing sources.
5 The list of chemicals regulated by the state overlaps with the Federal list, but is considerably
6 longer.

7
8 **Hazardous material.** A substance or material, including a hazardous substance, that has been
9 determined by the U.S. Secretary of Transportation to be capable of posing an unreasonable risk
10 to health, safety, and property when transported in commerce.

11
12 **Hazardous substance.** Any substance that, when released to the environment in an
13 uncontrolled or unpermitted fashion, becomes subject to the reporting and possible response
14 provisions of the *Clean Water Act of 1977* and the *Comprehensive Environmental Response,*
15 *Compensation, and Liability Act of 1980.*

16
17 **Hazardous waste.** Those wastes that are identified as hazardous pursuant to RCRA
18 (40 CFR 261).

19
20 **High-efficiency particulate air (HEPA) filter.** A filter with an efficiency of at least 99.95% that is
21 used to separate particles from exhaust streams prior to release into the atmosphere.

22
23 **Highest and best use (of property).** Section 101-47.4909 of the Federal Property Management |
24 Regulations defines the "highest and best use" as that use to which a property can be put that |
25 produces the highest monetary return from the property, promotes its maximum value, or serves |
26 a public or institutional purpose. The "highest and best use" determination must be based upon |
27 the property's economic potential, qualitative values inherent in the property, and utilization factors |
28 affecting land use such as zoning, physical characteristics, other private and public uses in the |
29 vicinity, neighboring improvements, utility services, access, roads, location, and environmental |
30 and historical considerations. |

31
32 **High-Intensity Recreation land-use designation.** As presented in this environmental impact
33 statement, an area allocated for high-intensity, visitor-serving activities and facilities (commercial
34 and governmental) such as golf courses, recreational vehicle parks, boat launching facilities,
35 Tribal fishing facilities, destination resorts, cultural centers, and museums. Includes related
36 activities consistent with High-Intensity Recreation.

37
38 **High-level waste.** The highly radioactive waste material that results from processing or
39 reprocessing spent nuclear fuel, including liquid waste produced directly from reprocessing and
40 any solid waste derived from the liquid that contains a combination of transuranic and fission
41 product nuclides in quantities that require permanent isolation. High-level waste may include
42 other highly radioactive material that the U.S. Nuclear Regulatory Commission, consistent with
43 existing law, determines by rule to require permanent isolation.

44
45 **Historic resources.** The sites, districts, structures, and objects that are considered limited and
46 nonrenewable because of an association with historic events, persons, or social or historic
47 movements.

48
49 **Horticulture.** The science and art of growing fruits, vegetables, flowers, or ornamental plants.

50
51 **Hydraulic conductivity.** The capacity of a porous medium to transport water. The parameter
52 relating the volumetric flux to the driving force in flow through a porous medium (particularly water
53 through soil); a function of both the porous medium and the properties of the fluid.

1 **Hydraulic gradient.** The slope of the water table.

2
3 **Impact.** The effect, influence, alteration, or imprint of an action. Impacts may be beneficial or
4 detrimental.

5
6 **Industrial land-use designation.** As presented in this environmental impact statement, an area
7 suitable and desirable for activities, such as reactor operations, rail, barge transport facilities,
8 mining, manufacturing, food processing, assembly, warehouse, and distribution operations.
9 Includes related activities consistent with Industrial uses.

10
11 **Industrial-Exclusive land-use designation.** As presented in this environmental impact
12 statement, an area suitable and desirable for treatment, storage, and disposal of hazardous,
13 dangerous, radioactive, and nonradioactive wastes. Includes related activities consistent with
14 Industrial-Exclusive uses.

15
16 **Infrastructure.** The basic services, facilities, and equipment needed for the operation and
17 growth of an area.

18
19 **Institutional controls.** The term “institutional controls” is intended to be a broad term. It
20 generally includes all non-engineered restrictions on activities, access, or exposure to land,
21 groundwater, surface water, waste and waste disposal areas, and other areas or media. Some
22 common examples of tools to implement institutional controls include restrictions on use or
23 access, zoning, governmental permitting, public advisories, installation master plans, and legal
24 restrictions such as deed notices or other environmental easements. Institutional controls may
25 be temporary or permanent restrictions or requirements.

26
27 **Interim action (NEPA).** An action that may be undertaken while work on a required program
28 environmental impact statement is in progress, and the action is not covered by an existing
29 program statement. An interim action may not be undertaken unless such action: (1) is justified
30 independently of the program; (2) is itself accompanied by an adequate environmental impact
31 statement or has undergone other *National Environmental Policy Act of 1969* review; and (3) will
32 not prejudice the ultimate decision on the program (i.e., interim action prejudices the ultimate
33 decision on the program when the action tends to determine subsequent development or limits
34 alternatives).

35
36 **Ion exchange.** The reversible interchange of ions of like charge within a medium.

37
38 **Land use.** A term used to indicate the utilization of any piece of land. The way in which land is
39 being used is the land use.

40
41 **Land-use planning.** A decision-making process to determine the future or end use of a parcel
42 of land, considering such factors as current land use, public expectations, cultural
43 considerations, local ecological factors, legal rights and obligations, technical capabilities, and
44 cost.

45
46 **Life-cycle costs.** All costs, except the cost of personnel occupying a facility, from the time that
47 the space requirement is defined until the facility passes out of government hands.

48
49 **Low-Intensity Recreation land-use designation.** As presented in this environmental impact
50 statement, an area allocated for low-intensity, visitor-serving activities and facilities, such as
51 improved recreational trails, primitive boat launching facilities, and permitted campgrounds.
52 Includes related activities consistent with Low-Intensity Recreation.

53
54 **Low-level waste.** Radioactive waste that is not classified as high-level waste, transuranic

1 waste, or spent nuclear fuel. Test specimens of fissionable material irradiated for research and
2 development, and not for the production of power or plutonium, may be classified as low-level
3 waste if the concentration of transuranic elements is less than 100 nanocuries per gram of
4 waste. The U.S. Department of Energy, U.S. Environmental Protection Agency, and U.S. Nuclear
5 Regulatory Commission share the responsibility for managing low-level waste.
6

7 **Manhattan Project.** The code name for the large-scale national project that developed the first
8 atomic bomb.
9

10 **Maximally exposed individual (MEI).** An hypothetical person who lives near the Hanford Site
11 who, by virtue of location and living habits, could receive the highest possible radiation dose.
12

13 **Maximum contaminant level (MCL).** Under the *Safe Drinking Water Act of 1974*, the maximum
14 permissible concentrations of specific constituents in drinking water that is delivered to any user
15 of a public water system that serves 15 or more connections and 25 or more people. The
16 standards take into account the feasibility and cost of attaining the standard. In this
17 environmental impact statement, MCLs are referred to as *Drinking Water Standards*.
18

19 **Milestone.** An important or critical event that must occur in order to achieve the objectives of the
20 Tri-Party Agreement.
21

22 **millirem (mrem).** One thousandth (10^{-3}) of a rem (see also, rem).
23

24 **Mitigation.** Those actions that avoid impacts altogether, minimize impacts, rectify impacts,
25 reduce or eliminate impacts, or compensate for impacts.
26

27 **Mitigation bank.** Wetland enhancement, restoration, or creation undertaken to provide
28 mitigation (compensation) for wetlands losses from future development activities undertaken in
29 advance of development as part of a credit program.
30

31 **Mixed waste.** Waste containing both radioactive and hazardous components as defined by the
32 *Atomic Energy Act of 1954* and the *Resource Conservation and Recovery Act of 1976*,
33 respectively.
34

35 **Modified Mercalli intensity (MMI).** The MMI scale (designated by Roman numerals I through
36 XII) is used to measure the intensity of an earthquake in a particular area. It differs from the
37 Richter Scale (which measures the energy released by an earthquake). Briefly, the scale is:
38 I --Barely Felt; II -- Just Felt; III -- Noticeable; IV -- Rattling; V -- Felt Strong; VI -- Frightening; VII --
39 Disturbing; VIII -- Panicking; IX -- Some Damage; X -- Much Damage; and XI -- Complete
40 Destruction.
41

42 **Multiple use management.** Management of the various surface and subsurface resources so
43 that they are utilized in the combination of ways that will best meet the present and future needs
44 of the public, without permanent impairment of the productivity of the land or the quality of the
45 environment.
46

47 **National Ambient Air Quality Standards (NAAQS).** Air quality standards established by the
48 *Clean Air Act of 1970*. Primary NAAQS are intended to protect public health with an adequate
49 margin of safety. Secondary NAAQS are intended to protect the public welfare from any known
50 or anticipated adverse effects of a pollutant.
51

1 **National Environmental Research Parks.** Outdoor laboratories set aside for ecological
2 research to study the environmental impacts of energy developments and for informing the public
3 of environmental and land use options. The parks were established under the U.S. Department
4 of Energy to provide protected land areas for research and education in the environmental
5 sciences and to demonstrate the environmental compatibility of energy technology development
6 and use.

7
8 **National Priorities List (NPL).** A formal listing of the most hazardous waste sites in the nation,
9 as established under the *Comprehensive Environmental Response, Compensation, and Liability*
10 *Act of 1980*, that have been identified for remediation.

11
12 **National Register of Historic Places.** A list of architectural, historical, archaeological, and
13 cultural sites of local, state, or national significance, established by the *Historic Preservation Act*
14 *of 1966*, and maintained by the National Park Service. Sites are nominated to the Register by
15 state or Federal agencies.

16
17 **Nearest public access location.** For facility accident analysis, the location of the nearest point
18 where members of the public could be present, such as on an uncontrolled public highway that
19 crosses the Hanford Site.

20
21 **Nitrogen oxides (NO_x).** Gases formed from atmospheric nitrogen and oxygen when
22 combustion takes place under high temperature and high pressure. Nitrogen oxides include nitric
23 oxide (NO) and nitrogen dioxide (NO₂). Nitrogen oxides are considered to be a major air pollutant
24 and are regulated under the *Clean Air Act*. In the presence of sunlight, nitric oxide combines with
25 atmospheric oxygen to form nitrogen dioxide, which can cause lung damage at high
26 concentrations.

27
28 **Nonattainment area.** An area which is shown by monitoring data to exceed any national primary
29 or secondary ambient air quality standard for a pollutant.

30
31 **NO_x.** A generic term used to describe oxides of nitrogen (see nitrogen oxides).

32
33 **Nuclear fuel.** Materials that are fissionable and can be used in nuclear reactors for the
34 production of energy.

35
36 **Nuclide.** A generic term referring to all known isotopes, both stable and unstable, of the
37 chemical elements.

38
39 **Offsite.** Any place located outside of the Hanford Site boundary.

40
41 **Onsite.** A place located within the Hanford Site boundary.

42
43 **Operable unit.** A discrete set of one or more release sites that are considered together for
44 assessment and remedial activities. Criteria for placement of release sites into an operable unit
45 include geographic proximity, similarity of waste characteristics and site types, and the
46 possibilities for economy of scale.

47
48 **Outfall.** The end of a drain or pipe that carries waste water or other effluents into a ditch, pond,
49 or river.

50
51 **Overlay wildlife refuge.** An overlay wildlife refuge is one which is owned by one or more
52 Federal agencies and managed by the USFWS.

53
54 **Permeability.** The degree of ease with which water can pass through a rock or soil.

1 **Physiographic province.** An extensive portion of the landscape, normally encompassing many
2 hundred square miles, which portrays similar qualities of soil, rock, shape, and vegetation of the
3 same geomorphic origin.
4

5 **Planning criteria.** The factors used to guide development of the land use plan, or revision, to
6 ensure that it is tailored to the issues previously identified and to ensure that unnecessary data
7 collection and analyses are avoided.
8

9 **Plume.** The cloud of a pollutant in air, surface water, or groundwater formed after the pollutant is
10 released from a source.
11

12 **Plutonium-Uranium Extraction (PUREX) Facility.** The PUREX Facility on the Hanford Site
13 used a chemical process to reprocess spent nuclear fuel and irradiated targets.
14

15 **PM₁₀.** All particulate matter in the ambient air with an aerodynamic diameter less than or equal to
16 ten (10) micrometers.
17

18 **Polychlorinated biphenyls (PCBs).** A class of chemical substances formerly manufactured for
19 use as an insulating fluid in electrical equipment. These chemical substances are highly toxic to
20 aquatic life, persist in the environment, and accumulate in animal tissues.
21

22 **Porosity.** The ratio of the volume of pores of a material to the volume of its mass.
23

24 **Post-contact resources.** Sites, districts, structures, and objects considered limited and
25 nonrenewable because of their association with renowned events, persons, or social
26 movements.
27

28 **Pre-contact resources.** All evidences of human activity that predate recorded history and can
29 be used to reconstruct lifeways and culture history of past peoples. These include sites,
30 artifacts, and the contexts in which they occur.
31

32 **Pre-contact.** Of, relating to, or existing in times antedating written history. Pre-contact cultural
33 resources are those that antedate written records of the human cultures that produced them.
34

35 **Prehistoric resources.** All evidence of human activity that predates recorded history and can
36 be used to reconstruct lifestyles and cultural history of past peoples, including artifacts and the
37 contexts in which the artifacts occur.
38

39 **Preservation land-use designation.** As presented in this environmental impact statement, an
40 area managed for the preservation of archeological, cultural, ecological, and natural resources.
41 No new consumptive uses (e.g., mining or extraction of non-renewable resources) would be
42 allowed within this area. Limited public access would be consistent with resource preservation.
43 Includes activities related to Preservation uses.
44

45 **Probable maximum flood.** The largest flood for which there is any reasonable expectancy in a
46 specific area. The probable maximum flood is normally several times larger than the largest
47 flood of record.
48

49 **Process knowledge.** The set of information used by trained and qualified individuals who are
50 cognizant of the origin, use, and location of waste-generating materials and processes in
51 sufficient detail to certify the identity of the waste.
52

53 **Processing (of irradiated nuclear fuel).** Applying a chemical or physical process designed to
54 alter the characteristics of the nuclear fuel matrix or to recover a particular material.

1 **Production reactor.** A nuclear reactor that is used to irradiate target material to produce special
2 nuclear material or by-product material.

3
4 **rad.** The unit of absorbed dose of ionizing radiation. One rad is equal to an absorbed dose of
5 100 ergs/gram.

6
7 **Radiation (ionizing radiation).** Alpha particles, beta particles, gamma rays, x-rays, neutrons,
8 high-speed electrons, high-speed protons, and other particles capable of producing ions. In the
9 context of this EIS, radiation does not include non-ionizing radiation such as radiowaves,
10 microwaves, or visible, infrared, or ultraviolet light.

11
12 **Radioisotope.** An unstable isotope of an element that decays or disintegrates spontaneously,
13 emitting radiation in the process. Approximately 5,000 natural and artificial radioisotopes have
14 been identified. Usually synonymous with *radionuclide*.

15
16 **Raptor.** A bird of prey (e.g., hawk, eagle, etc.).

17
18 **Red Zone.** The Bureau of Reclamation's (BoR's) Red Zone is an administrative area on the
19 Wahluke Slope set aside by the BoR from irrigated agricultural development while the BoR
20 studies the connection between irrigation in this area and mass wasting events at the White
21 Bluffs.

22
23 **Recharge.** Replenishment of water to an aquifer.

24
25 **Record of Decision (ROD).** A public document that records the final decision(s) concerning a
26 proposed action. The ROD is based in whole or in part on information and technical analysis
27 generated during either the *Comprehensive Environmental Response, Compensation, and*
28 *Liability Act of 1980* process, or the *National Environmental Policy Act of 1969* process, both of
29 which consider public comments and community concerns during the decision-making process.

30
31 **Redd.** The spawning ground or nest of various fish species; the term usually refers to salmon
32 nests.

33
34 **Region of influence.** The region in which the direct and indirect principal socioeconomic and
35 environmental justice effects of actions are likely to occur and are expected to be of
36 consequence.

37
38 **rem.** The dosage of ionizing radiation that will cause the same biological effect as 1 roentgen of
39 x-ray or gamma ray exposure. Acronym for roentgen-equivalent man.

40
41 **Remediation.** The process of cleaning up a site where a release of a hazardous substance has
42 occurred.

43
44 **Reprocessing (of nuclear fuel).** Processing of reactor irradiated nuclear material (primarily
45 spent nuclear fuel) to recover fissile and fertile material, in order to recycle the materials, primarily
46 for defense purposes. Historically, reprocessing has involved aqueous chemical separations of
47 desired elements (typically uranium or plutonium) from undesired elements in the fuel.

48
49 **Research and Development land-use designation.** As presented in this environmental
50 impact statement, an area designated for conducting basic or applied research that requires the
51 use of a large-scale or isolated facility. Includes scientific, engineering, technology development,
52 technology transfer, and technology deployment activities to meet regional and national needs.
53 Includes related activities consistent with Research and Development.

1 **Reverse-well injection.** Process in which solutes are injected in an underlying geologic
2 formation through wells. During the early years of Hanford, waste solutions were pumped into
3 reverse wells as a method of waste disposal.

4
5 **Riparian habitat.** A specialized form of wetland restricted to areas along, adjacent to, or
6 contiguous with perennially flooded and intermittently flowing rivers and streams. Also,
7 periodically flooded lake and reservoir shore areas.

8
9 **Riprap.** A loose assemblage of stones that may be used in cap construction. In caps, riprap is
10 used as a capillary break to retard downward migration of water and to limit biointrusion.

11
12 **Risk.** Quantitative expression of possible loss that considers both the probability that a hazard
13 causes harm and the consequences of that event.

14
15 **Safety analysis report.** A report, prepared in accordance with DOE Orders 5481.1B and
16 5480.23, that summarizes the hazards associated with the operation of a particular facility and
17 defines minimum safety requirements.

18
19 **Sanitary waste.** Liquid or solid wastes that are not considered hazardous or radioactive,
20 generated as a result of routine operations of a facility.

21
22 **Saturated zone.** A subsurface area in which all pores are filled with water under pressure equal
23 to or greater than atmospheric pressure.

24
25 **Scope.** In an environmental impact statement, the range of actions, alternatives, and impacts to
26 be considered.

27
28 **Scoping process.** An early and open public participation process for determining the scope of
29 issues to be addressed and for identifying the significant issues related to a proposed action.

30
31 **Sedimentary interbeds.** Rock layers composed of materials, such as sand or gravel, which
32 are derived from the breakdown of various rocks and are layered between other rock types.

33
34 **Seismicity.** The phenomenon of earth movements; seismic activity. Seismicity is related to the
35 location, size, and rate of occurrence of earthquakes.

36
37 **Sensitive species.** A Washington State category for plant species considered vulnerable or
38 declining, that could become endangered or threatened without active management or removal of
39 threats. Also sometimes used as a generic term for any plant and wildlife species that are
40 threatened or endangered, rare, vulnerable or declining, or monitored by state or Federal
41 agencies.

42
43 **Seral shrub-steppe.** The developmental phase of a climax community with characteristic
44 structure and plant species composition. The shrub-steppe community is typically a disclimax
45 community of sagebrush and grasses caused by heavy grazing and wildland fire control policy.

46
47 **Shrub-steppe.** Typically a treeless area covered by grasses and shrubs and having a semiarid
48 climate. Precipitation is typically very slight, but sufficient to support the growth of sparse grass
49 and other plants adapted to living in conditions where water is scarce. Washington State
50 Department of Fish and Wildlife considers shrub-steppe a priority habitat.

51
52 **Solid waste.** Any garbage, refuse, or sludge from a waste treatment plant, water supply
53 treatment plant, or air pollution control facility and other discarded material, including, solid liquid,
54 semisolid, or contained gaseous material resulting from industrial, commercial, mining, and

1 agricultural operations and from community activities. Solid waste does not include solid and
2 dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows, or
3 industrial discharges which are point sources subject to permits under Section 402 of the *Federal*
4 *Water Pollution Control Act, as amended*, or source, special nuclear, or by-product material as
5 defined by the *Atomic Energy Act of 1954*, as amended.
6

7 **SO_x**. A generic term used to describe oxides of sulfur. The combination of sulfur oxides with
8 water vapor produces acid rain (see also, sulfur oxides).
9

10 **Stabilization (of waste sites)**. Actions taken to reduce the environmental hazards associated
11 with an area used for disposal of hazardous and/or radioactive materials.
12

13 **Stakeholder**. Any person or organization with an interest in or affected by U.S. Department of
14 Energy activities. Stakeholders may include representatives from Tribal governments, Federal
15 agencies, state agencies, Congress, unions, educational groups, industry, environmental groups,
16 other groups, and members of the general public.
17

18 **Sulfur oxides**. Pungent, colorless gases formed primarily by the combustion of fossil fuels.
19 Sulfur oxides are considered to be major air pollutants and may damage the respiratory tract and
20 vegetation (see also, SO_x).
21

22 **Superfund**. The common name used for the *Comprehensive Environmental Response,*
23 *Compensation, and Liability Act of 1980* and its amendments.
24

25 **Surface water**. All waters that are open to the atmosphere and subject to surface runoff (rivers,
26 lakes, reservoirs, streams, impoundments, seas, estuaries, etc.) and all springs, wells, or other
27 collectors that are directly influenced by surface water.
28

29 **Surplus facility**. Any facility or site (including equipment) that has no identified programmatic
30 use and may or may not be contaminated with radioactive or hazardous materials to levels that
31 require controlled access.
32

33 **Syncline**. A fold in the rock structure inclining upward on both sides of a median axis as in a
34 downward fold of rock strata; opposite of anticline.
35

36 **Threatened species**. Any species that is likely to become an endangered species within the
37 foreseeable future throughout all or a significant part of its range.
38

39 **Transuranic waste**. Waste containing more than 100 nanocuries of alpha-emitting transuranic
40 isotopes, which have half-lives greater than 20 years, per gram of waste, except for (1) high-level
41 radioactive waste; (2) waste that the U.S. Department of Energy has determined, with
42 concurrence of the Administrator of the U.S. Environmental Protection Agency, does not need the
43 degree of isolation required by 40 CFR 191; or (3) waste that the U.S. Nuclear Regulatory
44 Commission has approved for disposal on a case-by-case basis in accordance with 10 CFR 61.
45

46 **Transmissivity**. A measure of the capacity of a water-bearing unit to transmit fluid. The product
47 of the thickness and the average hydraulic conductivity of a unit. Also, the rate at which water is
48 transmitted through an aquifer under a specific hydraulic gradient at a prevailing temperature and
49 pressure.
50

51 **Tritium**. A radioactive isotope of the element hydrogen, with two neutrons and one proton (H-3).
52

53 **Unconfined aquifer**. An aquifer that has a water table or surface at atmospheric pressure. At
54 Hanford, the unconfined aquifer is the uppermost aquifer and is the most susceptible to

1 contamination from Hanford Site operations.

2
3 **Vadose zone.** The area between the land surface and the top of the water table. Saturated
4 bodies, such as perched groundwater, may exist in the vadose zone. The vadose zone is also
5 known as the zone of aeration and the unsaturated zone.

6
7 **Vegetation type.** A classification of the plant community on a site based on the dominant plant
8 species in the community.

9
10 **Volatile organic compound (VOC).** Chemical containing mainly carbon, hydrogen, and oxygen
11 that readily evaporates at ambient temperature. Exposure to some organic compounds can
12 produce toxic effects on biological tissues and processes.

13
14 **Vulnerable aggregations.** Vulnerable aggregations are animal species that must aggregate at
15 some specific location and at a specific time to complete some action in their life cycle. These
16 aggregations include sage grouse, a bat colony, great blue heron at a nesting rookery, snakes in
17 a hibernaculum, migrating salmon at a river falls, elk herds during rut, etc. When these animals
18 aggregate, the species becomes vulnerable aggregations that can be severely impacted by
19 predators or disease.

20
21 **Waste management.** The planning, coordination, and direction of functions related to the
22 generation, handling, treatment, storage, transport, and disposal of waste, as well as associated
23 surveillance and maintenance activities.

24
25 **Waste minimization.** An action that economically avoids or reduces the generation of waste by
26 source reduction, reducing the toxicity of hazardous waste, improving energy usage, or recycling.
27 These actions are consistent with the general goal of minimizing present and future threats to
28 human health, safety, and the environment.

29
30 **Water level (water table).** The top elevation of the groundwater.

31
32 **Wetland.** Those areas that are inundated or saturated by surface water or groundwater at a
33 frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in
34 a saturated soil environment. These areas are frequently transitional between terrestrial and
35 aquatic systems.

36
37 **Wilderness area.** An area formally designated by Act of Congress as part of the National
38 Wilderness Preservation System.

39
40 **Wild and Scenic River.** A portion of a river that has been designated by Congress as part of the
41 *National Wild and Scenic Rivers Act of 1968*.

42
43 **Withdrawn lands.** Withdrawn lands are lands DOE has “borrowed” from other Federal agencies
44 for DOE’s mission. These lands could be either Public Domain lands (as in the case of the BLM
45 and some of the BoR lands) or lands that left the Public Domain and were subsequently acquired
46 by another Federal agency for their mission (i.e., BoR lands for the Columbia Basin Irrigation
47 Project) that were in turn borrowed by DOE for its mission.

48
49 **Worker.** Any person whose day-to-day activities are controlled by process safety management
50 programs and a common emergency response plan. When evaluating the potential
51 consequences of an accident, the worker is defined as an individual located within 100 m (328 ft)
52 downwind of the facility location where the accident occurs.

53
54 **Zoning.** A police power measure, enacted by general purpose unit of local government, in which

1 the community is divided into districts or zones within which permitted and special uses are
2 established as are regulations governing lot size, building bulk, placement, and other
3 development standards.
4

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Final Hanford Comprehensive Land-Use Plan Environmental Impact Statement – Comment Response Document

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Actual comment documents are currently not available electronically

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1 **CR1.0 Introduction**

2
3 On April 23, 1999, the U.S. Department of Energy (DOE) issued the *Revised Draft*
4 *Hanford Remedial Action Environmental Impact Statement and Comprehensive Land-Use Plan*
5 (DOE/EIS-0222D) for review by Washington and Oregon state governments, Indian Tribes, other
6 Federal agencies, county and municipal governments, special-interest groups, environmental
7 groups, and the general public. The formal comment period ran for 45 days, from April 23, 1999
8 to June 7, 1999.

9
10 As part of the public comment process, DOE held four public hearings to receive
11 comments. These hearings were held in Portland, Oregon on May 18, 1999; Richland,
12 Washington on May 20, 1999; Mattawa, Washington on June 2, 1999; and Spokane, Washington
13 on June 3, 1999.

14
15 The DOE solicited public comment on a proposed name change for the document as well
16 as on the document itself. The DOE proposed changing the name of the EIS from the *Hanford*
17 *Remedial Action Environmental Impact Statement and Comprehensive Land-Use Plan* (HRA-
18 EIS) to a title that better reflects land use. The public endorsed this change and, in the Final EIS,
19 the name of the HRA-EIS has been changed to the *Hanford Comprehensive Land-Use Plan*
20 *Environmental Impact Statement* (HCP EIS).

21
22 The DOE received more than 400 comment documents on the Revised Draft HRA-EIS.
23 Comment documents included letters, postcards, questionnaires, and surveys as well as
24 electronic mail. Comment documents were received from tribes and Federal agencies,
25 Washington and Oregon state agencies, county and municipal governments, environmental
26 groups, and private citizens. In addition, more than 200 pages of transcripts were generated
27 during the public hearings.

28
29 Comments received on the Revised Draft HRA-EIS as well as the transcripts from the
30 public hearings are contained in a Final HCP EIS Comment Response Document which, in
31 addition to being sent to the EIS mailing list, is available for review in the DOE public reading
32 rooms. The Comment Response Document consists of three parts: 1) a summary of the major
33 topics raised by public comments received and DOE's generalized responses (also included as
34 Appendix F in the Final HCP EIS), 2) specific public comments and DOE's specific responses,
35 and 3) a copy of each public comment received by DOE on the Revised Draft HRA-EIS, and
36 copies of the complete transcripts from each of the four public hearings. Indices are provided in
37 the Comment Response Document to enable commenters to find comment documents and their
38 responses.

39
40 The Final EIS is being transmitted to commenting agencies, made available to the public,
41 and filed with the Environmental Protection Agency (EPA). A DOE decision on proposed actions
42 would not be made earlier than 30 days after EPA publishes a Notice of Availability for the Final
43 EIS in the *Federal Register*. The DOE would record its decision in a publicly available Record of
44 Decision (ROD) published in the *Federal Register*.

45 **1.1 Methodology**

46
47
48 The DOE considered all comments. Equal weight was given to spoken and written
49 comments, to comments received at the public hearings, and to comments received in other
50 ways. The comment period was not intended to solicit "votes" or "endorsements" regarding the
51 proposed action or any alternative analyzed. Rather, comments were reviewed for content and
52 relevance to the environmental analysis contained in the EIS.
53

1 Spoken comments presented at the public hearings were recorded by a court reporter
2 and a verbatim transcript produced (see transcripts at the end of this document). The written
3 comments and transcripts were reviewed and major topics were identified. These major topics
4 are summarized in Section 2.0 of this Comment Response Document, and included as Appendix
5 F in the Final HCP EIS. The summarized topics are followed by DOE's generalized responses.
6

7 The Revised Draft HRA-EIS was published in April 1999 and the Notice of Availability was
8 published in the *Federal Register* on April 23, 1999, initiating the 45-day public comment period
9 that ended on June 7, 1999. Public hearings were held on May 18, May 20, June 2, and June 3 in
10 Portland, Oregon and Richland, Mattawa, and Spokane, Washington; and transcripts of these
11 meetings were produced. Comments were received throughout the public comment period and,
12 to accommodate as many as respondents as possible, comments were accepted after the close
13 of the comment period. The last comment was received on August 3, 1999. The complete
14 transcripts of the public hearings are presented at the end of the document, following copies of
15 the individual comments.
16

17 **1.1.1 Comment Coding System**

18

19 All comments received during the public comment period were initially coded "R," to
20 signify Revised Draft HRA-EIS and keep them separate from the 1996 Draft EIS comments.
21 Written comments were then assigned an "L" for letter, and a number according to the order in
22 which the letter was received by DOE during the public comment period. The DOE received
23 more than 400 letters on the Revised Draft HRA-EIS.
24

25 Written comments turned in at public hearings (as opposed to being mailed) received
26 additional coding, as follows, to indicate at which hearing they were accepted and in what order
27 they were accepted:
28

29 RLP00?	R = Revised Draft L = Letter P = Portland 0? = order in which received
30 RLR00?	R = Revised Draft L = Letter R = Richland 0? = order in which received
31 RLM00?	R = Revised Draft L = Letter M = Mattawa 0? = order in which received
32 RLS00?	R = Revised Draft L = Letter S = Spokane 0? = order in which received
33 STR00?	STR=Save The Reach petitioner number
34 FTS00?	FTS=Farm The Slope petitioner number

35

36 E-mails were coded "RE" (for Revised Draft - E-mail), followed by a number for the order
37 in which they were received. The DOE received 30 E-mails on the Revised Draft HRA-EIS. The
38 DOE also accepted a binder with 922 endorsements for the Wild and Scenic River (with the
39 inclusion of a Wahluke Wildlife Refuge) that was collected for the Department of the Interior's
40 Hanford Reach EIS in 1994. More than 200 request forms for farmland on the Wahluke Slope
41 (also generated for the Hanford Reach EIS in 1994) were accepted in the same spirit. The DOE
42 recorded the names of all the endorsees, but only assigned one comment number to each
43 signature-gathering effort. These comments are listed in the Index as "Save The Reach," (STR)
44 and "Farm The Slope" (FTS).
45

46 If a letter, e-mail, or transcript comment contained more than one comment, then the
47 comment was assigned additional numbers to label the individual comments. For example, letter
48 number RL-318, from the Nez Perce Tribe, contained 62 individual comments that were
49 somewhat out of the normal comment path and which were numbered sequentially as follows:
50 RL318-01, RL318-02, RL318-03, RL318-04, etc. The individual comment documents in the back
51 are generally ordered by when the public hearing was held. For example the comments
52 associated with the first public hearing in Portland are the first comments and the comments
53 associated with the Spokane public hearing are nearer to the back. Letters are listed first,
54 followed by E-mail and transcripts from the public hearings last.

1
2 **1.1.2 Specific Public Comments**
3

4 Some comment letters and transcript statements contained one or more specific
5 comments as opposed to addressing a major topic. Following the “R” number that was assigned
6 to all comments, these specific comments were given specific comment codes, which were
7 recorded and answered with specific answers in sequential order by the DOE. These specific
8 comments are also coded sequentially as to where they appear in a letter or transcript. The
9 responses also indicate whether or not the text of the EIS was corrected or revised because of
10 the comment and, if so, which section of the EIS was revised.
11
12

13 **1.1.3 Finding Your or Someone Else’s Comments**
14

15 Three indexes were generated for your use and are found at the beginning of CR3.0. One
16 complete index is based on your last name and the other complete index is based on the
17 comment number DOE used to track the comments. Once you have looked up your comment
18 letter number you can find your comment responded to generically in CR2.0 below or specifically
19 if your comment contained issues outside of our CR2.0 Major Topics section. If you want to
20 know who had comments like yours or opposing yours you can use the index by comment
21 number to see who made the comment. The third partial index is to assist you in finding out what
22 elected officials, government officials and special interest organizations provided for comment.
23

24 **CR2.0 Major Topics (Summarized) and DOE’s**
25 **Responses**
26

27 The DOE considered all comments received on the Revised Draft HRA-EIS. Many of the
28 comments supported particular alternatives or a combination of alternatives, while others
29 addressed environmental issues, such as the value of wildlife habitat and the importance of
30 preserving habitat for plants and animals (including the diminishing population of salmon).
31 A significant number of comments addressed designating the Hanford Reach as a Wild and
32 Scenic River.
33

34 **2.1 Major Topics**
35

36 The major topics associated with the comments received on the Revised Draft HRA-EIS
37 are presented collectively in this section. Each major topic raised through the comment process
38 (including the number of comments supporting or opposed to a particular subject) is summarized
39 below, followed by DOE’s generalized response to the summarized comments and the numbers
40 (codes) of those who commented. An index of commenters names and numbers is provided at
41 the end of this section.
42

43 **2.1.1 No-Action Alternative**
44

45 Four letters commented on the No-Action Alternative. Two of the three opposed the lack
46 of planning in this alternative. One comment supported this alternative. One commenter
47 supported the No-Action Alternative if Alternative Three was not selected. (Total No-Action
48 Alternative = 4). RL075, RL291, RL322, RTM015
49

50 **DOE’s Response:** The No-Action Alternative does not provide for overall planning at the Hanford
51 Site. The DOE is required, under 42 USC 7274k (Public Law 104-201, Section 3153, *National*
52 *Defense Authorization Act for Fiscal Year 1997*), to develop a future-use plan for the Hanford Site.

1 The DOE policy is to support critical DOE missions, stimulate the economy, and protect the
2 environment. This land-use plan provides a means for coordinating planning and plan
3 implementation with Tribal governments and local jurisdictions, as well as facilitating site and
4 infrastructure transition and privatization activities.

5 6 **2.1.2 DOE's Preferred Alternative**

7
8 Numerous people offered comment on the DOE's Preferred Alternative in the Revised
9 Draft HRA-EIS, with 27 letters in favor of the alternative, and 6 opposed. Many of the supporting
10 letters favored some modification of the alternative to further protect the environment, while those
11 opposing this alternative did so because of lack of economic development (specifically in Grant
12 County), and putting the Wahluke Slope under Federal control. Two of these specifically
13 expressed support of the B Reactor museum. Several expressed that this was the most
14 balanced of the alternatives, providing both development and protection. (Total DOE's Preferred
15 Alternative = 33). RE028, RL024, RL025, RL032, RL039, RL098, RL106, RL120, RL121, RL181,
16 RL205, RL228, RL244, RL291, RL306, RL319, RL322, RL361, RL381, RL440, RL445, RLM002,
17 RLR002, RLR004, RTM008, RTM010, RTM011, RTP011, RTR001, RTR014, RTR021, RTS003,
18 RTS010

19
20 **DOE's Response:** The DOE has modified its Preferred Alternative in the Final HCP EIS in
21 response to these comments. The DOE believes that its new modified Preferred Alternative
22 gives the same balanced approach to future land development and protection of the environment
23 as did the DOE's Preferred Alternative in the Revised Draft HRA-EIS, while supporting the DOE
24 missions of Environmental Management (otherwise known as the "cleanup mission") and
25 science and technology at the Hanford Site. The B Reactor museum is retained in DOE's
26 Preferred Alternative in the Final HCP EIS. This alternative supports economic development on a
27 regional level, and protects the environment by placing a large portion of the Hanford Site under
28 management of the U.S. Fish and Wildlife Service (USFWS) as an overlay refuge.

29 30 **2.1.3 Alternative One**

31
32 Alternative One was the subject of 15 letters, with 14 in favor of this alternative and
33 1 opposed. Those in favor were particularly interested in the emphasis on preservation and the
34 additional protection that it provides for high value or sensitive ecological areas on the Hanford
35 Site, and the prohibition against agriculture, mining, grazing, and intensive recreational use that
36 would compromise the ecological and wildlife values presented. They felt the DOE's Preferred
37 Alternative as presented in the Revised Draft HRA-EIS did not go far enough in furthering this
38 goal. A desire to further protect the unique shrub-steppe habitat was also expressed. The
39 opposing letter expressed the need for some economic development, in addition to some
40 environmental protection. (Total Alternative One = 15). RL003, RL222, RL282, RL283, RL291,
41 RL322, RL340, RL352, RL439, RL445, RTP001, RTP011, RTR014, RTR015, RTR018

42
43 **DOE's Response:** While Alternative One does meet the goal of environmental protection, it
44 does not fulfill all of DOE's missions. These include planning for continuation of the primary
45 missions of the site and planning for future economic development. In response to public
46 comment, DOE has eliminated grazing and increased the area of preservation in its Preferred
47 Alternative in the Final HCP-EIS, while allowing industrial development on land used for, or
48 adjacent to, land already used for industrial-type functions. This supports the DOE mission of
49 Science and Technology. Mining areas are needed for the primary mission of the site, which is
50 Environmental Management (otherwise known as the "cleanup mission"). To the extent that a
51 significant portion of the Hanford Site can be shared with these two primary missions, these
52 areas would be placed under management of the USFWS, to be managed as an overlay wildlife
53 refuge.

1 **2.1.4 Alternative Two**

2
3 Alternative Two was supported by 47 commenters, with 2 opposing the alternative. The
4 primary issue expressed in the supporting comments was the additional protection given to the
5 environment, particularly that afforded to the high value ecological areas and natural and sensitive
6 lands on the Hanford Site. Some commenters expressed the desire for even more protection of
7 the environment, citing this alternative as the one closest to total preservation and restoration of
8 the site. One commenter was supporting this alternative also because of the alternative's
9 support for the B Reactor museum. The two opposing commenters cited the lack of any areas
10 for economic development. (Total Alternative Two = 49). RE013, RL119, RL154, RL159, RL185,
11 RL226, RL230, RL264, RL270, RL283, RL286, RL287, RL288, RL291, RL295, RL296, RL309,
12 RL310, RL311, RL312, RL322, RL331, RL338, RL339, RL344, RL346, RL347, RL356, RL358,
13 RL445, RLS002, RLS003, RLS004, RTP007, RTP008, RTP013, OR014, RTR019, RTS013,
14 RTS016, RTS018, RTS002, RTS003, RTS004, S008, RTS009, RTS020, RTS022, RTS025
15

16 **DOE's Response:** While Alternative Two does meet the goal of environmental protection, it
17 does not meet DOE's desires. These include planning for continuation of the primary missions of
18 the site, and planning for future economic development. In response to public comment, DOE
19 has eliminated grazing and increased the area of preservation in its Preferred Alternative in the
20 Final HCP-EIS, while allowing industrial development on land used for, or adjacent to, land
21 already used for industrial-type functions. This supports the DOE mission of science and
22 technology. Mining areas are needed for the primary mission of the site, which is Environmental
23 Management (otherwise known as the "cleanup mission"). To the extent that a significant portion
24 of the Hanford Site can be shared with these two primary missions, these areas would be placed
25 under management of the USFWS, to be managed as an overlay wildlife refuge.
26

27 **2.1.5 Alternative Three**

28
29 Alternative Three was discussed by 69 commenters, with 12 in opposition to the
30 alternative and 57 in favor. Commenters who supported this alternative cited the need for
31 economic development of the land in Grant County (by turning the land over to farming). These
32 commenters felt that to be fair, the land should be given back to the farmers from whom it was
33 taken to create the Hanford Site in the 1940s. A comment was also made that the property tax
34 that would have been collected by the county would have gone into schools for children. These
35 commenters believed that Alternative Three supports environmental protection goals, and is
36 balanced between environmental protection and economic development. They supported
37 Alternative Three as the alternative which best represented the Wahuake 2000 Plan. Those
38 opposed to Alternative Three expressed the need for protection of the shrub-steppe habitat, and
39 the concern that irrigation would undermine the White Bluffs. (Total Alternative Three = 69).
40 RE028, RL100, RL120, RL131, RL200, RL220, RL222, RL258, RL285, RL291, RL297, RL298,
41 RL301, RL305, RL307, RL314, RL322, RL329, RL330, RL332, RL333, RL335, RL336, RL337,
42 RL340, RL341, RL345, RL348, RL349, RL350, RL351, RL354, RL358, RL372, RL373, RL374,
43 RL375, RL381, RL384, RL436, RL437, RL441, RL442, RL447, RLM003, RTM001, RTM002,
44 RTM003, RTM004, RTM005, RTM006, RTM007, RTM009, RTM011, RTM012, RTM014, RTM015,
45 RTM016, RTM017, RTM019, RTM020, RTM021, RTP007, RTP008, RTP011, RTP013, RTR014,
46 RTS001, RTS005
47

48 **DOE's Response:** While Alternative Three does have some aspects of balance, there is no
49 area set aside that is large enough to support DOE's Science and Technology Mission which
50 includes site stewardship. Alternative Three does support DOE's mission to provide economic
51 growth, and provides for the current and future missions of DOE on the Hanford Site. In the
52 DOE's Preferred Alternative in the Final HCP-EIS, there is a balance of development and
53 environmental protection. In a regional context, the area is served by both land area for economic

1 development and future missions, and by protecting a large area of shrub-steppe habitat that
2 supports many wildlife species, and provides an outdoor lifestyle.

3 4 **2.1.6 Alternative Four**

5
6 Seven comments were received regarding Alternative Four. Five were in favor, and two
7 were against this alternative. The commenters opposing Alternative Four expressed concern that
8 there was no economic development allowed, while those in support cited either the necessity of
9 using the McGee Ranch silt in the cleanup effort as a modification, or support for the large
10 amount of preservation in this alternative. (Total Alternative Four = 7). RL270, RL291, RL322,
11 RL438, RTP011, RTS003, RTS012

12
13 **DOE's Response:** While Alternative Four does meet the goal of environmental protection, it
14 does not meet DOE's desires. These include planning for continuation of the primary missions of
15 the site and planning for future economic development. In response to public comment, DOE
16 has eliminated grazing and increased the area of preservation in its Preferred Alternative in the
17 Final HCP-EIS, while allowing industrial development on land used for, or adjacent to, land
18 already used for industrial-type functions. This supports the DOE mission of science and
19 technology. Mining areas are needed for the primary mission of the site, which is Environmental
20 Management (otherwise known as the "cleanup mission"). To the extent that a significant portion
21 of the Hanford Site can be shared with these two primary missions, these areas would be placed
22 under management of the USFWS, to be managed as an overlay wildlife refuge.

23 24 **2.1.7 National Wildlife Refuge/DOE's Preferred Alternative**

25
26 More than 300 commenters wrote concerning the DOE's Preferred Alternative, with the
27 modification that a National Wildlife Refuge be created/expanded for additional protection of the
28 environment. Six commenters were against this combination, citing as their reasons the
29 USFWS's lack of adequate resources to properly manage the land, and the DOE's ignoring the
30 previous use in farming and future economic development. (Total Refuge/Preferred Alternative =
31 306). RE001, RE002, RE003, RE004, RE006, RE007, RE009, RE010, RE014, RE015, RE017,
32 RE019, RE021, RE026, RE029, RL002, RL005, RL006, RL007, RL008, RL009, RL010, RL011,
33 RL012, RL013, RL014, RL015, RL016, RL017, RL018, RL019, RL020, RL021, RL022, RL023,
34 RL026, RL027, RL028, RL029, RL030, RL033, RL034, RL035, RL036, RL037, RL040, RL041,
35 RL042, RL043, RL044, RL045, RL046, RL048, RL049, RL051, RL052, RL053, RL055, RL057,
36 RL058, RL059, RL060, RL062, RL064, RL065, RL066, RL067, RL068, RL069, RL071, RL072,
37 RL074, RL076, RL077, RL078, RL079, RL080, RL081, RL082, RL083, RL084, RL085, RL086,
38 RL087, RL089, RL090, RL091, RL092, RL093, RL094, RL095, RL096, RL099, RL100, RL101,
39 RL102, RL103, RL104, RL105, RL107, RL109, RL110, RL111, RL112, RL114, RL115, RL122,
40 RL123, RL124, RL125, RL127, RL128, RL129, RL130, RL132, RL133, RL134, RL135, RL136,
41 RL137, RL138, RL139, RL140, RL141, RL142, RL145, RL148, RL149, RL150, RL151, RL152,
42 RL153, RL156, RL157, RL158, RL160, RL161, RL162, RL163, RL164, RL165, RL167, RL168,
43 RL170, RL172, RL173, RL174, RL175, RL177, RL179, RL180, RL183, RL184, RL186, RL187,
44 RL188, RL189, RL190, RL191, RL192, RL193, RL194, RL195, RL196, RL197, RL198, RL203,
45 RL204, RL207, RL208, RL209, RL211, RL213, RL214, RL215, RL216, RL217, RL218, RL219,
46 RL220, RL223, RL224, RL225, RL227, RL228, RL229, RL231, RL236, RL238, RL240, RL241,
47 RL242, RL243, RL245, RL246, RL247, RL248, RL249, RL252, RL253, RL254, RL255, RL256,
48 RL257, RL261, RL262, RL266, RL267, RL268, RL269, RL271, RL272, RL273, RL274, RL275,
49 RL276, RL277, RL278, RL279, RL280, RL281, RL288, RL289, RL291, RL294, RL300, RL302,
50 RL314, RL315, RL316, RL320, RL321, RL323, RL326, RL327, RL340, RL342, RL352, RL353,
51 RL355, RL359, RL360, RL362, RL363, RL364, RL365, RL366, RL367, RL368, RL369, RL370,
52 RL376, RL377, RL378, RL379, RL380, RL382, RL383, RL443, RL444, RL445, RL448, RL450,
53 RL451, RLR001, RLR003, RLR005, RLR006, RLS005, RTM001, RTM004, RTM005, RTM007,
54 RTM010, RTP004, RTP006, RTP011, RTP012, RTR002, RTR005, RTR006, RTR007, RTR008,

1 RTR009, RTR010, RTR011, RTR012, RTR013, RTR014, RTR016, RTR019, RTR024, RTR026,
2 RTS001, RTS002, RTS003, RTS006, RTS007, RTS009, RTS014, RTS015, RTS016, RTS018,
3 RTS019, RTS020, RTS024
4

5 **DOE's Response:** The DOE has proposed a Preferred Alternative in the Final HCP-EIS which
6 embraces this combination of economic development, future missions, and environmental
7 protection. The USFWS would be given the responsibility to manage the Wahluke Slope, the
8 Hanford Reach (including the islands outside of Benton County), McGee Ranch, the riverlands,
9 and the Arid Lands Ecology (ALE) Reserve as an overlay wildlife refuge, while DOE retains
10 ownership of the land.

11 **2.1.8 Other Combinations**

12
13
14 More than 100 comments expressed concern or support for parts of alternatives or
15 additional alternatives. A few commenters submitted alternative maps they had made
16 themselves for DOE's consideration. Some commenters addressed specifically the issue of
17 local versus Federal control. A few supported an extension to the public comment period. Two
18 commenters suggested that additional mapping be done to better represent the wildlife population
19 picture. Others suggested that cleanup, not planning, be the focus of the mission at the Hanford
20 Site. These "other combinations" comments are summarized below. (Total Other Combo =
21 118). RE004, RE005, RE008, RE012, RE015, RE016, RE020, RE022, RE023, RE024, RE025,
22 RE027, RE030, RL001, RL031, RL038, RL047, RL054, RL056, RL070, RL073, RL097, RL108,
23 RL117, RL118, RL143, RL144, RL152, RL166, RL169, RL176, RL181, RL182, RL197, RL199,
24 RL200, RL201, RL202, RL205, RL206, RL210, RL226, RL230, RL232, RL234, RL235, RL237,
25 RL239, RL240, RL241, RL248, RL249, RL251, RL259, RL260, RL263, RL270, RL282, RL283,
26 RL284, RL285, RL289, RL290, RL297, RL298, RL299, RL301, RL303, RL304, RL305, RL306,
27 RL308, RL309, RL311, RL313, RL314, RL317, RL318, RL319, RL321, RL322, RL325, RL328,
28 RL329, RL330, RL332, RL333, RL334, RL335, RL336, RL337, RL341, RL344, RL345, RL347,
29 RL349, RL350, RL351, RL356, RL357, RL358, RL361, RL371, RL373, RL381, RL384, RLM001,
30 RLM002, RLP001, RLS001, RLS004, RTM003, RTM018, RTM021, RTP004, RTP006, RTP014,
31 RTR009
32

33 **Local Control vs. Federal Control.** Many commenters were concerned about the issue of local
34 control versus Federal control of the land that currently comprises the Hanford Site. Overall, 65
35 commenters cited this issue, with 37 preferring Federal control and 28 preferring local control.
36

37 **DOE's Response:** The Federal government would likely retain control of the entire Hanford Site
38 for the next 50 years, during which time it would be managed by a Federal agency. The DOE has
39 proposed that the USFWS manage a large portion of the Hanford Site as an overlay wildlife
40 refuge, while the current ownership remains under Federal control. Therefore, the decision being
41 made at this time is not whether the Federal government is relinquishing ownership of the land,
42 but instead, the decision of how to manage the land until such time that the land is considered
43 surplus.
44

45 **Extension to the Public Comment Period.** Three commenters requested a longer comment
46 period.
47

48 **DOE's Response:** The DOE carefully considered the appropriate comment period length and
49 came to the decision that the NEPA-required 45 days was adequate. This decision was based
50 on several factors. These include the extended public comment period for the original Draft EIS
51 in 1996, and the fact that this is a revised draft of a descoped document. From the time the first
52 draft was issued in August 1996, to April 1999, extensive work was done with the participation of
53 the nine cooperating agencies to prepare a Revised Draft EIS that demonstrated many

1 perspectives of the land-use decision at the Hanford Site. The alternatives developed
2 encompassed the values and goals of many diverse groups within the region.

3
4 **Prioritizing Cleanup.** Six commenters urged DOE to keep cleanup efforts as its top priority, and
5 not allow land-use planning questions to delay any of the cleanup work.

6
7 **DOE's Response:** The DOE recognizes the cleanup work at Hanford as its primary mission
8 and it is that cleanup mission that is the reason to implement a land-use plan which does not
9 address individual cleanup sites, but looks at the entire Hanford Site instead.

10
11 **Customized Alternatives.** Approximately 100 letters cited support for parts of alternatives, or
12 the comment writer's own alternative. By an overwhelming majority, the support for more
13 preservation was expressed, ranging from more protection of the entire Hanford Site, to support
14 for additional wildlife refuge land. The commenters supporting local control cited the need for
15 agriculture on the Wahluke Slope.

16
17 **DOE's Response:** The DOE has modified its Preferred Alternative in the Final HCP-EIS in
18 response to these comments. The new Preferred Alternative embraces additional wildlife refuge
19 acreage, yet retains economic development, planning for potential future site missions, and
20 recreational opportunities on the Hanford Site.

21
22 **Wildlife Mapping.** Two commenters suggested that additional wildlife mapping be done to
23 several of the maps in the Revised Draft HRA-EIS, to more accurately reflect the Hanford Site's
24 current wildlife populations.

25
26 **DOE's Response:** The maps (figures) included in the Final HCP-EIS have been labeled with the
27 caveat that any wildlife population map cannot be completely accurate, since nesting and
28 burrowing sites vary from season to season and year to year.

29
30 **Wahluke 2000 Plan.** Ten commenters supported the Wahluke 2000 Plan as an alternative that
31 was not considered by the Revised Draft HRA-EIS. These commenters expressed concern that
32 even the land use described in Alternative Three was not as balanced as the Wahluke 2000 Plan.
33 The commenters also cited that the Wahluke 2000 Plan had already gone through a public
34 process.

35
36 **DOE's Response:** The DOE worked with the Grant and Franklin County Planning Departments
37 as cooperating agencies on preparation of the Revised Draft HRA-EIS and, subsequently, on
38 preparation of this Final HCP EIS. The basis for the Wahluke Slope planning was the Wahluke
39 2000 Plan, as it was sent to Mr. Ron Izatt, then Director of the Environmental Restoration Division
40 for the Department of Energy Richland Operations Office, on November 18, 1992, from Mr. Mark
41 Hedman, representing the Wahluke 2000 Committee. The only difference between the map
42 submitted then, and the map presented in Alternative Three of the Revised Draft HRA-EIS is the
43 inclusion of wetlands protection as required by state and Federal regulations.

44 45 **2.1.9 Preservation**

46
47 Several commenters expressed their support for preservation of the Hanford Site. Fifty-
48 eight letters supported preservation in some aspect, although the amount of preservation cited
49 varied from the addition of the 200 West Area sagebrush, to preservation of the entire Hanford
50 Site. Many cited the Hanford Reach, the creation of a National Wildlife Refuge, McGee Ranch,
51 May Junction, the islands, the LIGO land (when LIGO is complete), Gable Mountain, Gable Butte,
52 and the sand dunes. Reasons cited were historical, ecological, cultural, biological, and
53 economic. Some commenters thought there was enough preservation already. (Total
54 Preservation = 58). RE018, RE020, RL004, RL016, RL029, RL040, RL050, RL061, RL063,

1 RL074, RL088, RL102, RL113, RL116, RL119, RL123, RL126, RL146, RL171, RL178, RL204,
2 RL206, RL212, RL243, RL250, RL265, RL282, RL283, RL288, RL289, RL291, RL299, RL302,
3 RL322, RL326, RL355, RL358, RL360, RL367, RL439, RL440, RL443, RL445, RLR001,
4 RLR003, RLR004, RTP005, RTP012, RTR015, RTR017, RTR018, RTR021, RTR022, RTR023,
5 RTR025, RTS008, RTS010, RTS019
6

7 **DOE's Response:** It is because of the need to protect the environment (e.g., meeting DOE's
8 policy as a Natural Resource Trustee), that acreage for preservation was considered a high
9 priority. Many of the plants and animals on the Hanford Site need large expanses of land to
10 survive. The DOE's Preferred Alternative in the Final HCP-EIS protects and preserves the
11 environment by placing a large portion of the Hanford Site under management of the USFWS as
12 an overlay wildlife refuge.
13

14 **2.1.10 Conservation (Mining)** 15

16 Of the 149 commenters expressing a view on Conservation (Mining), only 11 felt that no
17 mining at all should be allowed on the Hanford Site. The overwhelming majority felt that some
18 mining could be allowed but only for the necessary materials for the cleanup of the Hanford Site.
19 Some suggested that mining areas should be reclaimed and transferred into the Refuge after the
20 cleanup mission. One commenter wanted the definition of mining in the Final HCP EIS to state
21 that no removal of ore bodies or extraction of precious minerals would be included in the mining
22 activity. Ten letters described specific areas that should not be mined (primarily the ALE
23 Reserve), while one commenter cited the need for McGee Ranch silt specifically for the cleanup
24 program. (Total Conservation [Mining] = 149). RE006, RE007, RE009, RE010, RE014, RE017,
25 RE019, RE020, RE021, RE026, RL002, RL009, RL014, RL027, RL042, RL051, RL068, RL076,
26 RL077, RL085, RL086, RL092, RL095, RL099, RL100, RL103, RL107, RL112, RL114, RL115,
27 RL120, RL121, RL124, RL125, RL136, RL139, RL141, RL148, RL149, RL154, RL155, RL162,
28 RL167, RL170, RL172, RL173, RL174, RL179, RL180, RL184, RL185, RL186, RL187, RL188,
29 RL189, RL190, RL191, RL192, RL196, RL197, RL203, RL206, RL207, RL213, RL217, RL220,
30 RL222, RL224, RL225, RL226, RL229, RL230, RL236, RL238, RL239, RL242, RL243, RL249,
31 RL252, RL253, RL254, RL255, RL256, RL261, RL262, RL266, RL271, RL273, RL274, RL275,
32 RL277, RL279, RL280, RL281, RL282, RL283, RL289, RL294, RL309, RL314, RL320, RL326,
33 RL327, RL338, RL339, RL340, RL342, RL343, RL344, RL346, RL355, RL360, RL362, RL366,
34 RL368, RL371, RL376, RL379, RL438, RL443, RL446, RL448, RL450, RL451, RLR003,
35 RLR004, RLR005, RLR006, RTP005, RTP006, RTP007, RTP008, RTP011, RTP012, RTR002,
36 RTR005, RTR006, RTR008, RTR012, RTR016, RTR019, RTR022, RTS002, RTS010, RTS013,
37 RTS016, RTS017, RTS018, RTS019
38

39 **DOE's Response:** The total Conservation acreage (Conservation [Mining and Grazing] and
40 Conservation [Mining]) in the DOE's Preferred Alternative is approximately the same in the Final
41 HCP-EIS as it was in the Revised Draft HRA-EIS. However, in response to public comment, the
42 definition of mining has been modified to clarify what type of mining might be allowed. The new
43 definition specifies that mining on the Hanford Site must first undergo a permit application
44 process to determine need, and that only governmental mining would be allowed. The DOE
45 needs mineral resources to adequately perform the cleanup mission, and the State of
46 Washington needs mining capability to maintain the state highway that runs through the Hanford
47 Site. DOE has just converted its first gravel pit near the river into a wetland as a reclamation
48 project and intends to complete some type of reclamation when finished at the major mining
49 areas. No commercial mining would be allowed on the Hanford Site. Big Bend Alberta Mining
50 Company, which currently holds mining rights on about 518 ha (1,280 ac) on the ALE Reserve, is
51 not under the control of DOE.

1
2 **2.1.11 Conservation (Mining and Grazing)**
3

4 More than 200 commenters were against allowing any commercial grazing on the Hanford
5 Site. Many commenters cited grazing as being incompatible with wildlife protection. One
6 commenter specifically mentioned the adverse impact on the elk population if fences were put up
7 to contain livestock. The spreading of noxious weeds was also attributed to livestock grazing,
8 because hoofs tear up the delicate ground cover habitat. There was a concern for possible
9 plutonium contamination, and it was expressed that livestock grazed on the Hanford Site would
10 be bad perceptually for all of Washington State agriculture. Three commenters supported limited
11 grazing, or supported local control instead of this being a Federal decision. (Total Conservation
12 [Mining and Grazing] = 240). RE006, RE007, RE009, RE010, RE014, RE017, RE019, RE020,
13 RE021, RE023, RE026, RL002, RL004, RL005, RL006, RL007, RL008, RL009, RL012, RL013,
14 RL014, RL015, RL016, RL017, RL018, RL019, RL020, RL021, RL023, RL026, RL027, RL028,
15 RL029, RL032, RL034, RL036, RL037, RL038, RL039, RL040, RL041, RL042, RL043, RL045,
16 RL049, RL051, RL055, RL057, RL058, RL059, RL060, RL062, RL064, RL065, RL067, RL068,
17 RL072, RL074, RL076, RL077, RL084, RL085, RL086, RL087, RL092, RL095, RL099, RL100,
18 RL101, RL103, RL107, RL112, RL114, RL115, RL119, RL120, RL121, RL124, RL125, RL136,
19 RL139, RL140, RL141, RL145, RL148, RL149, RL153, RL154, RL157, RL158, RL161, RL163,
20 RL164, RL165, RL167, RL168, RL170, RL172, RL173, RL174, RL175, RL176, RL177, RL178,
21 RL179, RL180, RL181, RL184, RL185, RL186, RL187, RL188, RL189, RL190, RL191, RL192,
22 RL196, RL197, RL198, RL203, RL204, RL206, RL207, RL208, RL210, RL212, RL213, RL217,
23 RL218, RL219, RL220, RL224, RL225, RL226, RL227, RL229, RL230, RL236, RL238, RL239,
24 RL242, RL243, RL249, RL252, RL253, RL254, RL255, RL256, RL261, RL262, RL266, RL267,
25 RL268, RL269, RL271, RL273, RL274, RL275, RL277, RL279, RL280, RL281, RL282, RL283,
26 RL288, RL289, RL292, RL293, RL294, RL296, RL302, RL309, RL312, RL314, RL320, RL326,
27 RL327, RL338, RL339, RL340, RL342, RL343, RL344, RL346, RL355, RL356, RL360, RL362,
28 RL366, RL368, RL369, RL371, RL376, RL379, RL383, RL438, RL439, RL443, RL445, RL448,
29 RL449, RL450, RL451, RLR001, RLR003, RLR004, RLR005, RLR006, RLS002, RLS005,
30 RTP004, RTP005, RTP006, RTP007, RTP008, RTP010, RTP011, RTP012, RTP013, RTR002,
31 RTR003, RTR004, RTR005, RTR006, RTR007, RTR008, RTR010, RTR011, RTR012, RTR014,
32 RTR016, RTR019, RTR022, RTS002, RTS010, RTS013, RTS016, RTS017, RTS018, RTS019
33

34 **DOE's Response:** In response to the strong public sentiment on this issue, DOE has eliminated
35 grazing from its Preferred Alternative in the Final HCP-EIS. In doing so, DOE considered the
36 effects of grazing on the wildlife habitat, including the potential for the spread of noxious weeds
37 when livestock hooves damage the ground cover. The land-use definition of Conservation
38 (Mining and Grazing) was included in DOE's Preferred Alternative in the Revised Draft HRA-EIS
39 to accommodate a grazing permit granted by the State of Washington for the Wahluke State
40 Wildlife Recreation Area. The state allowed this permit to expire on December 31, 1998.
41

42 **2.1.12 Low-Intensity Recreation**
43

44 Twenty-five letters addressed Low-Intensity Recreation on the Hanford Site. Eight
45 commenters supported boat launches. Four of these supported a boat launch only at Vernita and
46 not at White Bluffs, while four supported a boat launch at both locations (although one stated the
47 boat launch at White Bluffs should be moved downstream of the White Bluffs townsite). Seven
48 commenters opposed a boat launch at White Bluffs, citing the need to minimize damage to the
49 bluffs. Two commenters opposed recreation of any type on the Hanford Site. Several expressed
50 the view that only non-motorized vehicles or recreation be allowed on constructed trails. Several
51 others supported access for limited recreation citing, as examples, camp sites for paddlers and
52 access for kayakers and rafters. (Total Low-Intensity Recreation = 25). RL104, RL120, RL154,
53 RL159, RL181, RL185, RL204, RL206, RL222, RL225, RL230, RL242, RL243, RL249, RL296,
54 RL314, RL346, RL355, RL360, RL438, RL440, RLR004, RTP010, RTR006, RTS019

1 **DOE's Response:** When the cooperating agencies looked at expanding recreational
2 opportunities along the Columbia River (e.g., boat launches at Vernita and the White Bluffs), two
3 resources areas – biological and cultural – were always scrutinized. The White Bluffs boat
4 launch has cultural significance that would be best preserved by continued operation of the old
5 ferry launches on both sides of the river. Further, establishing a new boat launch would most
6 likely impact existing tribal cultural resources. The two Hanford avian species that are currently
7 protected under the *Environmental Species Act* (ESA) have been placed in the delisting process
8 and will be removed in one to two years. Those Hanford species left on the ESA are three fishes
9 that could be impacted by installation of a new boat ramp near the Vernita Bridge. This type of
10 balancing between resource protection issues and greater access to those resources is why
11 advice from the Site Planning Advisory Board (SPAB) (see Chapter 6) would be so valuable to
12 DOE.

13 14 **2.1.13 High-Intensity Recreation**

15
16 Thirty-two comments were received regarding High-Intensity Recreation. Twelve were
17 opposed to this land-use designation, while of the twenty in favor, most were in support of the
18 B Reactor museum proposal. One commenter supporting the designation disagreed with closing
19 off recreational opportunities (river access, for example) for 50 years, while another letter
20 expressed support for recreational opportunities in general. One letter expressed the view that no
21 High-Intensity Recreation should be allowed. (Total High-Intensity Recreation = 32). RL042,
22 RL147, RL159, RL170, RL179, RL185, RL204, RL206, RL221, RL225, RL242, RL243, RL249,
23 RL266, RL282, RL314, RL339, RL342, RL344, RL346, RL355, RL440, RL445, RTM009,
24 RTP003, RTP005, RTP007, RTP010, RTP011, RTR001, RTR006, RTS019, RE028, RL046,
25 RL185, RL201, RL204, RL206, RL230, RL288, RL296, RL314, RL343, RL347, RL360, RL445,
26 RTR012

27
28 **DOE's Response:** One of the assumptions DOE used in developing its Preferred Alternative
29 was that the public would support preservation of the Manhattan Project's historical legacy
30 consistent with the B Reactor Museum Association's proposal. The public validated this
31 assumption by supporting the B Reactor Museum proposal during the public comment period on
32 the Revised Draft HRA-EIS. The B Reactor would be designated High-Intensity Recreation to
33 allow tourism of the Federally registered landmark. The High-Intensity Recreation area near
34 Vernita Bridge (where the current Washington State rest stop is located) would be expanded
35 across State Highway 240 and to the south to include a boat ramp and other visitor-serving
36 facilities. Because of DOE Environmental Restoration operational concerns, a boat dock at the
37 B Reactor would not be permitted until the Environmental Restoration activities were completed.
38 However, upon completion of the ER efforts, the B Reactor Museum Association could apply for
39 the appropriate permits to construct a boat dock. Rail access to the site would not be hindered
40 by DOE's Preferred Alternative because the extant rail lines are considered pre-existing
41 nonconformances.

42 43 **2.1.14 Research and Development**

44
45 Letters received on this land-use designation cited the need for restricting or prohibiting
46 Research and Development. Two letters expressed the view that this land use would be too
47 costly and too speculative at this time. Suggestions to limit Research and Development to the
48 300 Area, LIGO, and FFTF were made. One commenter discussed the need for the EIS to
49 distinguish between large-scale R&D and smaller scale, time-limited activities that would, by their
50 nature, consume less resources. (Total Research and Development = 15). RE028, RL046,
51 RL185, RL201, RL204, RL206, RL230, RL288, RL296, RL343, RL347, RL360, RL445, RTR012

52
53 **DOE's Response:** The DOE considered the need for Research and Development land use on
54 the Hanford Site and included in its Preferred Alternative in the Final HCP EIS an appropriate

1 amount of acreage to provide for any potential future missions for the Hanford Site as well as
2 economic development. The Research and Development land-use areas in the HCP EIS are
3 adjacent to, or on areas currently used for activities similar to, or the same as potential future
4 uses. This land-use designation reflects the DOE mission of science and technology as well as
5 economic development.

6 7 **2.1.15 Industrial**

8
9 Thirty-five commenters addressed the Industrial land-use designation. Some
10 recommended limiting industrial development to the 300 Area and 1100 Area, or areas near the
11 Tri-Cities, which could support the industry with infrastructure. One commenter suggested that a
12 corridor from Energy Northwest (formerly WPPSS) south to the 300 Area. Some expressed that
13 timing was important, that cleanup proceed first, then development, and that existing high-density
14 industrial areas should be filled up first, before expanding land use. One commenter made it
15 clear that industrial development occur only where a documented need exists. A few commenters
16 were against any further industrial development on the Hanford Site. (Total Industrial = 35).
17 RE023, RL174, RL179, RL181, RL204, RL206, RL225, RL230, RL233, RL242, RL249, RL288,
18 RL289, RL314, RL319, RL320, RL322, RL326, RL342, RL343, RL344, RL349, RL355, RL358,
19 RL360, RL443, RL445, RLR001, RTM008, RTP001, RTP005, RTR006, RTR010, RTR011,
20 RTR012

21
22 **DOE's Response:** The need for the Industrial land-use designation is to support the DOE
23 missions of science and technology and Environmental Management (i.e., the cleanup mission).
24 The industrial areas would not be developed at the expense of the cleanup mission, in either
25 budget or schedule. The land designated as Industrial would be developed only with a strategy
26 that embraces development along with the infrastructure to support it.

27 28 **2.1.16 Industrial-Exclusive**

29
30 Several commenters stated that the Industrial-Exclusive use area as shown in the
31 Revised Draft Preferred Alternative should be reconfigured to represent what was shown for
32 Industrial-Exclusive in Alternatives One and Two. Specifically, they felt the small western
33 extension of the 200 Areas should be Preservation. (Total Industrial-Exclusive = 9). RL174,
34 RL179, RL204, RL206, RL314, RL343, RL344, RL445, RTR006

35
36 **DOE's Response:** Preservation was only applied if there was some combination of exceptional
37 resource values (e.g., biological, cultural, and edaphic). This approach allowed Preservation to
38 be applied to the saline vernal pools, the sodic soil greasewood community, the sand dune
39 dependent Indian rice grass community, and other location dependent communities. Still, not all
40 areas with exceptional vegetational structure (e.g., the 200 West Area sagebrush stands) are
41 considered appropriate of the Preservation designation. The presence of sagebrush in the 200
42 Areas could interfere with DOE's conducting one of its primary missions and there is no
43 combination of values that would elevate the 200 Area sagebrush into a Preservation designation.

44 45 **2.1.17 Agriculture**

46
47 Over 200 commenters addressed Agriculture as a land use. More than 180 were
48 opposed to any agriculture on the Hanford Site, citing the possible endangering of the health of
49 the Columbia River from irrigation runoff, the potential damage to the White Bluffs from irrigation,
50 the need for preservation of the shrub-steppe habitat for wildlife, and the possibility that agriculture
51 on the Hanford Site would be bad, perceptually, for all Washington State agriculture. The 20
52 letters in support of agriculture cited the need to support world food production, schools (with the
53 resultant taxes), and the rural area in Grant County in need of economic growth. (Total
54 Agriculture = 202). RE004, RE006, RE014, RE017, RE019, RE020, RE021, RE023, RE026,

1 RE029, RL004, RL005, RL006, RL007, RL008, RL012, RL013, RL015, RL016, RL017, RL018,
2 RL019, RL020, RL021, RL023, RL025, RL026, RL028, RL029, RL032, RL034, RL036, RL037,
3 RL038, RL039, RL040, RL041, RL042, RL043, RL044, RL045, RL049, RL055, RL056, RL057,
4 RL058, RL059, RL060, RL062, RL064, RL065, RL067, RL070, RL072, RL074, RL076, RL077,
5 RL084, RL086, RL090, RL092, RL094, RL095, RL099, RL101, RL107, RL112, RL114, RL115,
6 RL117, RL121, RL125, RL131, RL136, RL139, RL140, RL142, RL145, RL148, RL153, RL156,
7 RL157, RL158, RL159, RL161, RL162, RL163, RL164, RL168, RL174, RL175, RL176, RL178,
8 RL179, RL180, RL181, RL182, RL185, RL186, RL187, RL188, RL189, RL190, RL191, RL192,
9 RL194, RL196, RL198, RL206, RL208, RL210, RL212, RL213, RL217, RL218, RL219, RL221,
10 RL223, RL224, RL225, RL227, RL229, RL230, RL236, RL238, RL239, RL242, RL243, RL250,
11 RL252, RL253, RL254, RL255, RL258, RL261, RL266, RL269, RL271, RL280, RL283, RL284,
12 RL289, RL307, RL312, RL314, RL320, RL321, RL326, RL327, RL330, RL339, RL340, RL342,
13 RL343, RL346, RL355, RL356, RL362, RL363, RL369, RL371, RL376, RL379, RL384, RL439,
14 RL451, RLM003, RLR001, RLS005, RTM001, RTM002, RTM004, RTM005, RTM007, RTM009,
15 RTM010, RTM013, RTM015, RTM017, RTM019, RTP003, RTP004, RTP008, RTP011, RTR002,
16 RTR003, RTR004, RTR011, RTR012, RTR013, RTR014, RTR016, RTR018, RTR019, RTR020,
17 RTR024, RTS007, RTS011, RTS013, RTS017, RTS018, RTS019

18
19 **DOE's Response:** In its Preferred Alternative in the Final HCP EIS, DOE would preclude any
20 agriculture on the Hanford Site. In keeping with its policy as a Natural Resource Trustee, DOE
21 has placed entire Wahluke Slope under management of the USFWS as an overlay wildlife refuge.

22 23 24 **2.1.18 Policy**

25
26 Forty-one letters relating to policy were received. Half of these addressed the payment in
27 lieu of taxes (PILT), expressing that future payments should be based on lost opportunity instead
28 of current use, and that these payments are important to providing equal educational opportunity
29 to the children of Grant County. Two commenters wanted to add to the Policy Statement in
30 Chapter 6 regarding protection and preservation of environmental resources. One commenter
31 wanted the *Hanford Strategic Plan* to go out for public review. One commenter wanted it noted
32 that there are groundwater and basaltic problems in the area by the river. One commenter
33 expressed a concern that land-use planning should not be used to drive cleanup standards.
34 Another commenter wanted DOE to remain open to the idea of bartering as a way to reach
35 agreement on land use. A summary of comments received under the "policy" category are listed
36 below. (Total Policy = 41). RL154, RL204, RL233, RL297, RL298, RL301, RL303, RL307,
37 RL329, RL332, RL333, RL335, RL336, RL337, RL350, RL351, RL441, RL445, RL447, RLM003,
38 RTM001, RTM004, RTM005, RTM006, RTM010, RTM011, RTM012, RTM016, RTM017, RTM020,
39 RTP001, RTP002, RTP003, RTP009, RTR012, RTS004, RTS006, RTS009, RTS012, RTS022,
40 RTS023

41
42 **PILT Payments.** Twenty letters were received addressing the payment of PILT to Grant County.
43 Fourteen of these cited the need to base future PILT payments on lost opportunity instead of
44 current land use. The remaining 6 letters cited the need for Grant County to receive PILT and the
45 importance of PILT to schools. One commenter cited the preference for opportunity, instead of
46 entitlement.

47
48 **DOE's Response:** Because DOE has chosen to work with the USFWS to manage the
49 proposed wildlife refuge as an "overlay refuge," DOE would retain land ownership which, in turn,
50 would maximize the PILT payments to the affected counties. (The DOE pays about 10 times
51 what DOI pays.)

52
53 The Grant County Assessor determined the value of developed farmland by computing the
54 average assessed value per acre for personal property, improvements, and land and trees, to

1 arrive at a total average of \$3,091.67. Personal property includes farm machinery and
2 equipment, including above ground irrigation systems. Improvements include the value of
3 farmhouses and farm buildings, including sheds, warehouses, cold storage, etc. Land includes
4 the value of land, plus underground irrigation systems. Trees include the value of orchards,
5 vineyards, etc. In addition, the assumption was made that 33,000 acres, or 94 percent of the
6 irrigable or previously irrigated land under DOE control in Grant County would be developed
7 farmland to arrive at a total estimated taxable value of \$102 million.

8
9 One commenter said he believes there is an inequality since DOE only pays PILT based upon
10 the value of land (\$1,225 an acre for irrigable land) and does not include additional values listed
11 above. This commenter's computation of PILT does not comply with DOE's PILT policies and is
12 not equitable, considering DOE uses very little of the services provided by the County. If the land
13 were transferred, individuals living on and farming the land would require significantly more
14 services by the County, the additional cost of which would probably be more than the additional
15 taxes, collected. The assumption that 33,000 acres would be developed is an aggressive one.
16 The Grant County Assessor has assumed only 27,000 acres would be developed farmland. The
17 same conditions are set forth in signed intergovernmental agreements with Benton and Franklin
18 Counties and PILT is being consistently applied.

19
20 **Continuation of Cleanup.** Five commenters reiterated the need for continuation of the cleanup
21 mission.

22
23 **DOE's Response:** The DOE considers the cleanup mission at Hanford to be its primary
24 mission, and the land-use planning effort is complementary to and not in conflict with that
25 mission. In fact, the land-use plan would facilitate the cleanup mission.

26
27 **Human Health and Safety.** Commenters cited the need to consider human health and safety,
28 since parts of the Hanford Site would be contaminated for a long time, if not forever.

29
30 **DOE's Response:** The DOE has taken into consideration that cleanup would take years to
31 complete to an acceptable level. This land-use plan would enable regulators to set cleanup
32 standards to levels commensurate with the land use planned at each cleanup site.

33
34 **Environmental Justice:** Some commenters stated that DOE did not adequately address the
35 Environmental Justice impact caused by not expanding farming opportunities on the Wahluke
36 Slope to Hispanic agricultural workers.

37
38 **DOE's Response:** On February 11, 1994, the President issued Executive Order 12898
39 (59 Fed. Reg. 7629, 1994), *Federal Actions to Address Environmental Justice in Minority*
40 *Populations and Low-Income Populations*. This Executive Order directs each Federal agency to
41 make environmental justice part of the agency mission. To the greatest extent practicable and
42 permitted by law, Federal agencies must identify and address disproportionately high and
43 adverse human health or environmental effects of their programs, policies, and activities on
44 minority populations and low-income populations.

45
46 As stated in the President's February 11, 1994 memorandum that accompanied the Executive
47 Order, "Each Federal agency shall analyze the environmental effects, including human health,
48 economic, and social effects, of Federal actions, including effects on minority communities and
49 low-income communities, when such analysis is required by NEPA (42 USC Section 4321,
50 et seq.). Mitigation measures outlined or analyzed in an environmental assessment,
51 environmental impact statement, or record of decision, whenever feasible, should address
52 significant and adverse environmental effects of proposed Federal actions on minority
53 communities and low-income communities." The memorandum and Executive Order ensure

1 that minority and low-income communities will have a voice in the development and
2 implementation of any Federal action that might adversely affect those communities.

3
4 In addition, the memorandum and Executive Order indicate that all Federal agencies are to be
5 proactive in identifying and, to the extent practicable, mitigating any potential disproportionately
6 high and adverse impacts on minority and low-income communities that could result from
7 proposed Federal actions.

8
9 In order to implement the provisions of Executive Order 12898, the *U.S. Department of Energy*
10 *Environmental Justice Strategy, Executive Order 12898* (DOE 1995a) was prepared. Guidance
11 provided in this publication, as well as CEQ's *Environmental Justice Guidance under NEPA*
12 (March 1998), and EPA's *Guidance for Incorporating Environmental Justice Concerns in EPA's*
13 *NEPA Compliance Analyses* (April 1998) were used, to the extent practicable, in the Revised
14 Draft HRA-EIS.

15
16 Because the proposed action for the Wahluke Slope is Preservation, there would no impacts to
17 the Hispanic population because no changes would be made to the current use of the lands.
18 Preservation is consistent with the wishes of the two Tribal Nations who served as consulting
19 Tribal governments for this EIS, and who represent the minority and low-income communities
20 who would be most directly affected by the proposed Federal action.

21 **2.1.19 Procedure**

22
23
24 Several letters had comments regarding membership of the Site Planning Advisory Board
25 (SPAB). The SPAB could be established upon adoption of the Comprehensive Land-Use Plan in
26 the HCP EIS Record of Decision. The inclusion of equal seats for: 1) each Tribe as a sovereign
27 nation, 2) regulators, 3) the National Marine Fisheries Service, 4) the National Science
28 Foundation, and 5) the Washington State Department of Ecology; and less seats for the counties
29 were offered by six commenters as improvements to the SPAB membership as described in the
30 Revised Draft HRA-EIS (Chapter 6). Two commenters wanted the name of the document
31 changed to better reflect the emphasis on land-use planning. Several commenters expressed
32 the opinion that the Secretary of Energy's announcement in April 1999 of the Revised Draft's
33 Preferred Alternative prejudiced the outcome. One commenter noted that cultural reviews should
34 be prepared before land use is designated. One commenter would like the DOE to slow down
35 the decision, and one would like to speed up the decision. One commenter noted that all land-
36 use plans must support and preserve natural resources. A more detailed description of these
37 comments, along with DOE's responses, are listed below. (Total Procedure = 11). RL124,
38 RL154, RL204, RL290, RL292, RL293, RL446, RTM018, RTP013, RTP003, RTS004

39
40 **SPAB Membership.** Commenters cited concerns regarding membership of the SPAB.

41
42 **DOE's Response:** As presented in the Final HCP EIS, the makeup of the SPAB would be the
43 nine cooperating agencies that participated in the preparation of the Revised Draft HRA-EIS and
44 development of the land-use alternatives. However, membership is not necessarily fixed. As an
45 advisory board, the board would support DOE by reviewing and providing advice for Area
46 Management Plans and Resource Management Plans, providing policy advice to DOE in areas
47 involving coordination of land and resource management, and advising DOE during consideration
48 of nonconforming proposals within the boundary of the Hanford Site.

49
50 **Predecisional Announcement.** Some commenters felt the outcome of the public review had
51 been prejudiced by the Secretary of Energy's announcement in April 1999 of the DOE's Preferred
52 Alternative prior to the document being published and in the hands of the public.

1 **DOE's Response:** The Secretary's announcement is consistent with the NEPA process and
2 consistent with the DOE's Preferred Alternative. The DOE has indicated in previous drafts of the
3 EIS its support for the proposal to expand the wildlife refuge to include the entire Wahluke Slope
4 and management of the Wahluke Slope for Preservation. The Secretary's announcement
5 supported the DOE's Preferred Alternative proposed in the Revised Draft HRA-EIS. Management
6 of the entire Wahluke Slope for Preservation is consistent with the ROD for the DOI Hanford
7 Reach EIS issued in 1996.

8
9 The DOE has both the right and the responsibility under NEPA to identify the agency's Preferred
10 Alternative. Federal NEPA regulations under 40 CFR 1502.14(e) require the Agency to "...identify
11 the agency's preferred alternative or alternatives, if one of more exists, in the draft statement and
12 identify such alternative in the final statement unless another law prohibits the expression of such
13 as preference." The Secretary's announcement is consistent with the Preferred Alternative in the
14 Final HCP EIS.

15
16 The DOE does not believe that the Secretary's announcement has in any way prejudiced the
17 outcome of the HCP EIS or the development of the NEPA ROD. The DOE has repeatedly
18 expressed its support for management of the Wahluke Slope for Preservation, beginning in 1994
19 when the DOE concurred in the Hanford Reach EIS.

20
21 **Name Change:** Commenters wanted a name change for the document.

22
23 **DOE's Response:** During the public review and comment period on the Revised Draft HRA-EIS,
24 DOE solicited public input on a proposed name change for the EIS document to better reflect its
25 purpose. The DOE proposed changing the name from the *Hanford Remedial Action*
26 *Environmental Impact Statement and Comprehensive Land-Use Plan* (HRA-EIS) to the *Hanford*
27 *Comprehensive Land-Use Plan Environmental Impact Statement* (HCP EIS). The public
28 supported this change, and in the Final EIS the name has been changed.

29
30 **Timing of the Decision:** The timing of the decision was commented on, both for speeding it up
31 and slowing it down.

32
33 **DOE's Response:** The DOE has several legal and policy drivers requiring the preparation of a
34 land-use plan. (Please see comment response under "No-Action Alternative").

35
36 **Cultural/Natural Resources Reviews:** Cultural reviews and natural resources should be taken
37 into account when land use is being planned.

38
39 **DOE's Response:** Both cultural reviews and natural resources have been, and would continue
40 to be taken into account when land-use decisions are made. The purpose of the SPAB is to
41 advise the DOE when land-use implementation is being considered.

42 43 **2.1.20 Plan**

44
45 Eight letters addressed the comprehensive land-use plan. One of the commenters cited
46 concern that what appears to be "management by committee" is too risky. Another commenter
47 thanked DOE for keeping the process open. One commenter was glad that Hanford was
48 created, or there would not be all the land there is today available to preserve. One commenter
49 expressed that the time frame for land-use planning should be about seven generations out.
50 Another cited the lack of impacts described from industrial development. Two commenters were
51 concerned that the sensitivity of LIGO to noise and vibration from other activities at Hanford was
52 not adequately addressed. (Total Plan = 8). RL269, RL446, RTM015, RTR009, RTS013,
53 RTS020, RTS025, RTS026

1 **DOE's Response:** The CLUP is meant to be a living document that brings DOE into cooperative
2 planning with the local governments where possible, but also allows DOE to fulfill its Federal
3 missions. To make the CLUP a viable planning tool, DOE has proposed a SPAB that would
4 provide a forum for local governments to discuss their planning intentions and how Hanford might
5 fit in as a regional complex. The DOE's NEPA process suggests that EISs which establish land-
6 use plans be reviewed by the NEPA Compliance Officer for revisions on a five-year schedule. As
7 an advisory board, the SPAB would be able to tackle such issues as:

- 8
- 9 C The extreme sensitivity of the LIGO facilities to noise and vibration created by other
10 activities on the Hanford Site even though such activities may be at large
11 distances from LIGO.
- 12
- 13 C The Energy Northwest lease to continue WNP-2 for power production and also
14 allow for economic reuse of WNP 1 and 4.
- 15
- 16 C The 200 Areas where contaminated areas are also important wildlife habitat.
- 17
- 18 C How economic development should be coordinated, and where PILT payments fit
19 into the economic health of the region.
- 20

21 **2.1.21 Public Involvement**

22

23 The DOE received 65 letters and testimonies related to the public involvement process for
24 the Revised Draft HRA-EIS. Specifically, these included comments on the "opportunity to
25 comment" (33), comments on the multiple public hearings (15), and comments on the quality of
26 the document and the work that went into preparing the document (24). A summary of the
27 comments received under this category is provided below. (Total Public Involvement = 65).
28 RE012, RE013, RE028, RL003, RL006, RL043, RL052, RL054, RL103, RL153, RL154, RL166,
29 RL178, RL179, RL185, RL200, RL204, RL205, RL206, RL225, RL228, RL230, RL234, RL270,
30 RL273, RL281, RL290, RL291, RL292, RL304, RL314, RL318, RL319, RL322, RL328, RL341,
31 RL342, RL344, RL345, RL349, RL355, RL361, RL381, RL443, RL445, RLM001, RTM012,
32 RTP001, RTP002, RTP004, RTP005, RTP006, RTP008, RTP010, RTR004, RTR006, RTR011,
33 RTR012, RTR013, RTR014, RTS009, RTS011, RTS015

34

35 **"Opportunity to Comment."** Commenters thanked DOE for the opportunity to review and
36 comment on the document. All but one commenter was appreciative of the comment process,
37 including the consideration DOE was giving to the comments received, and for listening to the
38 public on this topic. One commenter was discouraged, citing the perception that the decision
39 had already been made.

40

41 **DOE's Response:** The Federal regulations for NEPA, 40 CFR 1500-1508, require DOE to make
42 an EIS available to the public for review and comment. The DOE has considered all comments
43 received on the Revised Draft HRA-EIS, and has made changes to its Preferred Alternative in the
44 Final HCP EIS based on public comments received.

45

46 **Multiple Public Hearings.** Commenters were appreciative of DOE holding public hearings both
47 in Richland, and outside of the Tri-Cities. One commenter pointed out that a hearing is required
48 by NEPA regulations. Commenters in Portland complimented the DOE for going outside
49 Washington State to listen to Oregon residents' concerns regarding "this profound and very
50 important issue." A Mattawa resident cited his appreciation for the DOE going to the location
51 where the issues are closest to the people. One Richland commenter said it was "refreshing" for
52 the DOE to listen.

1 **DOE's Response:** The Federal regulations for NEPA, 40 CFR 1503, require DOE to solicit
2 comments from those persons or organizations who may be interested or affected by the
3 decision.
4

5 **Document Quality/Preparation:** Commenters were complimentary about the quality of the
6 document and the amount of work that went into preparing the document. Citations included: "a
7 lot of progress has been made," "It was a tremendous amount of work. It took years to
8 accomplish," "give the DOE congratulations," "good work," "well researched and
9 comprehensive," "excellent research and enormous staff work," "good job of reaching out to the
10 community," "extensive and excellent qualitative evaluation and comparison," "thoughtful and
11 comprehensive," and "high quality assessment." These comments were directed at DOE and
12 the nine cooperating agencies who prepared the document. Commenters also were pleased that
13 DOE was addressing the land-use issue.
14

15 **DOE's Response:** A first draft of the HRA-EIS was published for public review in August 1996.
16 In response to comments received on that first draft, DOE worked with the cooperating agencies
17 and consulting Tribal governments to establish a framework for the environmental analyses and
18 the proposed CLUP policies and implementing procedures presented in this Final HCP EIS.
19 Substantial agreement was reached among the cooperating agencies and consulting Tribal
20 governments on the development of land-use designations, and on the format for determining the
21 potential environmental impacts associated with the land uses proposed in this EIS.
22

23 **2.1.22 Salmon**

24

25 Several letters commented that the salmon need protection. Fifty-two letters were
26 received, all supporting protection of salmon and salmon habitat, supporting salmon recovery
27 efforts, and expressing concern for the dwindling salmon population, the health of the salmon and
28 the people who eat them, and restoration of the salmon runs. Some recommended that we do
29 everything in our power to protect and preserve the salmon and other anadromous fish. (Salmon
30 total = 52). RE005, RE015, RE017, RE021, RL003, RL014, RL025, RL044, RL063, RL069,
31 RL118, RL122, RL146, RL151, RL156, RL162, RL182, RL194, RL209, RL212, RL222, RL223,
32 RL246, RL251, RL261, RL266, RL268, RL284, RL299, RL321, RL324, RL338, RL347, RL356,
33 RL363, RL378, RLR001, RTP004, RTP007, RTP008, RTP012, RTR014, RTR018, RTS007,
34 RTS008, RTS009, RTS010, RTS012, RTS017, RTS018, RTS019, RTS021
35

36 **DOE's Response:** The Hanford Site is home to some of the region's most unique natural
37 resources. In two years, the salmon will be the only endangered species on the Hanford Site.
38 (The Bald Eagle and the Peregrine Falcon have increased in population enough to be taken off
39 the Endangered Species List.) Salmon prime habitat is in the Columbia River in the Wahluke
40 Slope and along the Hanford Reach. The concern for the erosion of the White Bluffs into the river
41 is the silting of the gravel beds where the salmon spawn. This was a significant factor behind the
42 decision to disallow farming as a land use on the Wahluke Slope in the DOE's Preferred
43 Alternative in the Final HCP EIS.
44

45 **2.1.23 Hanford Reach**

46

47 More than 100 letters were received supporting protection of the Hanford Reach. Most
48 letters cited the critical salmon spawning habitat, as well as the eagles and other wildlife that eat
49 the salmon. Some feel that the future of the entire Northwest depends on the cleanliness of the
50 river. Concern was expressed for the erosion of the White Bluffs, and the effects of orchard
51 growth on the spawning habitat. Although all commenters supported protection of the Reach,
52 three opposed Federal control to achieve that end. One commenter stated that DOE is
53 responsible for contaminating the Reach. (Total Hanford Reach = 109). RE002, RE013, RE015,
54 RE018, RE028, RL031, RL032, RL041, RL042, RL043, RL048, RL052, RL059, RL063, RL074,

1 RL084, RL114, RL116, RL117, RL132, RL133, RL142, RL146, RL154, RL160, RL162, RL177,
2 RL179, RL188, RL191, RL209, RL212, RL214, RL219, RL221, RL235, RL237, RL240, RL241,
3 RL244, RL251, RL262, RL265, RL266, RL268, RL272, RL278, RL281, RL284, RL288, RL291,
4 RL296, RL299, RL303, RL324, RL342, RL344, RL363, RL364, RL366, RL369, RL440, RL448,
5 RL449, RL450, RL451, RLR001, RLR004, RLR006, RTM006, RTM009, RTP001, RTP002,
6 RTP005, RTP006, RTP007, RTP008, RTP011, RTP012, RTR002, RTR004, RTR005, RTR006,
7 RTR008, RTR010, RTR011, RTR013, RTR014, RTR015, RTR016, RTR018, RTR020, RTR022,
8 RTR024, RTR026, RTS001, RTS003, RTS004, RTS007, RTS009, RTS010, RTS011, RTS012,
9 RTS013, RTS016, RTS017, RTS018, RTS019, RTS020

10
11 **DOE's Response:** The Hanford Reach is a valuable national resource, abundant in natural
12 beauty and home to a large biologically diverse wildlife. It is because of the intrinsic value of this
13 free-flowing section of the Columbia River and the area surrounding it that DOE has included the
14 Hanford Reach in the area placed under USFWS management as an overlay wildlife refuge.
15

16 **2.1.24 Tribal Rights**

17
18 Several of the commenters expressed their concern that Tribal rights be honored by
19 DOE. Ten of the twenty-one commenters held firm that all Tribal rights must be supported.
20 Many of the letters also expressed support for the protection of cultural and religious sites from
21 disturbance. One commenter noted that Tribal rights would be protected by local control. One
22 commenter recommended working with the Yakama Indian Nation. One commenter supported
23 modifications to Alternative One to accommodate the needs of the Tribes. One commenter
24 noted that the land need not be given back to farmers since the land was originally stolen from the
25 Wanapum, Yakama, and Nez Perce. One commenter wished DOE had considered an option to
26 deed stewardship back to the Tribes. (Total Tribal Rights = 21). RE023, RL044, RL155, RL159,
27 RL168, RL267, RL291, RL292, RL293, RL354, RL356, RL358, RTP001, RTP002, RTP009,
28 RTP011, RTP013, RTS004, RTS006, RTS011, RTS013
29

30 **DOE's Response:** Tribal governments and DOE agree that the Tribal governments' treaty-
31 reserved right of taking fish at all "usual and accustomed" places applies to the Hanford Reach of
32 the Columbia River where it passes through Hanford, and that treaty rights are inalienable rights
33 exercised by tribal members.
34

35 Nevertheless, Tribal governments and DOE disagree over the applicability to the Hanford Site of
36 Tribal members, treaty-reserved rights to hunt, gather plants, and pasture livestock. Both the
37 Tribal governments and DOE can point to legal justification for their positions in this dispute. As
38 this dispute could take years to resolve, the Tribal governments who worked as consulting
39 agencies and DOE decided not to delay completion and implementation of a comprehensive
40 land-use plan for the Hanford Site while awaiting the resolution of this dispute. Instead, the Tribes
41 and DOE have gone ahead with the land-use planning process while reserving all rights to assert
42 their respective positions regarding treaty rights. Neither the existence of this EIS nor any portion
43 of its contents is intended to have any influence over the resolution of the treaty rights dispute.
44 There are too many instances where DOE and the Tribal governments agree that actions need to
45 be taken to protect Tribal interests where arguing over the legal bases of those interests would be
46 counterproductive to both parties.
47

48 **2.1.25 Wild and Scenic River**

49
50 Of all the commenters addressing a Wild and Scenic River designation for the Columbia
51 River flowing through the Hanford Reach, 37 were in favor of the designation and 6 were
52 opposed. Some of the commenters noted that the designation must be made without delay, and
53 several noted that the river and riverbanks must be protected at all costs. Those opposed cited
54 that such a designation gives no assurance that the area would be managed to meet existing and

1 future local needs, such as water rights. (Total Wild and Scenic = 43). RL119, RL131, RL133,
2 RL134, RL147, RL168, RL182, RL185, RL204, RL206, RL230, RL235, RL240, RL241, RL248,
3 RL268, RL286, RL287, RL289, RL314, RL320, RL321, RL326, RL352, RL356, RL360, RL366,
4 RL440, RLR001, RLR003, RLR004, RTM015, RTP002, RTP003, RTP004, RTR019, RTS001,
5 RTS007, RTS008, RTS016, RTS017, RTS019, RTS024
6

7 **DOE's Response:** The *Wild and Scenic River Act of 1968*, as amended, protects selected
8 national rivers possessing outstanding scenic, recreational, geological, fish and wildlife, historical,
9 cultural, and other similar values. These rivers are to be preserved in a free flowing condition to
10 protect water quality and for other vital national conservation purposes. The Columbia River,
11 along the Hanford Reach, is a 52-mile-long, free-flowing section which is irreplaceable spawning
12 ground for salmon and other anadromous fish. This area, including the banks of the Columbia
13 River, exhibits a unique diversity of plant and animal life, and DOE is committed to protecting the
14 environment along this stretch of the river. However, the designation of the Hanford Reach
15 portion of the Columbia River as a Wild and Scenic River is not within DOE's authority. Public
16 Law 100-605, passed by Congress on November 4, 1988, authorizes a comprehensive study of
17 the Hanford Reach of the Columbia River to identify the outstanding features of the Hanford
18 Reach and its immediate environment, and to examine alternatives for their preservation. The
19 Secretary of the Interior has affirmed the addition of the Hanford Reach to the National Wild and
20 Scenic Rivers System and is waiting for Congressional action to implement the decision.
21

22 **2.1.26 Habitat**

23
24 More than 70 commenters addressed wildlife habitat. Sixty-nine of the letters were in
25 favor of setting aside land for conservation and preservation of habitat, noting that the wildlife
26 needs our protection. Many of the commenters noted that the number of native species, plants,
27 animals, and native plant communities at Hanford; and the diversity and scale of the ecosystem
28 is unique in this area. Many of the commenters mentioned the valuable shrub-steppe habitat,
29 which is home to many species, including the sage sparrow, desert butterflies, and species of
30 snakes, other reptiles, and amphibians. It was noted that at least two new plants to science have
31 been discovered on the Hanford Site. Concern for the well-being of wildlife, plants, wildflowers,
32 and fish habitat was expressed. Some emphasized the need for large areas of land for the
33 wildlife, noting that if the land is fragmented, the wildlife cannot survive. Three commenters did
34 not support wildlife habitat, noting that it is only weeds, and that DOE should not support wildlife
35 over children's education. One of the opposing commenters noted that it is possible for wildlife to
36 coexist with farming and development. (Total Habitat = 72). RE006, RE012, RE015, RE017,
37 RE020, RE023, RL007, RL008, RL013, RL029, RL032, RL038, RL056, RL059, RL060, RL061,
38 RL063, RL067, RL070, RL086, RL087, RL103, RL114, RL123, RL139, RL146, RL158, RL161,
39 RL163, RL164, RL165, RL168, RL171, RL175, RL178, RL179, RL222, RL227, RL238, RL256,
40 RL257, RL261, RL267, RL268, RL272, RL276, RL278, RL288, RL291, RL314, RL326, RL338,
41 RL379, RL445, RL452, RLP001, RLR006, RTM002, RTM007, RTM009, RTP001, RTP007,
42 RTP008, RTP009, RTP011, RTP013, RTP014, RTR002, RTR023, RTS014, RTS017, RTS018
43

44 **DOE's Response:** The DOE recognizes the unique shrub-steppe ecosystem on the Hanford
45 Site, and the abundance of plant and animal life that flourish in the natural state of this area. It is
46 because of the need to protect the environment (meeting DOE's policy as a Natural Resource
47 Trustee), that acreage for preservation is considered a high priority. Many of the plants and
48 animals on the Hanford Site need large expanses of land to survive. The DOE's Preferred
49 Alternative in the Final HCP-EIS protects and preserves the environment by placing a large
50 portion of the Hanford Site under management of the USFWS as an overlay wildlife refuge.
51

1 **2.1.27 Wahluke Slope**

2
3 The Wahluke Slope was the topic for many commenters. A total of 63 commenters cited
4 concerns regarding the Wahluke Slope. More than half (59 percent) were against any farming on
5 the Wahluke Slope. Ten supported farming for the area, particularly its suitability for irrigated
6 production. Seventeen commenters supported an impartial study of all of the potential uses of
7 the Wahluke Slope. (Total Wahluke Slope = 63). RE012, RE029, RL117, RL121, RL131, RL160,
8 RL161, RL163, RL179, RL204, RL221, RL222, RL250, RL268, RL283, RL288, RL297, RL298,
9 RL301, RL305, RL308, RL324, RL329, RL332, RL333, RL335, RL336, RL337, RL347, RL350,
10 RL351, RL352, RL363, RL441, RL447, RL450, RLM001, RTM005, RTM010, RTM011, RTM012,
11 RTM013, RTM014, RTM015, RTM020, RTP005, RTP006, RTP007, RTP008, RTR002, RTR006,
12 RTR009, RTR013, RTR014, RTS001, RTS002, RTS003, RTS007, RTS010, RTS011, RTS012,
13 RTS017, RTS021

14
15 **DOE's Response:** The DOE's Preferred Alternative in the Final HCP EIS would preclude
16 agricultural activities on the Hanford Site. The DOE has placed the entire Wahluke Slope under
17 the management of the USFWS as an overlay wildlife refuge, as the WDFW, the USFWS, and
18 the U.S. EPA support the designation of the entire Wahluke Slope for Preservation. The WDFW,
19 the USFWS, and DOE have recognized that the White Bluffs overlooking the Columbia River are
20 fragile and have been sloughing off into the Columbia River, in part due to irrigation runoff. Also,
21 the Wahluke Slope is the last remaining large and healthy shrub steppe ecosystem in the Pacific
22 Northwest, and the Hanford Reach is the last free-flowing section of the Columbia River. In
23 recognition of the fragility of the White Bluffs and the important ecological and cultural resources
24 of the Wahluke Slope and the Hanford Reach, DOE has, in its Preferred Alternative in the Final
25 HCP EIS, designated the entire Wahluke Slope for Preservation as an overlay wildlife refuge.

26
27 The DOE believes that further studies of the potential uses of the Wahluke Slope are not
28 warranted. The DOE believes that adequate studies have already been conducted to assess the
29 potential impacts of alternative uses of the Wahluke Slope. Potential environmental, cultural, and
30 socioeconomic impacts of alternative uses of the Wahluke Slope were assessed. Further
31 studies would essentially duplicate analyses already conducted for the Draft and Revised Draft
32 HRA-EIS and studies conducted by the National Park Service in support of the 1994 Hanford
33 Reach Environmental Impact Statement for the Comprehensive River Conservation Study
34 (referred to as the Hanford Reach EIS) and the ensuing 1996 DOI ROD. The Hanford Reach EIS
35 and ROD were Congressionally mandated to assess the outstanding features of the Hanford
36 Reach and its environs, including environmental and cultural values, and to examine alternatives
37 for preserving those values. The ROD concluded that, in order to protect the White Bluffs and
38 the cultural and ecological resources of the Wahluke Slope, the entire Wahluke Slope should be
39 managed as a wildlife refuge by the USFWS.

40
41 The DOE concurred in the 1994 DOI Hanford Reach EIS. Management of the Wahluke Slope for
42 Preservation as an overlay wildlife refuge under the Preferred Alternative is consistent with that
43 concurrence. The 1996 ROD for the Hanford Reach EIS precludes DOE from managing the
44 Wahluke Slope in a manner that would any adverse impacts on the values for which the Wahluke
45 Slope is under consideration for National Wildlife Refuge status.

46
47
48 **2.1.28 Split Record of Decision**

49
50 Many commenters supported a split ROD to expedite the designation of a wildlife refuge
51 (i.e., without waiting for the cleanup to be completed). One hundred and eighty-six commenters
52 wrote concerning this issue. A few commented that they wanted the separate decision no later
53 than December 1999. (Total Split ROD = 186). RE002, RE003, RE009, RE010, RE019, RE021,
54 RE026, RL005, RL006, RL007, RL008, RL009, RL010, RL013, RL014, RL015, RL016, RL017,

1 RL018, RL019, RL022, RL023, RL027, RL033, RL034, RL035, RL037, RL041, RL042, RL048,
2 RL049, RL051, RL052, RL053, RL055, RL057, RL064, RL065, RL066, RL068, RL069, RL074,
3 RL076, RL078, RL079, RL080, RL081, RL082, RL083, RL084, RL085, RL087, RL089, RL092,
4 RL093, RL095, RL096, RL099, RL100, RL101, RL102, RL103, RL104, RL105, RL107, RL109,
5 RL112, RL115, RL125, RL127, RL128, RL129, RL130, RL132, RL133, RL134, RL135, RL136,
6 RL138, RL139, RL140, RL148, RL149, RL150, RL151, RL154, RL158, RL160, RL165, RL167,
7 RL172, RL174, RL177, RL179, RL184, RL185, RL187, RL189, RL191, RL192, RL193, RL194,
8 RL203, RL204, RL206, RL207, RL211, RL213, RL215, RL216, RL220, RL222, RL223, RL224,
9 RL225, RL228, RL230, RL231, RL236, RL239, RL242, RL243, RL245, RL246, RL247, RL249,
10 RL252, RL253, RL254, RL255, RL256, RL257, RL261, RL262, RL266, RL267, RL268, RL271,
11 RL273, RL274, RL275, RL276, RL277, RL280, RL281, RL282, RL294, RL309, RL312, RL314,
12 RL315, RL316, RL320, RL323, RL340, RL342, RL360, RL363, RL365, RL368, RL369, RL371,
13 RL376, RL377, RL378, RL379, RL380, RL382, RL448, RL450, RLR005, RLR006, RLS002,
14 RLS005, RTP004, RTP006, RTP008, RTP012, RTR005, RTR006, RTR008, RTR012, RTS014,
15 RTS018, RTS019, RTS020.

16

17 **DOE Response:** While the scope of the Final HCP-EIS covers land-use planning for the entire
18 Hanford Site, it defers the evaluation of impacts associated with individual remedial actions to Tri-
19 Party Agreement documents. The ROD for this Final HCP-EIS is scheduled to be published in
20 November 1999; therefore, no “separate” ROD needs to be published in order to expedite the
21 implementation of the Hanford Comprehensive Land-Use Plan.

22

1 **CR3.0 Specific Public Comments and DOE's**

2 **Responses**

3
4 The Revised Draft HRA-EIS was published in April 1999 and the Notice of Availability was
5 published in the *Federal Register* on April 23, 1999, initiating the 45-day public comment period
6 that ended on June 7, 1999. Public hearings were held on May 18, May 20, June 2, and June 3 in
7 Portland, Oregon and Richland, Mattawa, and Spokane, Washington; and transcripts of these
8 meetings were produced. Comments were received throughout the public comment period and,
9 to accommodate as many as respondents as possible, comments were accepted after the close
10 of the comment period. The last comment was received on August 3, 1999. The complete
11 transcripts of the public hearings are presented at the end of the document, following copies of
12 the individual comments.
13

14 **3.1 Comment Coding System**

15
16 All comments received during the public comment period were initially coded "R," to
17 signify Revised Draft HRA-EIS. Written comments were then assigned an "L" for letter, and a
18 number according to the order in which the letter was received by DOE during the public
19 comment period. The DOE received more than 400 letters on the Revised Draft HRA-EIS.
20

21 Written comments turned in at public hearings (as opposed to being mailed) received
22 additional coding, as follows, to indicate at which hearing and in what order they were received:
23

24 RLP00? R = Revised Draft L = Letter P = Portland 0? = order in which received
25 RLR00? R = Revised Draft L = Letter R = Richland 0? = order in which received
26 RLM00? R = Revised Draft L = Letter M = Mattawa 0? = order in which received
27 RLS00? R = Revised Draft L = Letter S = Spokane 0? = order in which received
28 STR00? STR=Save The Reach petitioner number
29 FTS00? FTS=Farm The Slope petitioner number
30

31 E-mails were coded "RE" (for Revised Draft - E-mail), followed by a number for the order
32 in which they were received. The DOE received 30 E-mails on the Revised Draft HRA-EIS. The
33 DOE also accepted a binder with 922 endorsements for the Wild and Scenic River (with the
34 inclusion of a Wahluke Wildlife Refuge) that was collected for the Department of the Interior's
35 Hanford Reach EIS in 1994. More than 200 request forms for farmland on the Wahluke Slope
36 (also generated for the Hanford Reach EIS in 1994) were accepted in the same spirit. The DOE
37 recorded the names of all the endorsees, but only assigned one comment number to each
38 signature-gathering effort because they occurred before the Revised Draft HRA-EIS was
39 available for comment. These comments are listed in the Index as "Save The Reach," (STR) and
40 "Farm The Slope" (FTS).
41

42 If a letter, e-mail, or transcript comment contained more than one comment, then the
43 comment was assigned additional numbers to label the individual comments. For example, letter
44 number RL-318, from the Nez Perce Tribe, contained 62 individual comments which were
45 numbered sequentially as follows: RL318-01, RL318-02, RL318-03, RL318-04, etc.
46
47

48 **3.2 Specific Public Comments**

49
50 Some comment letters and transcript statements contained one or more specific
51 comments as opposed to addressing a major topic. Following the "R" number that was assigned
52 to all comments, these specific comments were given specific comment codes, which were

1 recorded and answered with specific answers in sequential order by the DOE. These specific
2 comments are also coded sequentially as to where they appear in a letter or transcript. The
3 responses also indicate whether or not the text of the EIS was corrected or revised because of
4 the comment and, if so, which section of the EIS was revised.

5
6 **COMMENT CODE**

7 RLM001-01

8
9 **LOCATION OF EIS REVISION(S)**

10 None required.

11
12 **RESPONSE**

13 The DOE agrees that the Wahluke area is not pristine habitat; however, it is the best large block
14 of south slope shrub-steppe habitat that can be found in the Columbia Basin. The same
15 environmental factors that make the Wahluke Slope unique for farming (e.g., deep soils and
16 warm microclimate), contribute to its uniqueness for wildlife habitat. With the widespread
17 practice of irrigated farming from the Columbia Basin Reclamation Project, several of the
18 cooperating agencies and other EIS commenters have counseled DOE to preserve this habitat to
19 ensure that shrub-steppe dependent species, such as the sage sparrow or sage grouse, don't
20 move onto the Endangered Species List and create more problems for established farming
21 communities.

22
23 **COMMENT CODE**

24 RLM001-02

25
26 **LOCATION OF EIS REVISION(S)**

27 None required.

28
29 **RESPONSE**

30 On February 11, 1994, the President of the United States issued Executive Order 12898
31 (Executive Order 12898, 59 FR 32, 1994), *Federal Actions to Address Environmental Justice in*
32 *Minority Populations and Low-Income Populations*. This Executive Order mandates each
33 Federal agency to make environmental justice part of the agency mission. To the greatest extent
34 practicable and permitted by law, Federal agencies must identify and address disproportionately
35 high and adverse human health or environmental effects of their programs, policies, and activities
36 on minority populations and low-income populations.

37
38 As stated in the President's February 11, 1994 memorandum that accompanied the Executive
39 Order, "Each Federal agency shall analyze the environmental effects, including human health,
40 economic, and social effects, of Federal actions, including effects on minority communities and
41 low-income communities, when such analysis is required by NEPA (42 USC Section 4321,
42 et seq.). Mitigation measures outlined or analyzed in an environmental assessment,
43 environmental impact statement, or record of decision, whenever feasible, should address
44 significant and adverse environmental effects of proposed Federal actions on minority
45 communities and low-income communities." The memorandum and Executive Order ensure
46 that minority and low-income communities will have a voice in the development and
47 implementation of any Federal action that might adversely affect those communities.

48
49 In addition, the memorandum and Executive Order indicate that all Federal agencies are to be
50 proactive in identifying and, to the extent practicable, mitigating any potential disproportionately
51 high and adverse impacts on minority and low-income communities that could result from
52 proposed Federal actions.

1 In order to implement the provisions of Executive Order 12898, the *U.S. Department of Energy*
2 *Environmental Justice Strategy, Executive Order 12898* (DOE 1995a) was prepared. Guidance
3 provided in this publication, as well as the Council on Environmental Quality (CEQ's)
4 *Environmental Justice Guidance under NEPA* (March 1998), and EPA's *Guidance for*
5 *Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses*
6 (April 1998) were used, to the extent practicable, in the Revised Draft HRA-EIS.

7
8 Because the action is Preservation for the Wahluke Slope, there are no impacts to the Hispanic
9 population because no changes to the current use of the lands were made. If farming was
10 planned, Environmental Justice impacts would have been made to the two Tribal Nations who
11 served as consulting Tribal governments for this EIS -- both chose Preservation as the land use
12 for the Wahluke Slope. Preservation is consistent with the wishes of the minority and low-income
13 communities that would be most directly affected by the proposed Federal action. It has been
14 DOE's experience that many (over 50 families) use the Wahluke Slope wetland areas as a
15 campground (albeit illegally) during the cherry harvest.

16
17 **COMMENT CODE**

18 RLM001-03

19
20 **LOCATION OF EIS REVISION(S)**

21 None required.

22
23 **RESPONSE**

24 The DOE agrees that Grant County and the Port of Mattawa should be included in Hanford's
25 Economic Development Mission, and DOE encourages the public agencies to seek DOE
26 assistance for economic development. The fact that current reindustrialization benefits are being
27 captured almost exclusively by Benton County, the Port of Benton, and the City of Richland is
28 because Benton County is where all of the Hanford industrial facilities are located.

29
30 An example of a successful reindustrialization effort is the transfer of the Hanford 1100 Area and
31 Hanford railroad southern connection (from Horn Rapids Road to Columbia Center) from DOE
32 ownership to Port of Benton ownership. A key to transfer was that the land use of the 1100 Area
33 and the railroad southern connection would remain Industrial, as proposed in all alternatives of
34 this EIS. The DOE prepared an Environmental Assessment (EA) that resulted in a finding of no
35 significant impact (FONSI) on August 27, 1998, transferring the 1100 Area and the Southern rail
36 connection to the Port of Benton (DOE/RL EA-1260). The Port officially took ownership and
37 control of the "1100 Area" (consisting of 786 acres, 26 buildings, and 16 miles of rail tract) on
38 October 1, 1998.

39
40 For more information about regulations pertaining to land transfer or facility leasing, see Table 1-4
41 of the HCP EIS. For more information about the process for transferring property, refer to the
42 guidebook, *Cross-Cut Guidance on Environmental Requirements for DOE Real Property*
43 *Transfers*, or the Washington State Department of Ecology's guidebook, *Hanford Land Transfer*.

44
45 The DOE tried to accommodate every party when determining the DOE's Preferred Alternative,
46 while still fulfilling a primary or secondary DOE Mission. Of the 66,000 acres in Grant County,
47 about 10,000 acres belong to the Bureau of Land Management (BLM) and wasn't available for
48 DOE to transfer to a local governmental authority. Benton County is being asked to accept a
49 continuation of the Grant and Franklin County Wildlife Refuge that is twice the size of either
50 Wahluke Slope county's contribution to the Refuge. By helping establish this large overlay wildlife
51 refuge as a shrub-steppe habitat bank, DOE expects the region would gain overall by reducing
52 the chance that new ESA listings appear from the shrub-steppe habitat alternating or limiting
53 current land uses. The wildlife refuge would help protect the last wild stocks of anadromous fish
54 spawning in the Columbia River Hanford Reach; add ecotourism, thereby diversifying the largely

1 agrarian economy; and help ensure there is open space critical to the quality of life in eastern
2 Washington. Because DOE has chosen to work with the USFWS to establish the wildlife refuge
3 as an “overlay refuge,” DOE would retain the land ownership which, in turn, would maximize the
4 payment in lieu of taxes (PILT) to the affected counties. The DOE sees its Preferred Alternative,
5 as presented in the Final HCP EIS, as the best outcome for local, regional, and national interests.
6

7
8 **COMMENT CODE**

9 RL147

10
11 **LOCATION OF EIS REVISION(S)**

12 None required.

13
14 **RESPONSE**

15 One of the assumptions used to develop DOE’s Preferred Alternative was that the public would
16 support preservation of the Manhattan Project’s historical legacy and development of a High-
17 Intensity Recreation area, consistent with the B Reactor museum proposal. In the DOE’s
18 Preferred Alternative in the Final HCP EIS, the 100 Areas would include High-Intensity Recreation,
19 Conservation (Mining), and Preservation land-use designations.
20

21 The B Reactor would be designated High-Intensity Recreation to allow tourism of the Federally
22 registered landmark consistent with the B Reactor museum proposal. The High-Intensity
23 Recreation area near Vernita Bridge (where the current Washington State rest stop is located)
24 would be expanded across State Highway 240 and to the south to include a boat ramp and other
25 visitor-serving facilities. Because of DOE Environmental Restoration operational concerns, a
26 boat dock at the B Reactor would not be permitted until the Environmental Restoration activities
27 were completed. At that time, the B Reactor Museum Association could apply for the appropriate
28 permits to construct a boat dock. Rail access to the site would not be hindered by DOE’s
29 Preferred Alternative because the extant rail lines are considered pre-existing nonconformances.
30

31 In its comments on the Revised Draft HRA-EIS, the Port of Benton expressed a desire to use the
32 Hanford rail system and to extend the current system upriver where there is currently only an
33 abandoned railroad grade. Provisions for that connection would be made in the permit to the
34 USFWS for management of the refuge. Although DOE’s Preferred Alternative in the Final HCP
35 EIS would not hinder the rail option because it is a pre-existing, nonconforming use (e.g., any
36 existing lawfully established use that is neither allowed nor conditionally permitted within a land-
37 use designation, but exists therein, having been established prior to the CLUP land-use
38 designation), DOE does not intend to maintain the northern portions of the existing rail line and,
39 under General Policy Number 8 (see Chapter 6 of the Final HCP EIS), it is DOE’s policy to, “as
40 feasible and practical, remove pre-existing, nonconforming uses.”
41

42 **COMMENT CODE**

43 RL154-01

44
45 **LOCATION OF EIS REVISION(S)**

46 None required.

47
48 **RESPONSE**

49 In the Notice of Intent in 1992, establishing future land uses was listed as one of the HRA-EIS
50 objectives. The Implementation Plan for the *Hanford Remedial Action Environmental Impact*
51 *Statement* (DOE/-93-66, June 1995) states, on page E-28, “Although the HRA-EIS would not
52 make specific land-use decisions, it will support long-term future land-use objectives by analyzing
53 the environmental impacts associated with remediation. The HRA-EIS will establish a framework
54 of future land-use objectives for different areas of the Hanford Site.” Since that time, various

1 considerations (including public comment received on the 1996 Draft HRA-EIS) have led to this
2 Final HCP EIS in which future land use is the EIS's focus.

3
4 A revised Implementation Plan for the HRA-EIS, withdrawing the statement, "the HRA-EIS will not
5 make specific land-use decisions," would have been issued sometime after the 1995 document
6 and before the August 1996 Draft EIS was issued but, the DOE Policy requiring preparation of
7 Implementation Plans was rescinded during that time period. The Implementation Plan was not
8 subject to public comment (as you state), but it did include DOE's reiteration of public comment
9 received during scoping meetings on the HRA-EIS. As recorded in the HRA-EIS Implementation
10 Plan, public comment received during scoping was broad enough on land-use decisions that
11 DOE could apply any level of land-use decision making in its Draft EIS. The DOE's intent to
12 include specific land-use planning was evidenced by the inclusion of the *Comprehensive Land
13 Use Plan-Appendix M* in the August 1996 Draft HRA-EIS.

14
15 You are correct that DOE received comment on the August 1996 Draft HRA-EIS stating that the
16 regulators would make clean-up decisions. Additionally, commenters said that DOE should limit
17 its decision making to that decision that is truly DOE's to make (i.e., land use). To reflect this
18 reduction in scope from the August 1996 Draft HRA-EIS, DOE solicited comments on a proposed
19 name change for the EIS as well as the contents. In response to comments received on the
20 Revised Draft HRA-EIS, the DOE has changed the name of the document from the *Hanford
21 Remedial Action Environmental Impact Statement and Comprehensive Land-Use Plan* (HRA-
22 EIS) to the *Hanford Comprehensive Land-Use Plan* (HCP EIS).

23
24 **COMMENT CODE**

25 RL154-02

26
27 **LOCATION OF EIS REVISION(S)**

28 None required.

29
30 **RESPONSE**

31 The DOE believes the biological and cultural resource surveys that were done for the referenced
32 report, *Site Evaluation Report for Candidate Basalt Quarry Sites* (BHI-0005), are adequate for
33 NEPA purposes. In addition, Appendix D of the EIS gives a clear review of what site-specific
34 biological and cultural resources would be impacted by choosing a particular site. The decision
35 to use the ALE Reserve quarry as a basalt and soil source for 200 Area caps is adequately
36 examined within the context of a comprehensive land-use plan. The DOE agrees that additional
37 NEPA probably would be required before the site is actually impacted by mining due to the
38 transient nature of biological resources. Whether the NEPA analysis would be simply a
39 Categorical Exclusion (CX) or an Environmental Assessment (EA), or a more complex
40 Supplemental EIS or EIS would depend on many factors that would be debated at that time. Until
41 then, the decision to not mine in significantly large areas of the site would allow environmentally
42 friendly programs, such as habitat mitigation, to go forward with assurance that those decisions
43 would not be easily rescinded.

44
45 **COMMENT CODE**

46 RL154-03

47
48 **LOCATION OF EIS REVISION(S)**

49 Figure S-5, Figure S-6, Figure 4-35, Figure 4-36, Table 4-14, Sections 4.11.1 and 4.11.1.1

50
51 **RESPONSE**

52 Section 4.11, Environmental Monitoring Programs, contains additional information on the actual
53 extent and content of contamination of Hanford's soils and waters. The vadose zone
54 contamination areas are shown as Figure 4-34, *Hanford Surface Waste Sites*; and the

1 groundwater plume maps are shown in Figure 4-35, *Distribution of Hazardous Chemicals in*
2 *Groundwater Within the Hanford Site*, and Figure 4-36, *Distribution of Radionuclides of Concern*
3 *in Groundwater Within the Hanford Site*. Additionally, an extensive list of groundwater
4 contaminants is given in Table 4-14, *Detected Concentrations Greater Than Drinking Water*
5 *Standards: 1995 Groundwater Sampling Rounds*.

6
7 In the Final HCP EIS, these figures and monitoring lists have been updated based on the *Hanford*
8 *Groundwater Monitoring Annual Report 1998*. Several principal contaminants (Tc-99, C-14, cis
9 1,2-dichloroethylene, and tetracholorethylene) have been added to the Quick Facts box.
10 However, as vinyl chloride and arsenic have not been detected in two years, they will remain off
11 the list.

12
13 To address future issues, we have added to the Final EIS the groundwater modeling results of
14 maximum activity-concentration plots prepared from three-dimensional model results that
15 represent the maximum concentration vertically at each x-y location. The contour plots of
16 concentration represent the areal distribution of the maximum model simulated activity
17 concentration at any depth within the aquifer at the year 2050.

18
19 The year 2050 was chosen as the beginning of the compliance period, which corresponds to the
20 Hanford Site closure assumed in the composite analysis (PNNL-11801). Figures that were
21 added to the Final HCP EIS show the predicted distributions of contaminants in the unconfined
22 aquifer in 2050. Figures 4-37, 4-38, 4-39, 4-40, 4-41, 4-42, 4-43, and 4-44 model the distributions
23 of tritium, iodine-129, technetium-99, uranium, strontium-90, carbon-14, chlorine-36, and
24 selenium-79, respectively, for the start of the compliance period (e.g., 2050). Extant Figure 4-37
25 has been changed to Figure 4-45.

26
27 **COMMENT CODE**

28 RL154-04

29
30 **LOCATION OF EIS REVISION(S)**

31 None required.

32
33 **RESPONSE**

34 The concept of using grazing to control fire danger and the spread of noxious weeds was
35 provided to DOE by the Washington Department of Fish and Wildlife (WDFW). A Washington
36 State grazing permit (lease #WS-01) was in effect on 9,280 acres of the Wahluke Slope but, has
37 since been rescinded. During the preparation of the Revised Draft HRA-EIS, the cooperating
38 agencies were informed by a WDFW representative that the grazing permit was in effect to
39 control fire danger by removing the cheatgrass and, because cheatgrass is a non-native invader,
40 the grazing also helped control noxious weeds. In the State grazing permit (lease #WS-01) the
41 lease says, "The goal of this grazing program is to reduce the amount and vigor of cheatgrass on
42 this site and increase the amount and diversity of perennial vegetation."

43
44 **COMMENT CODE**

45 RL154-05

46
47 **LOCATION OF EIS REVISION(S)**

48 None required.

49
50 **RESPONSE**

51 Alternative Two reflects tribal views and therefore includes the right to graze livestock as a
52 cultural activity. In the Yakama Treaty of Camp Stevens (1855), and in Article 3 of the Nez Perce
53 Treaty (1855), the following is secured as a treaty right: "The exclusive right of taking fish in all
54 the streams where running through or bordering said reservation is further secured to said

1 Indians”; as also (is) the right of taking fish at all usual and accustomed places in common with
2 citizens of the Territory; and of erecting temporary buildings for curing, together with the privilege
3 of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and
4 unclaimed land.” Similar language is found in Article 1 of the Walla Walla Treaty of Camp
5 Stevens (1855).
6

7 Although DOE maintains that the Hanford Site is not open and unclaimed, Alternative Two is the
8 Nez Perce Alternative and the Nez Perce maintain the Tribal view that pasturing horses and cattle
9 and other consumptive uses are still cultural treaty reserved rights even if the Federal agency in
10 charge prohibits those activities for commercial or environmental reasons. The same can be
11 said for the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Alternative Four.
12 This is why Alternative One, sponsored by the U.S. Fish and Wildlife Service (USFWS), is the
13 Environmentally Preferred Alternative, even though less is actually Preserved under Alternative
14 One than under Alternative Two.
15

16 **COMMENT CODE**

17 RL154-06
18

19 **LOCATION OF EIS REVISION(S)**

20 None required.
21

22 **RESPONSE**

23 The potential grazing or land transfers beyond the 200 Areas fence is predicated by Tri-Party
24 Agreement (TPA) cleanup achieving a standard that would allow the grazing or land transfers. As
25 explained in the Foreword of this EIS, *Implementation of the Comprehensive Land-Use Plan*
26 *(CLUP) will begin a more detailed planning process for land-use and facility-use decisions at the*
27 *Hanford Site. The DOE will use the CLUP to screen proposals. Eventually, management of*
28 *Hanford Site areas will move toward the CLUP land-use goals. This CLUP process could take*
29 *more than 50 years to fully achieve the land-use goals.*
30

31 **COMMENT CODE**

32 RL154-07
33

34 **LOCATION OF EIS REVISION(S)**

35 G-7
36

37 **RESPONSE**

38 In the Final HCP EIS, the glossary definition of institutional controls has been changed to the
39 following:
40

41 ***Institutional controls.*** The term “institutional controls” is intended to be a broad term. It
42 generally includes all non-engineered restrictions on activities, access, or exposure to land,
43 groundwater, surface water, waste and waste disposal areas, and other areas or media. Some
44 common examples of tools to implement institutional controls include restrictions on use or
45 access, zoning, governmental permitting, public advisories, installation master plans, and legal
46 restrictions such as deed notices or other environmental easements. Institutional controls may
47 be temporary or permanent restrictions or requirements.
48

49 **COMMENT CODE**

50 RL154-08
51

52 **LOCATION OF EIS REVISION(S)**

53 None required.

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RESPONSE

The DOE does not agree that this EIS is significantly deficient in that TPA CERCLA ROD decisions are not analyzed with respect to the RODs being made, and “not addressing all applicable and substantive ARARs,” since that is a TPA issue.

Originally, this EIS was intended to provide an environmental review under the *National Environmental Policy Act of 1969* (NEPA) for all aspects of the developing Hanford Environmental Restoration Project. At the request of the regulators, the document, however, no longer directly considers remediation issues. Instead, remediation issues are now integrated into specific TPA-remediation decision documents. Remediation decisions are made by the U.S. Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology) as lead regulatory agencies, and DOE as the lead implementing agency. The DOE does expect that the EIS process would assist Hanford remediation efforts by determining reasonably foreseeable land uses and establishing land-use, decision-making processes to ensure the viability of any future institutional control that might be required.

The restrictions posed by approved CERCLA RODs were taken into consideration in the development of the land-use alternatives in this Final HCP EIS. Conversely, the land-use alternative selected for implementation in the ROD for this EIS would be useful for remediation decisions yet to be made in other areas of the Hanford Site. The EPA, Ecology, and DOE consider land-use designations in a given area when determining clean-up levels. If the desired “highest and best use” land use cannot be attained because of remediation-linked technical or economic constraints, or if the remedial action required to achieve that land use would cause unacceptable-unavoidable impacts, then the land-use designation of this EIS would be amended to the next “highest and best use” land use using the policies and implementing procedures in Chapter 6. If required by the CERCLA/RCRA ROD, a deed restriction would be filed with the local land-use jurisdictional agency to conditionally implement the land use.

COMMENT CODE

RL154-09

LOCATION OF EIS REVISION(S)

G-6

RESPONSE

The following definition of Highest and Best Use has been added to the Glossary in the Final HCP EIS:

Highest and Best Use (of property). Section 101-47.4909 of the Federal Property Management Regulations defines the “highest and best use” as that use to which a property can be put that produces the highest monetary return from the property, promotes its maximum value, or serves a public or institutional purpose. The “highest and best use” determination must be based upon the property’s economic potential, qualitative values inherent in the property, and utilization factors affecting land use such as zoning, physical characteristics, other private and public uses in the vicinity, neighboring improvements, utility services, access, roads, location, and environmental and historical considerations.

1 **COMMENT CODE**

2 RL154-10

3
4 **LOCATION OF EIS REVISION(S)**

5 None required.

6
7 **RESPONSE**

8 Yes, it is true that the mitigation measures are premised on potentialities and not on an analysis
9 of actual cultural and biological resource impacts. As the actual final RODs for the 100 Areas
10 have not yet been established, however, potential impacts are still speculative. The CEQ has
11 guidance about uncertainty and how NEPA documents should deal with speculative issues.
12 Specifically, Question 18 of the CEQ's 40 Questions guidance says:

13
14 *Q 18. Uncertainties About Indirect Effects of A Proposal. How should uncertainties about*
15 *indirect effects of a proposal be addressed, for example, in cases of disposal of Federal lands,*
16 *when the identity or plans of future landowners is unknown?*

17
18 *A. The EIS must identify all the indirect effects that are known, and make a good faith effort to*
19 *explain the effects that are not known but are "reasonably foreseeable." Section 1508.8(b). In the*
20 *example, if there is total uncertainty about the identity of future land owners or the nature of future*
21 *land uses, then of course, the agency is not required to engage in speculation or contemplation*
22 *about their future plans. But, in the ordinary course of business, people do make judgments*
23 *based upon reasonably foreseeable occurrences. It will often be possible to consider the likely*
24 *purchasers and the development trends in that area or similar areas in recent years; or the*
25 *likelihood that the land will be used for an energy project, shopping center, subdivision, farm or*
26 *factory. The agency has the responsibility to make an informed judgment, and to estimate future*
27 *impacts on that basis, especially if trends are ascertainable or potential purchasers have made*
28 *themselves known. The agency cannot ignore these uncertain, but probable, effects of its*
29 *decisions.*

30
31 The DOE believes that the effort to establish "reasonably foreseeable" land uses was
32 accomplished by inviting each governmental body that could receive management responsibility
33 for Hanford lands to participate in the preparation of this EIS as a cooperating agency or
34 consulting Tribal government.

35
36 **COMMENT CODE**

37 RL166

38
39 **LOCATION OF EIS REVISION(S)**

40 None required.

41
42 **RESPONSE**

43 In the Introduction to the HCP EIS, DOE states, *This land-use plan can be used by the regulators*
44 *to establish goals for the CERCLA/Resource Conservation and Recovery Act of 1976 (RCRA)*
45 *cleanup (i.e., remediation) processes. Remediation will be conducted under CERCLA/RCRA*
46 *authority. If the remediation process cannot support the proposed land use within the National*
47 *Contingency Plan's (NCP) 10⁻⁴ to 10⁻⁶ risk range, then this EIS contains a proposed process for*
48 *changing the "highest and best use" of the land while maintaining institutional controls (see*
49 *Chapter 6).*

50
51 The residual human health risk always would be an acceptable CERCLA risk between 10⁻⁴ to 10⁻⁶
52 independent of whatever land use is chosen. The end risk would always be the same. The
53 impacts to land use would be generated by either clearing risk pathways via remediation (e.g.,

1 creating physical remediation impacts), or by engineering or institutional controls that remove a
2 pathway (i.e., land-use opportunities) from risk contribution consideration.

3
4 **COMMENT CODE**

5 RL181-01

6
7 **LOCATION OF EIS REVISION(S)**

8 None required.

9
10 **RESPONSE**

11 When the cooperating agencies looked at expanding recreational opportunities along the
12 Columbia River, two resource areas – biological and cultural – were always scrutinized. The
13 White Bluffs Boat launch has cultural significance that would be preserved best by continued
14 operation of the old ferry launches on both sides of the river. Further, establishing a new boat
15 launch would most likely impact existing tribal cultural resources. All three Hanford avian species
16 that are currently protected under the ESA have been placed in the delisting process and will be
17 removed in one to two years. Those Hanford species left on the ESA are three anadromous
18 fishes that could be impacted from the installation of a new boat ramp. Helping with these types
19 of balancing questions between resource protection issues and greater access to those
20 resources is why the SPAB's advice would be so valuable to DOE because of the outside
21 expertise.

22
23 **COMMENT CODE**

24 RL181-02

25
26 **LOCATION OF EIS REVISION(S)**

27 None required.

28
29 **RESPONSE**

30 The use of McGee Ranch as a source of soil material for remediation caps versus its value as a
31 wildlife corridor was discussed extensively by the cooperating agencies. Wildlife biologists
32 believe that the McGee Ranch is key to maintaining a wildlife corridor between the Army's Yakima
33 Training Center and the Hanford Site. The ALE Reserve site also has suitable soils that are less
34 in depth and would, therefore, require more surface area, but the site also has a below-grade
35 basalt source thereby avoiding cultural issues and centralizing the potential cap disturbances to
36 one site with the added benefit of no wildlife corridor issue.

37
38 **COMMENT CODE**

39 RL181-03

40
41 **LOCATION OF EIS REVISION(S)**

42 None required.

43
44 **RESPONSE**

45 Because of DOE's Congressionally mandated missions, all of those areas that possess
46 significant biological or cultural resources have been placed into Preservation status under the
47 DOE's Preferred Alternative in the Final HCP EIS. DOE land use is geared toward development
48 because industrial facilities are the nature of DOE's Congressionally mandated mission. DOE's
49 Hanford programmatic missions are to clean up the site under Environmental Management, and
50 to perform science and technology research under Energy Research. Other activities, such as
51 economic development and natural resource stewardship, are secondary missions. Because
52 some of DOE missions require large isolated areas, blending the current programmatic
53 missions with the secondary missions is good business practice. The commitment of large

1 contiguous areas of the Hanford Site for Industrial uses fairly reflects the uncertainty of DOE's
2 unique Congressionally mandated industrial production missions over a 50 year planning period.
3 The No-Action Alternative shows that DOE currently considers the entire area between the
4 Columbia River and State Highway 240 as "Open Space" (reserved for future development."
5 Only those areas that possess significant biological or cultural resources have been placed into
6 Preservation status under DOE's new Preferred Alternative because of DOE's Congressionally
7 mandated industrial production mission.
8

9 **COMMENT CODE**

10 RL185

11
12 **LOCATION OF EIS REVISION(S)**

13 None required.
14

15 **RESPONSE**

16 Please see response to comment RL181-03 (above).
17

18 **COMMENT CODE**

19 RL199-01
20

21 **LOCATION OF EIS REVISION(S)**

22 None required.
23

24 **RESPONSE**

25 The DOE received differing opinions on what a desirable length should be for a Summary.
26

27 **COMMENT CODE**

28 RL199-02
29

30 **LOCATION OF EIS REVISION(S)**

31 None required.
32

33 **RESPONSE**

34 The DOE understands that current and future deed restrictions need to contain some type of
35 buffer zone to prevent the lateral movement of vadose zone water onto contamination left at
36 depth, especially given the large areal extent of caliche layers at Hanford. The DOE sees this
37 type of site-specific advice as something the SPAB, because of its outside expertise, could help
38 with as DOE works with the TPA regulators on deed restrictions.
39

40 **COMMENT CODE**

41 191-03
42

43 **LOCATION OF EIS REVISION(S)**

44 None required.
45

46 **RESPONSE**

47 Please see response to comment RL181-03 (above).
48

49 **COMMENT CODE**

50 RL199-04
51

52 **LOCATION OF EIS REVISION(S)**

53 None required.

1 **RESPONSE**

2 The Comprehensive Land-Use Plan (CLUP) is to set the boundaries for all follow-up Area
3 Management Plans and Resource Management Plans. These plans cannot be independent of
4 the CLUP because protection of resources often conflict with each other, as well as with DOE
5 missions. For example, a wildlife biologist might not have the expertise to recognize a cultural
6 site and could inadvertently destroy an artifact by crushing it underfoot while searching for a
7 protected wildlife species. On the other hand, an archaeologist might not have the biological
8 expertise to identify a sensitive species and might inadvertently disturb that species. The same
9 can be said for a fire management officer dealing with an ongoing sagebrush fire. Each resource
10 has its experts and issues. All the issues come together “on the ground.” This is why the
11 CLUP’s role is an integration function that must have the authority to define the boundaries of the
12 resource management plans, but only where discretionary actions conflict.

13
14 **COMMENT CODE**

15 RL199-05

16
17 **LOCATION OF EIS REVISION(S)**

18 S1.0, 1.0

19
20 **RESPONSE**

21 Comment accepted. The following text, *It is DOE’s responsibility to include in its annual budget*
22 *request sufficient funds for applicable environmental requirements*, has been added to the EIS
23 text.

24
25 **COMMENT CODE**

26 RL199-06

27
28 **LOCATION OF EIS REVISION(S)**

29 None required.

30
31 **RESPONSE**

32 It is the responsibility of the managing agency to ask Congress for the appropriate funding levels
33 to carry out its Congressionally mandated functions. Funding is a Congressional decision.

34
35 **COMMENT CODE**

36 RL199-07

37
38 **LOCATION OF EIS REVISION(S)**

39 S3.4, 3.3.4.1

40
41 **RESPONSE**

42 Comment accepted. The phrase, “*and incorporates the Federal trust responsibility to the Indian*
43 *Tribes*” has been added to the cited EIS text.

44
45 **COMMENT CODE**

46 RL199-08

47
48 **LOCATION OF EIS REVISION**

49 None required.

50
51 **RESPONSE**

52 The DOE agrees that one can only speculate about what would happen if areas of the site are
53 placed in private ownership. However, the CEQ provides guidance about uncertainty and how

1 NEPA documents should deal with speculative issues. (Please see response to comment
2 RL154-10).

3
4 The DOE believes that the effort to establish “reasonably foreseeable” land uses was
5 accomplished by inviting each governmental body that could receive management responsibility
6 for Hanford lands into this EIS as a cooperating agency or consulting Tribal government.

7
8 Benton County’s analysis for industrial areas was based on a *Growth Management Act* (GMA)
9 formula tied to expected population growth, which is appropriate for areas not impacted by large
10 Federal projects such as Hanford. Benton County also recognizes the nature of DOE’s missions
11 and tried to accommodate that uncertainty. DOE land use is geared toward development
12 because industrial facilities are the nature of DOE’s Congressionally mandated mission. DOE’s
13 current Hanford programmatic missions are to clean up the site under Environmental
14 Management, and to perform science and technology research under Energy Research. These
15 programmatic missions can change within a year based on the wishes and whims of the Federal
16 government. Other activities, such as economic development and natural resource stewardship,
17 are secondary missions. Because some DOE missions require large isolated areas, blending
18 the current programmatic missions with secondary missions is good business practice. The
19 commitment of large contiguous areas of the Hanford Site for Industrial uses fairly reflects the
20 uncertainty of DOE’s unique Congressionally mandated industrial production missions over a 50
21 year planning period. The No-Action Alternative shows that DOE currently considers the entire
22 area between the Columbia River and State Highway 240 as “Open Space” (reserved for future
23 development). Only those areas that possess significant biological or cultural resources have
24 been placed into Preservation status under the DOE Preferred Alternative because of DOE’s
25 Congressionally mandated industrial production mission.

26
27 **COMMENT CODE**

28 RL199-09

29
30 **LOCATION OF EIS REVISION(S)**

31 None required.

32
33 **RESPONSE**

34 The *Hanford Cultural Resources Management Plan*, which was approved by the State Historic
35 Preservation Office (SHPO) in 1989, was developed to establish guidance for the identification,
36 evaluation, recordation, curation, and management of archaeological, historic, and traditional
37 cultural resources as individual entities or as contributing properties within a district. The plan
38 specifies methods of consultation with affected Tribes, government agencies, and interested
39 parties; and includes strategies for the preservation and/or curation of representative properties,
40 archives, and objects.

41
42 Cultural resources are defined as any district, Site, building, structure, or object considered to be
43 important to a culture, subculture, or community for scientific, traditional, religious, or other
44 reasons. For the purpose of this EIS, these resources are divided into several categories: pre-
45 contact and post-contact archaeological resources, architectural resources, and traditional
46 (American Indian) cultural resources. Significant cultural resources are those that are eligible or
47 potentially eligible for listing in the National Register of Historic Places (National Register) (NPS
48 1988).

49
50 Consultation is required to identify the traditional cultural properties that are important to
51 maintaining the cultural heritage of American Indian Tribes. Under separate treaties signed in
52 1855, the Confederated Tribes and Bands of the Yakama Indian Nation and the Confederated
53 Tribes of the Umatilla Indian Reservation (CTUIR) ceded lands to the United States that include
54 the present Hanford Site. Under the treaties, the Tribes reserved the right to fish at usual and

1 accustomed places in common with the citizens of the territory, and retained the privilege of
2 hunting, gathering roots and berries, and pasturing horses and cattle upon open unclaimed land.
3 The Treaty of 1855 with the Nez Perce Tribe includes similar reservations of rights, and the
4 Hanford Reach is identified as the location of usual and accustomed places. The Wanapum
5 People are not signatory to any treaty with the United States and are not a Federally recognized
6 Tribe; however, the Wanapum People were historical residents of the Hanford Site, and their
7 interests in the area have been acknowledged.

8
9 The methodology for identifying, evaluating, and mitigating impacts to cultural resources is
10 defined by Federal laws and regulations including the *National Historic Preservation Act of 1966*,
11 the *Archaeological Resources Protection Act of 1979*, the *Native American Graves Protection*
12 *and Repatriation Act of 1990*, and the *American Indian Religious Freedom Act of 1978*. A project
13 affects a significant resource when it alters the characteristics of the property, including relevant
14 features of its environment or use, that qualify it as significant according to the National Register
15 criteria. These effects may include those listed in 36 CFR 800.9. The DOE recognizes that
16 impacts to traditional American Indian properties can be determined only through consultation
17 with the affected American Indian groups.

18
19 In 1995, 964 cultural resource sites and isolated finds were recorded in the files of the Hanford
20 Cultural Resources Laboratory (HCRL). Forty-eight archaeological sites and one building are
21 included on the National Register. National Register nominations have been prepared for several
22 archaeological districts and sites considered to be eligible for listing on the National Register.
23 While many significant cultural resources have been identified, only a small portion of the Hanford
24 Site has been surveyed by cultural resource specialists and few of the known sites have been
25 evaluated for their eligibility for listing in the National Register. Many additional cultural resources
26 may remain unidentified, as in the area designated for High-Intensity Recreation. Cultural
27 resource reviews are conducted when projects are proposed in areas that have not been
28 previously surveyed. About 100 to 120 reviews were conducted annually through 1991; this figure
29 rose to more than 360 reviews during 1995.

30
31 As long as a Federal agency holds the land, all Federal cultural resource protection regulations
32 would still apply. The Tribal Nations would be consulted before any DOE transfer of lands. There
33 have been many instances of mitigation for cultural properties off the Hanford Site.

34
35 **COMMENT CODE**

36 RL199-10

37
38 **LOCATION OF EIS REVISION(S)**

39 None required.

40
41 **RESPONSE**

42 Tribal governments and DOE agree that the Tribal members treaty-reserved right of taking fish at
43 all "usual and accustomed" places applies to the Hanford Reach of the Columbia River where it
44 passes through Hanford, and that treaty rights are inalienable rights exercised by tribal members.

45
46 Nevertheless, Tribal governments and DOE disagree over the applicability to the Hanford Site of
47 Tribal-government, treaty-reserved rights to hunt, gather plants, and pasture livestock. Both the
48 Tribal governments and DOE can point to legal justification for their positions in this dispute (see
49 below). As this dispute could take years to resolve, the Tribal governments and DOE have
50 decided not to delay completion and implementation of a comprehensive land-use plan for the
51 Hanford Site while awaiting the resolution of this dispute. Instead, the Tribes and DOE have gone
52 ahead with the land-use planning process while reserving all rights to assert their respective
53 positions regarding treaty rights. Neither the existence of this EIS nor any portion of its contents
54 is intended to have any influence over the resolution of the treaty rights dispute.

1 **Yakama Indian Nation’s View of Tribal Rights**

2
3 The importance of treaty-reserved rights to the Yakama Nation cannot be overstated.
4 Subsistence activities were an indispensable part of the Yakamas’ culture before the arrival of
5 non-Indian settlers. The time-honored relationship between the Yakama people, our lands, and
6 the wildlife and plant resources, has, of necessity, been one of the interdependence “Since Time
7 Immemorial.” In our culture and beliefs, we are an integral part of the lands and water that we
8 occupy. Our very social structure, and religion, are rooted in subsistence activities.
9

10 Over hundreds of generations, the subsistence activities of our people have evolved into attitudes
11 and skills that are highly-honored and respected in our traditional society. Usufructuary
12 harvesting activities remain a substantial underpinning of the economy of the Yakama Tribal
13 members. In an evermore rapidly changing world, traditional subsistence activities continue to
14 mirror the very essence of whom we are – reflecting a lifeway rooted in thousands of years of
15 living in harmony with this landscape where we were originally placed by the Creator. The use of
16 wildlife and plant resources is one significant means by which the Yakama continue to perpetuate
17 the ancestral ways passed down from generation to generation.
18

19 The Yakama Nation does not agree that the body of judicial decisions that discuss “open and
20 unclaimed lands” can be distilled into a simplistic equation to “public lands of any type.” The
21 Treaty Article III reserved rights phrase “open and unclaimed lands” is at one both broader and
22 narrower than such an uncritical characterization.
23

24 For example, the exercise of Treaty Article III hunting rights is permitted on private lands. (See
25 *Washington v. Chambers*, a 1973 case involving the Yakama Treaty of 1855, and the preeminent
26 Washington State case on the issue of “open and unclaimed” lands.) On the other hand, the
27 Yakama Nation recognizes that not all public lands, though arguable “open and unclaimed,” are
28 suitable for the exercise of Treaty hunting rights. The Nation does not believe that is appropriate
29 to hunt on public school grounds, University campuses, hospital grounds, or other lands that are
30 “publically settled” where safety issues may arise.
31

32 The proper test of “open and unclaimed” lands is based on an indicia of occupation; underlying
33 questions of land ownership are both insufficient and inappropriate to the construction of off-
34 reservation Treaty reserved rights. The record of the 1844 Treaty Council proceedings, and also
35 contemporaneous documents of the time, amply shows that the central purpose of the Treaty
36 “open and unclaimed lands” provisions was to segregate the activities of Indians, in continuing to
37 pursue their traditional lifeways on their ancestral lands, from non-Indian settlers. Evidence
38 shows that inclusion of the Treaty “open and unclaimed” language was to allow Indians to hunt on
39 all lands except those occupied by non-Indian settlers. “Settlement,” as Indians would
40 understand the term in Treaty times, required physical occupation, or some actual physical
41 presence on the land, rather than mere paper ownership. It is obvious that this, too, was the
42 understanding and intent of Isaac Stevens. During the 1855 Treaty negotiations, Governor
43 Stevens confirmed to the Indians that the off-reservation Treaty rights were limited only “where
44 the land is actually occupied by a white settler.”
45

46 Thus, outward signs of settlement or physical occupation, such as houses, outbuildings,
47 pasturing animals, etc., would indicate to Indians whether the land had been settled or not. The
48 underlying legal title to the land is irrelevant to a determination of whether land is open or
49 unclaimed. This “outward appearance” test is substantially supported by the court’s decision in
50 *Chambers*. The test is fact specific, comports with long-honored canons of treaty construction,
51 and permits a greater degree of certainty than tests based on the underlying legal status of the
52 land. The Yakama Nation maintains that this view of the Treaty-reserved usufruct better fits with
53 the original intent of all parties to the Treaty to preserve our ancestral and traditional lifeways (YIN
54 1998).

1 **DOE’s View of Tribal Governments’ Rights**

2
3 DOE respectfully disagrees with the Tribes’ reasoning regarding Tribal rights at the Hanford Site.
4 There is substantial documentation that indicates that the Tribes understood at the time of the
5 Treaty signing that lands were no longer “unclaimed” when they were claimed for purposes of the
6 white settlers’ activities. Most of Hanford had been so “claimed” at the time it was acquired for
7 government purposes in 1943. The DOE is not aware of any judicially recognized mechanism
8 which would allow these lands to revert to “unclaimed” status merely through the process of
9 being acquired by the Federal government. The portion of the Hanford Site that remained in the
10 Public Domain in 1943 (those lands now having underlying BLM ownership) arguably could have
11 been considered unclaimed at the time the Hanford Site was established. However, those lands,
12 as well as all of the acquired lands were closed to all access initially under authority of the War
13 Powers Acts and then under the authority of the Atomic Energy Act. In order for the Tribes’ view
14 that these lands should be considered “open” to prevail, a court would have to find that Congress,
15 in enacting the War Powers Acts and the Atomic Energy Act, did not intend to authorize the
16 Executive Branch to close these vital sites to Tribal-government access when it granted plenary
17 authority to restrict access under these laws. It is, therefore, DOE’s position that the Hanford Site
18 lands are neither “open” nor “unclaimed”. Benton County’s government also does not agree with
19 the Tribal view that Hanford lands are “open and unclaimed.”
20

21 Aside from rights reserved by treaty, Tribes have significant other rights under Federal statutes,
22 executive orders, Federal court determinations, and executive branch policies. These include
23 rights concerning cultural resource management, access to religious sites, and the Federal trust
24 responsibility to Indian tribes (see Chapter 7 of the Final HCP EIS).
25

26 **COMMENT CODE**

27 RL199-11
28

29 **LOCATION OF EIS REVISION(S)**

30 S5.5.3; not applicable to Main Volume EIS
31

32 **RESPONSE**

33 Comment accepted. We have changed text in the EIS from “treaty given rights” to “treaty
34 reserved rights.”
35

36 **COMMENT CODE**

37 RL199-12
38

39 **LOCATION OF EIS REVISION(S)**

40 None required.
41

42 **RESPONSE**

43 Development of stabilized dune areas can occur without unintended effects if planned properly.
44 The Horn Rapids golf course and subdivision are located on the same sand dune complex as
45 would be the expansion of the industrial corridor. Stabilizing sand dunes has brought the
46 unintended result of creating endangered species in many parts of the country. Many plants and
47 animals are dependent on an active sand dune system. This type of site-specific advice would
48 be the purpose of the Site Planning Advisory Board (SPAB), following adoption of the
49 Comprehensive Land-Use Plan through the HCP EIS Record of Decision.
50

51 **COMMENT CODE**

52 RL199-13
53

54 **LOCATION OF EIS REVISION(S)**

1 None required.

2
3 **RESPONSE**

4 The DOE agrees that Alternative Two meets the projected needs of Benton County. However,
5 DOE's needs are not so predictable. (Please see DOE's response to comment RL199-08).

6
7 **COMMENT CODE**

8 RL199-14

9
10 **LOCATION OF EIS REVISION(S)**

11 None required.

12
13 **RESPONSE**

14 Not all commenters agree that low-wage agricultural jobs should be eschewed in favor of higher
15 paying industrial jobs. Job satisfaction is a combination of many things. Some would rather work
16 outside with the seasons farming or ranching, as opposed to being in a office or on an assembly
17 line, even if it means lower pay.

18
19 **COMMENT CODE**

20 RL199-15

21
22 **LOCATION OF EIS REVISION(S)**

23 None required.

24
25 **RESPONSE**

26 The Table, left as is, provides more information than the proposed change.

27
28 **COMMENT CODE**

29 RL199-16

30
31 **LOCATION OF EIS REVISION(S)**

32 None required.

33
34 **RESPONSE**

35 Development of stabilized dune areas can occur without unintended effects if planned properly.
36 The Horn Rapids golf course and subdivision are located on the same sand dune complex as
37 would be the expansion of the industrial corridor. Stabilizing sand dunes has brought the
38 unintended result of creating endangered species in many parts of the country. Many plants and
39 animals are dependent on an active sand dune system. This type of site-specific advice would
40 be the purpose of the Site Planning Advisory Board (SPAB), following adoption of the
41 Comprehensive Land-Use Plan through the HCP EIS Record of Decision.

42
43 **COMMENT CODE**

44 RL199-17

45
46 **LOCATION OF EIS REVISION(S)**

47 S5.5.2.4, 5.6.2.4

48
49 **RESPONSE**

50 Comment accepted. The word "many" has been added to the EIS text.

51
52 **COMMENT CODE**

53 RL199-18

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LOCATION OF EIS REVISION(S)

S5.5.2.4, 5.6.2.4

RESPONSE

Comment accepted. The word “many” has been deleted from the EIS text.

COMMENT CODE

RL199-19

LOCATION OF EIS REVISION(S)

Table 6-4

RESPONSE

Please see DOE’s response to comment RL199-04 for management plan hierarchy discussion. The plans mentioned have been added to the Table in the EIS.

COMMENT CODE

RL199-20

LOCATION OF EIS REVISION(S)

Acronym List in the Summary and Main Volume EIS, and S3.4 and 3.3.4

RESPONSE

Comment accepted. ERWM has been added to the EIS acronym list and corrected in the EIS text.

COMMENT CODE

RL199-21

LOCATION OF EIS REVISION(S)

S1.0 and 1.0

RESPONSE

Please see DOE’s response under comment RL199-05.

COMMENT CODE

RL199-22

LOCATION OF EIS REVISION(S)

Not applicable to Summary; 1.1.1

RESPONSE

Comment accepted. The word “contained” has been changed to “contain” in the EIS text.

COMMENT CODE

RL199-23

LOCATION OF EIS REVISION(S)

Foreword in Summary and Main Volume, S1.4, S1.4.1, S.5.5.3, 1.2.5.1, 1.4.2, 1.4.2.1, 7.4, and Appendix D

RESPONSE

1 Comment accepted. The words “tribal government’s” have been changed to “tribal members”
2 where applicable in the EIS text.

3
4 **COMMENT CODE**

5 RL199-24

6
7 **LOCATION OF EIS REVISION(S)**

8 Figures 5-2 to 5-9.

9
10 **RESPONSE**

11 The DOE agrees that a buffer zone for 200 Area groundwater contamination would eventually be
12 established and when this happens, the appropriate institutional controls would be applied.
13 However, because the decision would involve the TPA, the buffer area associated with the
14 Central Plateau geographic area is not shown. Instead, the Central Plateau geographic area
15 represents only the central waste management area and defers the point of compliance for
16 groundwater to TPA processes. Several graphics from the *Hanford Site Groundwater Monitoring*
17 *Report for Fiscal Year 1998* that show modeled groundwater plumes at 2050 have been added to
18 the EIS.

19
20 **COMMENT CODE**

21 RL199-25

22
23 **LOCATION OF EIS REVISION(S)**

24 None required.

25
26 **RESPONSE**

27 The BC Cribs Soil Contamination Area (SCA) is about 80 percent high quality shrub-steppe
28 habitat. The DOE’s policy is to post signs when above background contamination is found. The
29 SCA signs that delineate the BC Cribs SCA are posted along roadways (mainly the Army Loop
30 road) so the signs can be checked without disturbing the vegetation (a convenience posting).
31 The actual contaminated area is about half of the posted area, and the area that would eventually
32 be remediated would probably be about 10 acres out of the 20 square miles posted. The posted
33 area is shown on the Waste Information Database System (WIDS) graphic so people know
34 where it is; however, it does not have the characteristics of a disturbed area so DOE believes
35 that it doesn’t belong as such on the No-Action Alternative.

36
37 **COMMENT CODE**

38 RL199-26

39
40 **LOCATION OF EIS REVISION(S)**

41 None required.

42
43 **RESPONSE**

44 The geologic hazards were considered by DOE. The probability of large movement along the
45 Gable Mountain faults is low, and the probable maximum flood is also questionable given the
46 dams that have contained the Columbia River since the 1948 flood. Development on sand dunes
47 is easily mitigated as evidenced by the Horn Rapids development, LIGO, and FFTF complex.

48
49 **COMMENT CODE**

50 RL199-27

51
52 **LOCATION OF EIS REVISION(S)**

53 None required.

1 **RESPONSE**

2 The bases each agency used to develop their alternatives were listed as assumptions to avoid
3 additional bickering over their legal foundations. The DOE agrees that currently, the fiduciary
4 trust responsibility is incumbent on all Federal agencies as the result of supreme court case law.
5 Because society can change its direction through either Congressional action or a refinement
6 from case law, it still is pragmatic that all agency bases are viewed as assumptions.
7

8 **COMMENT CODE**

9 RL199-28

10
11 **LOCATION OF EIS REVISION(S)**

12 None required.
13

14 **RESPONSE**

15 Development of residually contaminated areas outside the 200 Areas supports the EPA
16 Brownfields Initiative for contaminated areas. Redevelopment could include leasing or selling of
17 idle industrial equipment currently held by DOE, such as has been done for the aluminum
18 extrusion presses in the 300 Area or the locomotive machine shop in the 1100 Area, to laboratory
19 facilities and other infrastructure. Leases for industrial facilities such as the Energy Northwest's
20 reactor or a proposed metal smelter cluster would be encouraged. (EPA, Brownfields Economic
21 Development Initiative, September 1997).
22

23 **COMMENT CODE**

24 RL199-29

25
26 **LOCATION OF EIS REVISION(S)**

27 None required.
28

29 **RESPONSE**

30 Institutional controls could be applied to the Gable Mountain Pond area if it is designated
31 Conservation (Mining) just as easily as if it were designated Preservation. However, it might be
32 easier to implement those institutional controls under Preservation. This is a good example of
33 where the SPAB could help with institutional control issues.
34

35 **COMMENT CODE**

36 RL199-30

37
38 **LOCATION OF EIS REVISION(S)**

39 None required.
40

41 **RESPONSE**

42 The DOE agrees that there are many issues associated with developing the area known as May
43 Junction. However, DOE believes these issues can all be mitigated, and that the May Junction is
44 still desirable because of the railroad and highway infrastructure on-site, the preponderance of
45 cheat grass, isolation from the other facilities, few cultural resources, and the flat terrain.
46

47 **COMMENT CODE**

48 RL199-31

49
50 **LOCATION OF EIS REVISION(S)**

51 None required.
52

53 **RESPONSE**

1 The DOE agrees that there are issues associated with developing the area just as there would be
2 for any development action. However, DOE believes these issues can be mitigated at this site
3 better than they can be mitigated at the sites designated Preservation.
4

5 **COMMENT CODE**

6 RL199-32
7

8 **LOCATION OF EIS REVISION(S)**

9 Acronym List, Summary and Main Volume
10

11 **RESPONSE**

12 We will be consistent with the acronym.
13

14 **COMMENT CODE**

15 RL199-33
16

17 **LOCATION OF EIS REVISION(S)**

18 Not applicable to Summary; 3.3.4.3.2
19

20 **RESPONSE**

21 Comment accepted. We have added "The Nez Perce Tribe supports the designation of the
22 Hanford Reach as a 'wild and scenic' river under Federal control" to the EIS text.
23

24 **COMMENT CODE**

25 RL199-34
26

27 **LOCATION OF EIS REVISION(S)**

28 None required.
29

30 **RESPONSE**

31 The DOE agrees that there are issues associated with developing the area just as there would be
32 for any development action. However, DOE believes these issues can be mitigated at these
33 sites better than they can be mitigated at the sites designated Conservation (Mining) or
34 Preservation.
35

36 **COMMENT CODE**

37 RL199-35
38

39 **LOCATION OF EIS REVISION(S)**

40 None required.
41

42 **RESPONSE**

43 The DOE agrees that local governments are not required to adhere to the same cultural resource
44 protection regulations as is the Federal government. However, the City of Richland and Benton
45 County have had some recent successes in cooperative land-use administration with the CTUIR,
46 and should be commended for their efforts.
47

48 **COMMENT CODE**

49 RL199-36
50

51 **LOCATION OF EIS REVISION(S)**

52 None required.
53

1 **RESPONSE**

2 The local governments believe that the Wahluke 2000 Plan is a balanced plan that returns unique
3 farmlands to the productive tax roles of Grant and Franklin Counties.
4

5 **COMMENT CODE**

6 RL199-37
7

8 **LOCATION OF EIS REVISION(S)**

9 None required.
10

11 **RESPONSE**

12 The Conservation Reserve Program (CRP) is intended to provide farmers with incentives not to
13 farm areas that Federal agencies feel have a better alternative use. These uses can be erosion
14 control (i.e., air and water quality), habitat replacement, or the protection of cultural resources.
15

16 In many arid regions of the west, the marginally productive lands are placed into the CRP.
17 Typical yields are therefore marginal, and the crops are often limited by soil conditions (i.e., sandy
18 or saline) and water availability. Data from the *Sustainability of Alternative Uses of Land*
19 *Released From the Conservation Reserve Program: Hay, Cattle Pasture, and Cereal Cropping*
20 *Enterprises* study published in 1995 by T.C. Griggs et al. at the University of Idaho showed that on
21 land that would normally support 75 bushels/acre of winter wheat, with a annual cropping of a
22 wheat-barley-pea rotation, the farmer would at worst lose \$3 per acre, and at best under a wet
23 summer with good pasture conditions, gain \$84 per acre if cattle prices were good. The range of
24 profits per acre from three alternative farming scenarios was: annual cropping \$-3 to \$48, hay
25 production \$15 to \$76, and pasture grazing \$3 to \$84. Assuming the highest per acre return for
26 CRP land of \$84 per acre for 73,000 acres in 1995, the opportunity cost was \$6,132,000.00.
27

28 **COMMENT CODE**

29 RL199-38
30

31 **LOCATION OF EIS REVISION(S)**

32 None required.
33

34 **RESPONSE**

35 The DOE is aware of the White Bluffs slumping and believes that only a coordinated effort of the
36 SPAB members can solve the problem. Water quality from the Wahluke tailwaters is not as
37 problematic as in the past because the irrigation systems have changed from rill/flood irrigation
38 with wastewater collection systems to just-in-time sprinkler irrigation systems.
39

40 **COMMENT CODE**

41 RL199-39
42

43 **LOCATION OF EIS REVISION(S)**

44 None required.
45

46 **RESPONSE**

47 The DOE agrees that Alternatives One, Two, and Four preserve more areas of the Hanford Site
48 and, thereby, mitigate cultural resources by avoidance of impact. However, Alternatives Two and
49 Four also include treaty reserved rights that include consumptive uses such as pasturing of
50 livestock. Alternative One, therefore, is the environmentally preferred alternative.
51

52 **COMMENT CODE**

53 RL199-40

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LOCATION OF EIS REVISION(S)

S4.2, 4.1.3

RESPONSE

Comment accepted. The following text has been added to the EIS: "All lands in the Hanford area were ceded to the United States by the Treaties of 1855. All Federal agencies and projects, including the Bureau of Reclamation and the BLM, have a Federal trust responsibility to protect the treaty reserved rights of the Tribal members."

COMMENT CODE

RL199-41

LOCATION OF EIS REVISION(S)

None required.

RESPONSE

For the State of Washington, 100 mm of infiltration is small.

COMMENT CODE

RL199-42

LOCATION OF EIS REVISION(S)

Figure 4-13a and Figure 4-13b

RESPONSE

Comment accepted. The figure captions have been changed to add June 1988.

COMMENT CODE

RL199-43

LOCATION OF EIS REVISION(S)

4.3.2.3.2

RESPONSE

Comment accepted. The 100 and 300 Areas have been added to the discussion.

COMMENT CODE

RL199-44

LOCATION OF EIS REVISION(S)

Not applicable to Summary; 4.3.2.4.2

RESPONSE

Comment accepted. New language has been added to the EIS text to indicate that up to six times the amount reported might have leaked.

COMMENT CODE

RL199-45

LOCATION OF EIS REVISION(S)

None required.

1 **RESPONSE**

2 Radioactive and hazardous wastes in the soil column from past intentional liquid waste
3 disposals, unplanned leaks, solid waste burial grounds, and underground tanks at the Hanford
4 Site are potential sources of continuing/future groundwater contamination. Subsurface source
5 characterization and vadose-zone monitoring, using spectral gamma-ray logging, soil-vapor
6 monitoring, and sediment sampling and characterization were conducted during
7 Fiscal Year 1998.

8
9 Two organizations performed borehole-logging surveys at the Hanford Site in FY 1998. MACTEC-
10 ERS conducted single-shell tank vadose-zone characterization (C, BX, S, and TY tank farms)
11 and Waste Management Federal Services, Inc., Northwest Operations (WMNW) conducted
12 vadose-zone monitoring at several past-practice, soil-column-disposal facilities (BY cribs and
13 trenches and Plutonium Finishing Plant liquid disposal facilities). WMNW also performed logging
14 surveys on several new and existing wells for the Hanford Groundwater Monitoring Project. The
15 equipment, calibration, and operating procedures were equivalent for the systems used by both
16 logging organizations, except for administrative and procedural controls for data acquisition and
17 handling as indicated in the following subsections.

18
19 The calibration facilities were constructed for long-term stability and designed to represent
20 subsurface conditions (PNL-9958, PNL-10801). The detection systems were calibrated in these
21 facilities, and corrections were established for differences between the calibration facilities and
22 Hanford Site borehole-construction conditions (WHC-SD-EN-TI-292, WHC-SD-EN-TI-306).
23 Procedures in WMNW-CM-004 (Sections 17.0 and 18.0) governed the subsurface geophysical
24 surveys and the analysis of the resulting raw data. Logging results, including raw and interpreted
25 data, were loaded into a Pacific Northwest National Laboratory database for storage.

26
27 The MACTEC-ERS spectral gamma-ray borehole-logging measurements in the WMAs (tank
28 farms) were conducted in accordance with P-GJPO-1786. Depth profiles, or logs, of radionuclide
29 activities in all boreholes surrounding a tank were produced and stored electronically. The logs
30 were correlated with tank farm gross gamma-ray log data and historical information about each
31 tank, and a tank summary data report was prepared for each tank characterized. The individual
32 tank reports documented the results of the logging in relation to tank-leak history. An interpretive
33 summary tank farm report was prepared for each tank farm to provide a complete assessment
34 and correlation of all vadose-zone-contamination data at a particular tank farm. These data were
35 used to identify sources and to determine the nature and extent of the contamination.

36
37 The MACTEC-ERS logging systems used in the tank farms were calibrated following GJPO-
38 HAN-1. The base calibration was performed using the facilities in Grand Junction, Colorado, and
39 is reported in GJPO-HAN-1. The field calibrations are published biannually, most recently in
40 GJPO-HAN-3.

41
42 Data were recorded by the logging system in accordance with procedures outlined in P-GJPO-
43 1783, Rev. 1 and managed as outlined in MAC-VZCP-1.7.10-1, Rev. 2. Details on other aspects
44 of the project are provided in MAC-VZCP-1.7.3, Rev. 1; MAC-VZCP 1.7.9, Rev. 1; MAC-VZCP-
45 1.7.4, Rev. 1; MAC-VZCP-1.7.10-2, Rev. 1; and MAC-VZCP-1.7.2, Rev. 1.

46
47 The Groundwater Vadose Zone Integration Project is developing a plan to deal with the vadose
48 zone problems.

49
50 **COMMENT CODE**

51 RL199-46

52
53 **LOCATION OF EIS REVISION(S)**

54 4.4.1.2

1 **RESPONSE**
2 Comment accepted. The EIS text has been changed to 21 F.
3
4 **COMMENT CODE**
5 RL199-47
6
7 **LOCATION OF EIS REVISION(S)**
8 None required.
9
10 **RESPONSE**
11 The Composite Map of Level II, Level III, and Level IV Biological Resources would be updated
12 when the Draft Hanford Biological Resources Management Plan (BRMaP) is updated. To update
13 the map before the document is released as a final plan would circumvent the concurrence
14 process.
15
16 **COMMENT CODE**
17 RL199-48
18
19 **LOCATION OF EIS REVISION(S)**
20 None required.
21
22 **RESPONSE**
23 The Draft *Hanford Cultural Resource Management Plan* (CRMP) is still draft from 1989.
24 Although the draft is often updated, updating the date before the document is released as a final
25 plan would circumvent the concurrence process.
26
27 **COMMENT CODE**
28 RL199-49
29
30 **LOCATION OF EIS REVISION(S)**
31 None required.
32
33 **RESPONSE**
34 As there are differences in the text of the Treaties, and as the Treaties are presented in their full
35 text in Appendix A, we will continue to refer the reader to Appendix A.
36
37 **COMMENT CODE**
38 RL199-50
39
40 **LOCATION OF EIS REVISION(S)**
41 Not applicable to Summary; 4.11.3
42
43 **RESPONSE**
44 Comment accepted. The following wording has been added to the EIS text: "This project will
45 account for the entire waste inventory on the Hanford Site. Better understanding of vadose zone
46 transport mechanisms may require land-use restrictions where soil contamination is left at depth
47 after remediation."
48
49 **COMMENT CODE**
50 RL199-51
51
52 **LOCATION OF EIS REVISION(S)**
53 None required.

1 **RESPONSE**

2 Benton County’s analysis for industrial areas was based on a *Growth Management Act* (GMA)
3 formula tied to expected population growth, which is appropriate for areas not impacted by large
4 Federal projects like Hanford. Benton County also recognized the nature of DOE’s missions and
5 tried to accommodate that uncertainty.

6
7 Because of DOE’s Congressionally mandated missions, all of those areas that possess
8 significant biological or cultural resources have been placed into Preservation status under the
9 DOE’s Preferred Alternative in the Final HCP EIS. DOE land use is geared toward development
10 because industrial facilities are the nature of DOE’s Congressionally mandated mission. DOE’s
11 Hanford programmatic missions are to clean up the site under Environmental Management, and
12 to perform science and technology research under Energy Research. Other activities, such as
13 economic development and natural resource stewardship, are secondary missions. Because
14 some of DOE missions require large isolated areas, blending the current programmatic
15 missions with the secondary missions is good business practice. The commitment of large
16 contiguous areas of the Hanford Site for Industrial uses fairly reflects the uncertainty of DOE’s
17 unique Congressionally mandated industrial production missions over a 50 year planning period.
18 The No-Action Alternative shows that DOE currently considers the entire area between the
19 Columbia River and State Highway 240 as “Open Space” (reserved for future development.”
20 Only those areas that possess significant biological or cultural resources have been placed into
21 Preservation status under the DOE’s Preferred Alternative in the Final HCP EIS because of
22 DOE’s Congressionally mandated industrial production mission.

23
24 **COMMENT CODE**

25 RL199-52

26
27 **LOCATION OF EIS REVISION(S)**

28 None required.

29
30 **RESPONSE**

31 The sentence that introduces the subject provides for the Draft *Hanford Cultural Resources*
32 *Management Plan* (CRMP) procedures. Proposed mining or quarrying activities would be
33 controlled through the issuance of special-use permits to be consistent with the CLUP policies,
34 and CLUP implementing procedures requiring the protection of natural and cultural resources.

35
36 **COMMENT CODE**

37 RL199-53

38
39 **LOCATION OF EIS REVISION(S)**

40 None required.

41
42 **RESPONSE**

43 This is an example of the type of issue that DOE believes the Site Planning Advisory Board
44 (SPAB) would assist DOE with before any changes in the land-use plan are considered for an
45 area where deed restrictions or other covenants might be applied. How the Institutional Control
46 Plan would augment the CLUP procedures is a topic DOE expects to take to the SPAB.

47
48 **COMMENT CODE**

49 RL199-54

50
51 **LOCATION OF EIS REVISION(S)**

52 None required.

1 **RESPONSE**

2 The DOE welcomes the ERWM support and thanks ERWM for their efforts in creating and
3 reviewing this EIS. Your technical staff were excellent to work with and your cultural expertise
4 was invaluable. The public supported the Nez Perce Alternative (Alternative Two) second only to
5 DOE's Preferred Alternative with modifications (i.e., inclusion of the entire Wahluke Slope, the
6 ALE Reserve, McGee Ranch, and the riverlands in the proposed wildlife refuge).

7
8 **COMMENT CODE**

9 RL199-55

10
11 **LOCATION OF EIS REVISION(S)**

12 None required.

13
14 **RESPONSE**

15 The Comprehensive Land Use Plan (CLUP) is to set the boundaries for all follow-up Area
16 Management Plans and Resource Management Plans (and other plans, including the Hanford
17 BRMaP and BRMiS). These plans cannot be independent of the CLUP because protection of
18 resources often conflict with each other as well as with the DOE missions. For example, a
19 wildlife biologist might not have the expertise to recognize a cultural site and could inadvertently
20 destroy an artifact by crushing it underfoot while searching for a protected wildlife species. On
21 the other hand, an archaeologist might not have the biological expertise to identify a sensitive
22 species and might inadvertently disturb that species. The same can be said for a fire
23 management officer dealing with an ongoing sagebrush fire. Each resource has its experts and
24 issues. All the issues come together "on the ground." This is why the CLUP's role is an
25 integration function that must have the authority to define the boundaries of the resource
26 management plans, but only where discretionary actions conflict.

27
28 **COMMENT CODE**

29 RL199-56

30
31 **LOCATION OF EIS REVISION(S)**

32 None required.

33
34 **RESPONSE**

35 The Draft *Hanford Cultural Resources Management Plan* (CRMP) is still draft from 1989.
36 Although the draft is often updated, updating the date before the document is final would
37 circumvent the concurrence process.

38
39 **COMMENT CODE**

40 RL199-57

41
42 **LOCATION OF EIS REVISION(S)**

43 S6.3.4, 6.3.4

44
45 **RESPONSE**

46 Comment accepted. The EIS text has been edited to read as follows:

- 47
48 c. Site, plan, and design development to avoid significant impacts on resources.
49 Mitigate unavoidable impacts through design to minimize impacts and mitigation
50 costs associated with biological, cultural, air, and groundwater resources.

51
52 **COMMENT CODE**

53 RL199-58

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LOCATION OF EIS REVISION(S)

None required.

RESPONSE

By having multiple land-use designations on the land use map, there can be multiple land uses.

COMMENT CODE

RL199-59

LOCATION OF EIS REVISION(S)

None required.

RESPONSE

The intrinsic value protection of cultural resources is covered in the previous section, 6.3.3 Protection of Cultural Resources.

COMMENT CODE

RL199-60

LOCATION OF EIS REVISION(S)

None required.

RESPONSE

Please see response to comment RL199-05 (above).

COMMENT CODE

RL199-61

LOCATION OF EIS REVISION(S)

3.3.2.3.5

RESPONSE

NEPA requires that the Federal agency look at all reasonable alternatives. To not discuss the Gable Mountain and Gable Butte sites in Appendix D would put the NEPA decision to not use the culturally significant sites in legal jeopardy. The following section was clear on DOE's choice of alternatives.

Section 5.3.1.2 contains:

The Preferred Alternative would preclude basalt quarrying from basalt outcrops and soil mining from the McGee Ranch. These locations have been identified as the most cost-effective and technically feasible sources of geologic materials for remediation (see Appendix D). The Conservation (Mining) land-use designation under the Preferred Alternative designates an area in the ALE Reserve as an alternative basalt source. Alternative soil mining sites are also available under the Conservation (Mining) land-use designation. Increased haul distances from quarries to remediation sites would increase remediation costs under the Preferred Alternative, as compared to the No-Action Alternative and Alternative Three.

To clarify further, we have made the following changes in the text discussion of the DOE's Preferred Alternative in the Final HCP EIS:

1 **3.3.2.3.5 The Arid Lands Ecology Reserve (ALE Reserve).** Nearly all of the ALE
2 Reserve geographic area would be designated as Preservation. This designation would be
3 consistent with current management practices of the Rattlesnake Hills Research Natural Area
4 and the USFWS permit. A portion of the ALE Reserve would be managed as Conservation
5 (Mining) during the remediation of the Hanford Site because the ALE site has been identified by
6 DOE as the preferred quarry site for basalt rock and silty soil materials that could be required for
7 large waste-management area covers (RCRA caps or the Hanford Barrier) in the Central
8 Plateau. The ALE site was selected for cap materials as a trade-off developed during the
9 cooperating agencies discussions in return for preservation of a wildlife corridor through the
10 McGee Ranch. The McGee Ranch/Umtanum Ridge area had been identified by DOE as the
11 preferred quarry site for basalt rock and silty soil materials that could be required for large waste-
12 management area covers (RCRA caps or the Hanford Barrier) in the Central Plateau (see
13 Appendix D). In addition to the wildlife corridor function, the mature shrub-steppe vegetation
14 structure in the McGee Ranch area has greater wildlife value (i.e., BRMaP Levels III and IV) than
15 the cheat grass (BRMaP Level I) in the ALE Reserve quarry site (see Section 5.1.2). The BRMaP
16 (DOE-RL 1996c) levels of concern run from Level I through Level IV, increasing in biological
17 importance as the numbers increase, with Level I being the level of least importance.
18

19 **COMMENT CODE**

20 RL199-62

21
22 **LOCATION OF EIS REVISION(S)**

23 E-5

24
25 **RESPONSE**

26 Comment accepted. It has been changed.
27

28 **COMMENT CODE**

29 RL200

30
31 **LOCATION OF EIS REVISION(S)**

32 None required.
33

34 **RESPONSE**

35 Future utilization of the Hanford rail system would not be precluded under any of the alternatives
36 of this EIS.
37

38 **COMMENT CODE**

39 RL201-01
40

41 **LOCATION OF EIS REVISION(S)**

42 3.2.3 and Table 6-1, Table 3-1, and Table S-1.
43

44 **RESPONSE**

45 Comment accepted. The definitions have been modified.
46

47 **COMMENT CODE**

48 RL201-02
49

50 **LOCATION OF EIS REVISION(S)**

51 3.2.3, Table 6-1, Table 3-1, and Table S-1.
52

53 **RESPONSE**

1 Comment accepted. The EIS text has been modified to indicate that both large scale and smaller
2 scale research and development would be included. Low-intensity research and development is
3 not excluded under the non research and development land-use designations.
4

5 **COMMENT CODE**

6 RL201-03
7

8 **LOCATION OF EIS REVISION(S)**

9 3.2.3, Table 3-1, Table 6-1 and Table S-1.
10

11 **RESPONSE**

12 Comment accepted. The EIS text has been modified to indicate that both large scale and smaller
13 scale, lower-intensity research and development within Preservation and Conservation areas
14 where such proposals are consistent with the land-use designation.
15

16 **COMMENT CODE**

17 RL201-04
18

19 **LOCATION OF EIS REVISION(S)**

20 3.2.3, Table 3-1, Table 6-1, and Table S-1
21

22 **RESPONSE**

23 Comment accepted. Wording has been added to Section 3.2.3 in the Final HCP EIS to address
24 this. It should be noted that the proposed Hanford Natural and Accelerated Bioremediation
25 Research (NABIR) Field Research Center for a portion of the 100-H area is one of several
26 proposals being considered in an Environmental Assessment being prepared by the DOE Office
27 of Science.
28

29 **COMMENT CODE**

30 RL201-05
31

32 **LOCATION OF EIS REVISION(S)**

33 S6.2, 6.2
34

35 **RESPONSE**

36 Comment accepted. Clarifying text was added to the EIS.
37

38 **COMMENT CODE**

39 RL201-06
40

41 **LOCATION OF EIS REVISION(S)**

42 4.1.2.5
43

44 **RESPONSE**

45 Comment accepted. Text has been added to Section 4.1.2.5 in the Final HCP EIS.
46

47 **COMMENT CODE**

48 RL202-01
49

50 **LOCATION OF EIS REVISION(S)**

51 4.11
52

53 **RESPONSE**

1 The constraints and impacts associated with cleanup are considered as preexisting conditions
2 common to all alternatives and therefore could not be used to discriminate among the
3 alternatives. Further, the TPA decisions that affect cleanup are to include NEPA equivalency or
4 NEPA integrated documentation under DOE's NEPA integration policy.

5
6 As stated in Section 1.3, the CERCLA RODs were considered in developing the land uses
7 (words have been bolded for emphasis):

8
9 *The restrictions posed by approved CERCLA RODs **were taken into consideration** in
10 the development of the land-use alternatives in this Final HCP EIS. Conversely, the
11 land-use alternative selected for implementation in the ROD for this EIS would be useful
12 for remediation decisions **yet to be made** in other areas of the Hanford Site. The EPA,
13 Ecology, and DOE consider land-use designations in a given area when determining
14 cleanup levels. If the desired "highest and best use" land use cannot be attained because
15 of remediation-linked technical or economic constraints, or if the remedial action required
16 to achieve that land use would cause unacceptable-unavoidable impacts, then the land
17 use designation of this EIS would be amended using the policies and implementing
18 procedures in Chapter 6 to the next "highest and best use" land use. If required by the
19 CERCLA ROD/RCRA Permit, a deed restriction would be filed with the local land-use
20 jurisdictional agency to conditionally implement the land use.*

21
22 **COMMENT CODE**

23 RL202-02

24
25 **LOCATION OF EIS REVISION(S)**

26 None required.

27
28 **RESPONSE**

29 Water rights and water-related issues are discussed in Section 4.3.3.1 of the Final HCP EIS.
30 The DOE's Preferred Alternative does not include irrigation, and therefore is not expected to
31 impact in-stream flows. Additional irrigation of the Wahluke Slope under Alternative Three would
32 be accomplished through water conservation in other portions of Columbia Basin Reclamation
33 Project in accordance with the Wahluke 2000 Plan.

34
35 **COMMENT CODE**

36 RL202-03

37
38 **LOCATION OF EIS REVISION(S)**

39 None required.

40
41 **RESPONSE**

42 Use of ground water is treated as a Special Use in the EIS and would therefore have full review by
43 the SPAB before the request was relayed to the TPA regulator.

44
45 **COMMENT CODE**

46 RL202-04

47
48 **LOCATION OF EIS REVISION(S)**

49 Various locations, Chapters 4 and 5

50
51 **RESPONSE**

52 Additional information on groundwater and vadose zone contamination has been added to
53 Chapters 4 and 5. The Emergency Planning Zones (EPZ) and Exclusive Use Zones (EUZ) are
54 linked to meteorological conditions because they depend on interdiction within a short (i.e., hours)

1 time frame. The EUZ is an area designated for operation activities associated with a waste site
2 or facility. Each DOE nuclear facility is required to maintain a public buffer zone where 25 rem
3 would not be exceeded in the event of an unmitigated accident (DOE Order 420.1). The EUZ is
4 reserved for DOE or other hazardous operations with severely restricted public access. This
5 zone extends from the facility fence line to a distance at which threats to the public from routine
6 and accidental releases diminish to the point where public access can be routinely allowed. It is
7 inside the Emergency Planning Zone (EPZ) and is equivalent to the exclusion zone boundary
8 required by DOE's "Comprehensive Emergency Management System Order" (DOE Order
9 151.1). The groundwater buffer zone is discussed in: Section 3.2.5, "Incorporation of the Future
10 Site Uses Working Group's Geographic Study Areas into the Alternatives":

11
12 *The buffer area associated with the Central Plateau geographic area is not shown;*
13 *instead, the Central Plateau geographic area represents only the central waste*
14 *management area and defers the point of compliance for groundwater to the Tri-Party*
15 *Agreement's processes.*

16
17 With respect to expected impacts, the EIS Introduction contains text that explains how
18 residual risk would not be a discriminating factor in the land-use decision:

19
20 *This land-use plan can be used by the regulators to establish goals for the*
21 *CERCLA/RCRA cleanup (i.e., remediation) processes (see Table 1-3). Remediation will*
22 *be conducted under CERCLA/RCRA authority. If the remediation process cannot*
23 *support the proposed land use within the National Contingency Plan's (NCP's) 10⁻⁴ to 10⁻⁶*
24 *risk range, then this EIS contains a proposed process for changing the "highest and best*
25 *use" of the land while maintaining institutional controls (see Chapter 6).*

26 27 **COMMENT CODE**

28 RL202-05

29 30 **LOCATION OF EIS REVISION(S)**

31 None required.

32 33 **RESPONSE**

34 As stated in Section 1.3, the CERCLA RODs were considered in developing the land uses
35 (words have been bolded for emphasis):

36
37 *The restrictions posed by approved CERCLA RODs **were taken into consideration** in*
38 *the development of the land-use alternatives in this Final HCP EIS. Conversely, the*
39 *land-use alternative selected for implementation in the ROD for this EIS would be useful*
40 *for remediation decisions **yet to be made** in other areas of the Hanford Site. The EPA,*
41 *Ecology, and DOE consider land-use designations in a given area when determining*
42 *cleanup levels. If the desired "highest and best use" land use cannot be attained because*
43 *of remediation-linked technical or economic constraints, or if the remedial action required*
44 *to achieve that land use would cause unacceptable-unavoidable impacts, then the land*
45 *use designation of this EIS would be amended using the policies and implementing*
46 *procedures in Chapter 6 to the next "highest and best use" land use. If required by the*
47 *CERCLA ROD/RCRA Permit, a deed restriction would be filed with the local land-use*
48 *jurisdictional agency to conditionally implement the land use.*

49 50 **COMMENT CODE**

51 RL202-06

52 53 **LOCATION OF EIS REVISION(S)**

54 2.0, second bullet.

1 **RESPONSE**

2 Comment accepted. Ecology and DOE have been added to the second bullet as follows:

- 3
- 4 c Support the U.S. Environmental Protection Agency (EPA), Washington State
- 5 Department of Ecology (Ecology), and DOE remediation decision-making
- 6 processes.
- 7

8 **COMMENT CODE**

9 RL202-07

10 **LOCATION OF EIS REVISION(S)**

11 None required.

12

13

14 **RESPONSE**

15 The Washington Department of Fish and Wildlife (WDFW) was not a cooperating agency in the
16 preparation of this EIS. The WDFW participated in support of the counties and the City of
17 Richland which were cooperating agencies as prescribed by the State of Washington’s Growth
18 Management Act. The Growth Management Services Chapter 365-190 of the WAC sets the
19 minimum guidelines to classify agriculture, forest, mineral lands and critical areas. For critical
20 areas WAC 365-190-080 (5) Fish and Wildlife Habitat Conservation Areas (c) Sources and
21 Methods (ii), it is clear that the Counties and Cities determine Wildlife Habitat Conservation
22 Areas:

23

24 *Counties and cities should determine which habitats and species are of local importance.*
25 *Habitats and species may be further classified in terms of their relative importance.*
26 *Counties and cities may use information prepared by the Washington Department of*
27 *Wildlife to classify and designate locally important habitats and species. Priority habitats*
28 *and priority species are being identified by the Department of Wildlife for all lands in*
29 *Washington State. While these priorities are those of the department, they and the data*
30 *on which they are based may be considered by counties and cities.*

31

32 **COMMENT CODE**

33 RL202-08

34

35 **LOCATION OF EIS REVISION(S)**

36 None required.

37

38 **RESPONSE**

39 Yes, the DOE considers the 1975 ERDA 1538 document to be a an environmental impact
40 statement or comparable environmental analysis in which irretrievable and irreversible
41 commitments for those natural resources was made, barring DOE liability for those natural
42 resource damages under Section 107(f) of CERCLA. The intent is to follow the wishes of
43 Congress and the Administration who wrote CERCLA, including the 107(f) exemption.

44

45 **COMMENT CODE**

46 RL202-09

47

48 **LOCATION OF EIS REVISION(S)**

49 4.3.2.2

50

51 **RESPONSE**

52 Comment accepted. The following discussion of major recharge sources has been added to
53 Section 4.3.2.2 of the Final HCP EIS:

1 The major recharge sources of the Hanford and Ringold formations are as follows: inflow
2 from Dry Creek, which average 0.035 cm/s; inflow from Cold Creek, which averages
3 0.028 cm/s; and inflow around Rattlesnake Hills, which averages 0.032 cm/s.
4

5 **COMMENT CODE**

6 RL202-10
7

8 **LOCATION OF EIS REVISION(S)**

9 None required.
10

11 **RESPONSE**

12 Further discussion on competing future demands for Columbia River water, including in-stream
13 flows for salmon recovery, would be only speculation of indirect impacts to changes in land
14 ownership. The CEQ has guidance about uncertainty and how NEPA documents should deal
15 with speculative issues. Specifically, Question 18 of the CEQ's 40 Questions guidance says:
16

17 *Q 18. Uncertainties About Indirect Effects of A Proposal. How should uncertainties about*
18 *indirect effects of a proposal be addressed, for example, in cases of disposal of Federal lands,*
19 *when the identity or plans of future landowners is unknown?*
20

21 *A. The EIS must identify all the indirect effects that are known, and make a good faith effort to*
22 *explain the effects that are not known but are "reasonably foreseeable." Section 1508.8(b). In the*
23 *example, if there is total uncertainty about the identity of future land owners or the nature of future*
24 *land uses, then of course, the agency is not required to engage in speculation or contemplation*
25 *about their future plans. But, in the ordinary course of business, people do make judgments*
26 *based upon reasonably foreseeable occurrences. It will often be possible to consider the likely*
27 *purchasers and the development trends in that area or similar areas in recent years; or the*
28 *likelihood that the land will be used for an energy project, shopping center, subdivision, farm or*
29 *factory. The agency has the responsibility to make an informed judgment, and to estimate future*
30 *impacts on that basis, especially if trends are ascertainable or potential purchasers have made*
31 *themselves known. The agency cannot ignore these uncertain, but probable, effects of its*
32 *decisions.*
33

34 The DOE believes that the effort to establish "reasonably foreseeable" land uses was
35 accomplished by inviting each governmental body that could receive management responsibility
36 for Hanford lands to participate in the preparation of this EIS as a cooperating agency or
37 consulting Tribal government.
38

39 **COMMENT**

40 RL202-11
41

42 **LOCATION OF EIS REVISION(S)**

43 Table 5-14, lines 13 and 14.
44

45 **RESPONSE**

46 Comment accepted. Text addressing the Fast Flux Test Reactor (FFTF) was added to lines 13
47 and 14. The proposed missions being considered for FFTF are consistent with the R&D or
48 Industrial land-use designations. The wastes generated from FFTF operations could come to
49 central Hanford under the existing U.S. Ecology commercial operation, or to a DOE burial ground
50 based on the sponsor of the activity at the time.
51

52 In December 1993, the FFTF was shutdown due largely at that time from determinations that the
53 facility could not continue to operate economically. In April 1995, defueling was completed and
54 usable fuel is stored on site in fuel storage vessels or in the secure vault at the Plutonium

1 Finishing Plant at the Hanford Site. Unusable spent nuclear fuel (SNF) has been thoroughly
2 washed to remove all sodium residuals, dried, and placed in approved, 50-year Interim Storage
3 Casks on the 400 Area Interim Storage Area pad. In November 1995, the reactor was placed in
4 standby mode with the main cooling system operating at approximately 200°C (400°F), to keep
5 the sodium coolant liquid and circulating to maintain DOE's option to restart and operate the
6 reactor in the future. Essential systems, staffing, and support services are being maintained in a
7 manner that will support either timely restart or deactivation of the FFTF. In January 1997, the
8 Secretary of Energy officially directed that the FFTF be maintained in a standby condition while an
9 evaluation was conducted of any future role the facility might have in the DOE's national tritium
10 production strategy. In December 1998, the Secretary determined that the FFTF would not play a
11 role in the nation's tritium production strategy.

12
13 In May 1999, the Secretary announced that the DOE would ask the Pacific Northwest
14 National Laboratory (PNNL) to complete a 90-day study that would resolve outstanding
15 informational needs for the FFTF. Results of this study were completed and documented in a
16 program scoping plan presented by PNNL to the DOE in early August 1999. As a result of this
17 study, the Secretary decided on August 18, 1999, that the DOE would conduct a programmatic
18 National Environmental Policy Act (NEPA) review, including an Environmental Impact Statement,
19 evaluating the potential environmental impacts associated with proposed expansion of
20 infrastructure, including the possible role of the FFTF, for civilian nuclear energy research and
21 development activities; production of isotopes for medical, research, and industrial uses; and
22 production of plutonium-238 for use in advanced radioisotope power systems for future National
23 Aeronautic and Space Administration (NASA) space missions. The Notice of Intent for this
24 programmatic EIS is planned for publication in the Federal Register on September 15, 1999. The
25 Final EIS (FEIS) is planned for completion in the Fall of 2000; a Record of Decision utilizing the
26 NEPA review, including the FEIS, is planned by December 2000.

27
28 **COMMENT**

29 RL202-12

30
31 **LOCATION OF EIS REVISION(S)**

32 Glossary, footnote in Chapter 6, and S6.0

33
34 **RESPONSE**

35 Comment accepted. A definition of "highest and best use" has been added.

36
37 **COMMENT CODE**

38 RL202-13

39
40 **LOCATION OF EIS REVISION(S)**

41 None required.

42
43 **RESPONSE**

44 The BRMaP would be considered a Resource Management Plan and as such is subject to the
45 terms of this EIS's ROD. The Comprehensive Land-Use Plan is to set the boundaries for all of
46 the follow-up Area Management Plans and Resource Management Plans. These plans cannot
47 be independent of the CLUP because protection of resources often conflict with each other as
48 well as the DOE missions. For example, a wildlife biologist might not have the expertise to
49 recognize a cultural site and could inadvertently destroy an artifact by crushing it underfoot while
50 searching for a protected wildlife species. On the other hand, an archaeologist might not have
51 the biological expertise to identify a sensitive species and might inadvertently disturb that species.
52 The same can be said for the fire management officer dealing with an ongoing sagebrush fire.
53 Each resource has its experts and issues. All the issues come together "on the ground." This is

1 why the CLUP's role is an integration function that must have the authority to define the
2 boundaries of the resource management plans, but only where discretionary actions conflict.

3
4 **COMMENT CODE**

5 RL204-01

6
7 **LOCATION OF EIS REVISION(S)**

8 None required.

9
10 **RESPONSE**

11 The DOE also accepted a binder with 922 endorsements for the Wild and Scenic River (with the
12 inclusion of a Wahluke Wildlife Refuge) that was collected for the Department of the Interior's
13 Hanford Reach EIS in 1994. More than 200 request forms for farmland on the Wahluke Slope
14 (also generated for the Hanford Reach EIS in 1994) were accepted in the same spirit. The DOE
15 recorded the names of all the endorsees, but only assigned one comment number to each
16 signature-gathering effort because they occurred before the Revised Draft HRA-EIS was
17 available for comment.

18
19 **COMMENT CODE**

20 RL204-02

21
22 **LOCATION OF EIS REVISION(S)**

23 None required.

24
25 **RESPONSE**

26 It is DOE's belief that the Conservation (Mining) land-use designation would allow the existing
27 wildlife corridors to function just as it would allow the native plant communities to survive.
28 Guidance from the Resource Management Plans would mitigate impacts to these resources.
29 Preservation was only applied if there was some combination of exceptional resource values
30 (e.g., biological and cultural).

31
32 **COMMENT CODE**

33 RL204-03

34
35 **LOCATION OF EIS REVISION(S)**

36 1.3.1

37
38 **RESPONSE**

39 The Riverlands area is also key to the Port of Benton. The Port and the Washington State
40 Department of Transportation and Legislature Transportation Committee, are funding a major
41 study (\$600,000) to determine the feasibility of reconnecting the Hanford main rail line to
42 Ellensburg, WA, as it was in the early 1970s. This rail line would be an alternative route for the
43 current Yakima Valley rail traffic flowing between the Puget Sound and the Tri-Cities. The Yakima
44 Valley route passes directly through all the cities in the Valley, including the cities of Yakima and
45 Kennewick which have many crossing points that continually claim lives and put the larger urban
46 areas at greater risk for accidents. Further, the rail lines historically pass through downtown
47 areas where the cities are planning to develop a more people friendly environment.

48
49 The Port of Benton has expressed a desire to use the Hanford rail system and extend the current
50 system upriver through the Riverlands where there is currently only a railroad grade. Provisions
51 for the reconnection would be made in DOE's permit to the USFWS for management of a
52 national wildlife refuge. The DOE's Preferred Alternative in the Final HCP EIS would not hinder
53 the rail option because the rail connection would be considered a pre-existing, nonconforming
54 use, and was written into the permit allowing the USFWS to manage the area as a National

1 Wildlife Refuge. (The DOE did not remove the rail line; however, the rail and rail ties were
2 inadvertently taken by an adjacent land owner). At this time, DOE has no plans to maintain the
3 northern portions of the existing rail line beyond spraying for noxious weed control.

4
5 **COMMENT CODE**

6 RL204-04

7
8 **LOCATION OF EIS REVISION(S)**

9 None required.

10
11 **RESPONSE**

12 The Nature Conservancy also sent an alternative map in with its comments. While there is merit
13 to using the most current biological information, much of the shrub-steppe habit is temporal in
14 nature (physiographic climax). Therefore, others contend that vegetation potential based on soil
15 mapping (edaphic climax) should be the deciding factor. Some have argued that the Hanford
16 shrub-steppe sagebrush is an artificial disclimax maintained by Hanford fire control policies and
17 the true climax vegetation is the bunch grass community typified by the ALE Reserve. If DOE
18 were to use the most current biological data, the BRMaP Level III and Level IV resources in the
19 McGee Ranch and Riverlands that were recently destroyed by the wildfires would be discounted.

20
21 The Conservation (Mining) land-use designation would allow the existing wildlife corridors to
22 function just as it would allow the native plant communities to survive. Guidance from the
23 Resource Management Plans would mitigate impacts to these resources. Preservation was only
24 applied if there was some combination of exceptional resource values (e.g., biological, cultural,
25 edaphic). This approach allowed Preservation to be applied to the saline vernal pools, the sodic
26 soil greasewood community, the sand dune dependent Indian rice grass community, and other
27 location dependent communities. Still, not all areas with exceptional vegetational structure (i.e.,
28 the 200 West sagebrush stands) are considered appropriate of the Preservation designation.

29
30 **COMMENT CODE**

31 RL204-05

32
33 **LOCATION OF EIS REVISION(S)**

34 None required.

35
36 **RESPONSE**

37 Because of DOE's Congressionally mandated missions, all of those areas that possess
38 significant biological or cultural resources have been placed into Preservation status under the
39 DOE's Preferred Alternative in the Final HCP EIS. DOE land use is geared toward development
40 because industrial facilities are the nature of DOE's Congressionally mandated mission. DOE's
41 Hanford programmatic missions are to clean up the site under Environmental Management, and
42 to perform science and technology research under Energy Research. Other activities, such as
43 economic development and natural resource stewardship, are secondary missions. Because
44 some of DOE missions require large isolated areas, blending the current programmatic
45 missions with the secondary missions is good business practice. The commitment of large
46 contiguous areas of the Hanford Site for Industrial uses fairly reflects the uncertainty of DOE's
47 unique Congressionally mandated industrial production missions over a 50 year planning period.
48 The No-Action Alternative shows that DOE currently considers the entire area between the
49 Columbia River and State Highway 240 as "Open Space" (reserved for future development."
50 Only those areas that possess diverse resources have been placed into Preservation status
51 under the DOE's Preferred Alternative in the Final HCP EIS.

52
53 **COMMENT CODE**

54 RL204-06

1 **LOCATION OF EIS REVISION(S)**

2 None required.

3
4 **RESPONSE**

5 Although having LIGO with its many associated activity restrictions is as close to being
6 designated Preservation as any R&D facility DOE could place there, the commitment of large
7 contiguous areas of the Hanford Site for R&D uses fairly reflects the uncertainty of DOE's unique
8 Congressionally mandated R&D mission as well as DOE's industrial production mission over a
9 50 year planning period.

10
11 **COMMENT CODE**

12 RL204-07

13
14 **LOCATION OF EIS REVISION(S)**

15 None required.

16
17 **RESPONSE**

18 The City of Richland and Benton County's analyses for industrial areas was based on a GMA
19 formula tied to expected population growth, which is appropriate for areas not impacted by large
20 Federal projects like Hanford. The City of Richland's GMA Industrial Area is based on the City's
21 population growth potential. DOE is pleased that Benton County also recognized the nature of
22 DOE's missions and tried to accommodate that uncertainty. DOE's facilities draw workers from
23 Benton, Franklin, Grant, and Walla Walla Counties.

24
25 Because of DOE's Congressionally mandated missions, all of those areas that possess
26 significant biological or cultural resources have been placed into Preservation status under the
27 DOE's Preferred Alternative in the Final HCP EIS. DOE land use is geared toward development
28 because industrial facilities are the nature of DOE's Congressionally mandated mission. DOE's
29 Hanford programmatic missions are to clean up the site under Environmental Management, and
30 to perform science and technology research under Energy Research. Other activities, such as
31 economic development and natural resource stewardship, are secondary missions. Because
32 some of DOE missions require large isolated areas, blending the current programmatic
33 missions with the secondary missions is good business practice. The commitment of large
34 contiguous areas of the Hanford Site for Industrial uses fairly reflects the uncertainty of DOE's
35 unique Congressionally mandated industrial production missions over a 50 year planning period.
36 The No-Action Alternative shows that DOE currently considers the entire area between the
37 Columbia River and State Highway 240 as "Open Space" (reserved for future development.)
38 Only those areas that possess significant biological or cultural resources have been placed into
39 Preservation status under the DOE's Preferred Alternative in the Final HCP EIS because of
40 DOE's Congressionally mandated industrial production mission.

41
42 **COMMENT CODE**

43 RL204-08

44
45 **LOCATION OF EIS REVISION(S)**

46 None required.

47
48 **RESPONSE**

49 All three Hanford avian species that were protected under the Endangered Species Act (ESA) at
50 the time of the writing of the Revised Draft EIS have been placed in the delisting process, and the
51 American peregrine falcon was delisted on August 25, 1999. The other two listed bird species,
52 the bald eagle and the Aleutian Canada goose (proposed for delisting on July 6, and August 3,
53 1999, respectively), might also be removed from the endangered species list in one to two years.
54 The bald eagle is a regular winter resident and forages on dead salmon and waterfowl along the

1 Columbia River; they have not successfully nested on the Hanford Site although they have
2 attempted to for the past several years. The bald eagle (a Federal and Washington State
3 threatened species) is the only Federally listed wildlife species known to regularly use the
4 100 Areas. Bald eagles use groves of trees (e.g., black locust, white poplar, and Siberian elm)
5 along the Hanford Reach for winter perching, night roosts, and nesting sites (DOE-RL 1994b).
6 Buffer zones around primary night roosts and nest sites have been established in consultation
7 with the USFWS. While the night-roost locations are consistent from year to year, the nesting
8 sites have varied and are readjusted in consultation with the USFWS each year (see Figure 4-
9 24).

10 The White Bluffs Landing has several advantages as an access point to the River. It has access
11 on both sides of the river, it is previously disturbed, it is of historical significance, and it is centrally
12 located along the Reach. The advantages of the White Bluffs Landing are many and the delisting
13 of the Bald Eagle could significantly expand the management options.
14

15
16 **COMMENT CODE**

17 RL204-09

18
19 **LOCATION OF EIS REVISION(S)**

20 None required.

21
22 **RESPONSE**

23 The concept of using grazing to control fire danger and the spread of noxious weeds was
24 provided to the DOE by the Washington Department of Fish and Wildlife (WDFW). A
25 Washington State grazing permit (lease #WS-01) was in effect on 9,280 acres of the Wahluke
26 Slope but has been since rescinded. When asked about the permit, the WDFW representative
27 informed the cooperating agencies that the grazing permit was in effect to control fire danger by
28 removing the cheatgrass and, because cheatgrass is a non-native invader, the grazing also
29 helped control noxious weeds. In the State grazing permit (lease #WS-01) the lease says, "The
30 goal of this grazing program is to reduce the amount and vigor of cheatgrass on this site and
31 increase the amount and diversity of perennial vegetation."
32

33 The DOE does not intend to allow commercial grazing on the Hanford Site; however, an attempt
34 to exercise reserved treaty rights by tribal members to pasture livestock on open and unclaimed
35 lands could result in a court decision that could allow uncontrolled tribal grazing on the
36 Hanford Site.
37

38 The DOE agrees that controlled burning is an important part of maintaining a fire-disclimax that
39 many seral-dependent species require. The USFWS has taken the initiative and recruited a full-
40 time Fire Management Officer with the required expertise in controlled burns and stationed the
41 position at the Saddle Mountain National Wildlife Refuge.
42

43 **COMMENT CODE**

44 RL204-10

45
46 **LOCATION OF EIS REVISION(S)**

47 None required.

48
49 **RESPONSE**

50 The use of McGee Ranch as a source of soil material for remediation caps versus its value as a
51 wildlife corridor was discussed extensively by the cooperating agencies. The wildlife biologists
52 believed that the McGee Ranch was key to the corridor between the Army's Yakima Training
53 Center and the Hanford Site. The ALE site also has suitable soils that are less in depth and
54 would therefore require more surface area but, the site also has a below grade basalt source

1 thereby avoiding cultural issues and centralizing the potential cap disturbances to one site with
2 the added benefit of no wildlife corridor issue. Other alternatives to on-site soils (e.g., silt from
3 channel dredging in the Snake River or from removal of dam structures in the basin) could be
4 explored in the future but are at this time considered not reasonable because of their speculative
5 character and transportation cost.

6
7 **COMMENT CODE**

8 RL204-11

9
10 **LOCATION OF EIS REVISION(S)**

11 None required.

12
13 **RESPONSE**

14 During the public comment period on the August 1996 Draft HRA-EIS, several entities formally
15 requested cooperating agency status in developing the Final HCP EIS. These agencies included
16 the DOI, the City of Richland, and Benton and Franklin counties (with whom the State of
17 Washington has placed land-use planning authority under the *Washington Growth Management*
18 *Act of 1990* [GMA]). Each of these agencies has a legal interest in land-use planning at the
19 Hanford Site because each has some responsibility or interest in managing Hanford lands or
20 dependent resources. It is the intent of DOE to limit the SPAB membership to agencies with a
21 legal interest in land-use planning at the Hanford Site.

22
23 The EPA's and Washington Department of Ecology's interest resides in the area of permitting,
24 which is separate from land-use planning. The Growth Management Services Chapter 365-190
25 of the WAC sets the minimum guidelines to classify agriculture, forest, mineral lands, and critical
26 areas. For critical areas WAC 365-190-080 (5) Fish and Wildlife Habitat Conservation Areas (c)
27 Sources and Methods (ii), it is clear that the Counties and Cities determine Wildlife Habitat
28 Conservation Areas:

29
30 *Counties and cities should determine which habitats and species are of local importance.*
31 *Habitats and species may be further classified in terms of their relative importance.*
32 *Counties and cities may use information prepared by the Washington Department of*
33 *Wildlife to classify and designate locally important habitats and species. Priority habitats*
34 *and priority species are being identified by the Department of Wildlife for all lands in*
35 *Washington State. While these priorities are those of the department, they and the data*
36 *on which they are based may be considered by counties and cities.*

37
38 The Washington Department of Fish and Wildlife was invited by Benton County to assist the
39 County during cooperating agency meetings. The DOE is leaving it to the discretion of the SPAB
40 members which agencies would be chosen to invite for support at the SPAB meetings.

41
42 **COMMENT CODE**

43 RL204-12

44
45 **LOCATION OF EIS REVISION(S)**

46 None required.

47
48 **RESPONSE**

49 Your vision is consistent with DOE's vision of the proposed trail. The DOE sees the locating of
50 the trail as an excellent area for SPAB involvement.

51
52 **COMMENT CODE**

53 RL204-13

1 **LOCATION OF EIS REVISION(S)**

2 None required.

3
4 **RESPONSE**

5 The DOE believes the intent of your proposed policy is embodied in Overall Policy (3) which
6 states:

7
8 *Protect and preserve the natural and cultural resources of the Site for the enjoyment,*
9 *education, study and use of future generations.*

10
11 **COMMENT CODE**

12 RL204-14

13
14 **LOCATION OF EIS REVISION(S)**

15 None required.

16
17 **RESPONSE**

18 The DOE agrees that issues for central Hanford are extremely complex. However, the
19 development of the CLUP requires integration with the local land-use agencies because of the
20 central Hanford complexities. Therefore, the planning for Hanford must be a complete and
21 deliberate movement.

22
23 **COMMENT CODE**

24 RL206-01/314-01

25
26 **LOCATION OF EIS REVISION(S)**

27 None required.

28
29 **RESPONSE**

30 The B Reactor would be designated High-Intensity Recreation to allow tourism of the Federally
31 registered landmark consistent with the B Reactor museum proposal. The High-Intensity
32 Recreation area near Vernita Bridge (where the current Washington State rest stop is located)
33 would be expanded across State Highway 240 and to the south to include a boat ramp and other
34 visitor-serving facilities. Because of DOE Environmental Restoration operational concerns, a
35 boat dock at the B Reactor would not be permitted until the Environmental Restoration activities
36 were completed. At that time, the B Reactor Museum Association could apply for the appropriate
37 permits to construct a boat dock.

38
39 **COMMENT CODE**

40 RL206-02/RL314-02

41
42 **LOCATION OF EIS REVISION(S)**

43 None required.

44
45 **RESPONSE**

46 The use of McGee Ranch as a source of soil material for remediation caps versus its value as a
47 wildlife corridor was discussed extensively by the Cooperating Agencies. The wildlife biologists
48 believed that the McGee Ranch was key to the corridor between the Army's Yakima Training
49 Center and the Hanford Site. McGee Ranch is still the preferred technical site because of its
50 deep soils; however; the wildlife biologists from the other agencies were adamant about
51 preserving the corridor. DOE agrees that the ALE vista is outstanding; however, the ALE site
52 also has suitable soils and the mining would only be temporary. Additionally although these soils
53 may be less in depth and would require more surface area, the site also has a below grade basalt

1 source thereby avoiding cultural issues and centralizing the potential cap disturbances to one site
2 with the added benefit of no wildlife corridor issue.

3
4 **COMMENT CODE**

5 RL221-01

6
7 **LOCATION OF EIS REVISION(S)**

8 None required.

9
10 **RESPONSE**

11 The SPAB has representatives from each of the jurisdictional counties that could implement
12 restrictions on river activities. Additionally, under the DOE's Preferred Alternative in the
13 Final HCP EIS, the Columbia River islands and a quarter mile buffer zone would be designated
14 as Preservation to protect cultural and ecological resources. The Preservation land-use
15 designation, by definition, prohibits the use of motorized vehicles (including personal water craft
16 and motor boats) and place restrictions on motorbikes, four wheelers, and off-road vehicles.

17
18 **COMMENT CODE**

19 RL221-02

20
21 **LOCATION OF EIS REVISION(S)**

22 None required.

23
24 **RESPONSE**

25 The DOE's Preferred Alternative allows for a quarter-mile buffer along the river. Further, the
26 active sand dunes north of the Energy Northwest Complex, the Riverlands area east of Vernita
27 Bridge and the whole of the Wahluke Slope would be effectively isolated from consumptive
28 activities.

29
30 **COMMENT CODE**

31 RL221-03

32
33 **LOCATION OF EIS REVISION(S)**

34 None required.

35
36 **RESPONSE**

37 Under DOE's Preferred Alternative in the Final HCP EIS, irrigated agriculture would not be
38 allowed on the Wahluke Slope of the Hanford Site. The Red Zone might require additional
39 studies, however, because of the current conditions that are causing the slumping
40 notwithstanding any action taken for this EIS.

41
42 **COMMENT CODE**

43 RL232

44
45 **LOCATION OF EIS REVISION(S)**

46 None required.

47
48 **RESPONSE**

49 The Department of Energy (DOE) received many comments urging preservation of shrub-steppe
50 habitat. DOE would protect this valuable habitat and would not offer it for sale to individuals in the
51 foreseeable future.

1 El Ministerio de Energía (DOE) recibió muchos comentarios que impulsaban la
2 preservación del hábitat de la arbusto-estepa. DOE protegería este hábitat valioso y no lo
3 ofrecería para la venta a los individuos en el futuro próximo.
4

5 **COMMENT CODE**

6 RL233-01
7

8 **EIS REVISION(S)**

9 None required.
10

11 **RESPONSE**

12 The DOE has been careful to grandfather-in current DOE commitments such as the Energy
13 Northwest lease, water intake structures, and Emergency Protection Zone (EPZ) and powerline
14 distribution infrastructure (see Policies, Chapter 6). Energy Northwest should be aware,
15 however, that future development outside of the current lease should be closely coordinated with
16 the DOE Real Estate Officer (REO) and the cooperating agencies, such as Benton County.
17

18 **COMMENT CODE**

19 RL233-02
20

21 **EIS REVISION(S)**

22 None required.
23

24 **RESPONSE**

25 The DOE believes that its Preferred Alternative in the Final HCP EIS supports industrial
26 development along the southern corridor while still protecting some unique cultural and biological
27 resources south of the Energy Northwest facilities.
28

29 **COMMENT CODE**

30 RL240, RL241
31

32 **LOCATION OF EIS REVISION(S)**

33 None required.
34

35 **RESPONSE**

36 The DOE has an appreciation for the planning and preparation that was put into the Hanford
37 Reach Protection and Management Plan. The DOE plans to use this HCP EIS, which has been
38 through a public review process, for its planning efforts.
39

40 **COMMENT CODE**

41 RL270-01
42

43 **LOCATION OF EIS REVISION(S)**

44 None required.
45

46 **RESPONSE**

47 We have added to the Final HCP EIS several groundwater contamination plume maps as
48 expected in the year 2050. The protection of the public would be assured by the TPA process
49 where the probabilistic risk of cancer death would be set at 1 in ten-thousand to 1 in one-million
50 depending on the conditions of the ROD. Currently, the Hanford site is cleaning up to about a 250
51 mrem dose. In Spokane, because of the granitic batholith that you live on, the annual dose you
52 receive from naturally occurring radon is anywhere from 400 mrem to 600 mrem.
53

1 As for the 56 hour risk scenario, the risk results that were shown at the Spokane public hearing
2 were from the Agriculture scenario in the 1996 Draft HRA EIS which assumed living on the site
3 full time (8,760 hours), drinking the contaminated groundwater without any cleanup, and growing
4 crops in the contaminated soil. The Superfund Public Health Evaluation Manual from EPA has
5 several risk scenarios. One of the other scenarios used in the 1996 EIS was the recreational
6 scenario based on a one week (seven-day) vacation where the vacationer spent eight hours on
7 the site. That vacation resulted in a 56 hour scenario. It was just one scenario in four presented
8 in the 1996 Draft HRA EIS for comparison of figures and not as DOE's answer to remediation of
9 Hanford as it has been suggested. In fact, DOE does not make the remediation decision but only
10 suggests a course of action that EPA and Ecology can accept or reject through the TPA process.

11
12 **COMMENT CODE**

13 RL270-02

14
15 **LOCATION OF EIS REVISION(S)**

16 None required.

17
18 **RESPONSE**

19 There are several plans which are publicly available. The *Hanford Strategic Plan* is a planning
20 document that articulates DOE's vision and commitments to a long-range strategic direction for
21 the Hanford Site missions. Decisions and actions are made using NEPA, CERCLA, RCRA, and
22 recognized processes as appropriate.

23
24 A revision of the *2006 Plan, Accelerating Cleanup: Paths to Closure* builds on an already
25 accelerated pace of activities and numerous efficiencies implemented at the Hanford Site during
26 the last few years. It commits to significant clean-up progress on the Site by 2006, while
27 recognizing that much clean-up effort would remain beyond 2006.

28
29 The *Hanford Site Ground-Water Protection Management Plan*, and *Management and Integration*
30 *of Hanford Site Groundwater and Vadose Zone Activities* documents both provide management
31 and protection guidelines to protect groundwater from radioactive and nonradioactive hazardous
32 substances.

33
34 This Final HCP EIS builds on these past planning efforts to address land-use planning at the
35 Hanford Site, and presents a range of alternative land uses that represents different visions.

36
37 **COMMENT CODE**

38 RL288

39
40 **LOCATION OF EIS REVISION(S)**

41 None required.

42
43 **RESPONSE**

44 Because of DOE's Congressionally mandated missions, all of those areas that possess
45 significant biological or cultural resources have been placed into Preservation status under the
46 DOE's Preferred Alternative in the Final HCP EIS. DOE land use is geared toward development
47 because industrial facilities are the nature of DOE's Congressionally mandated mission. DOE's
48 Hanford programmatic missions are to clean up the site under Environmental Management, and
49 to perform science and technology research under Energy Research. Other activities, such as
50 economic development and natural resource stewardship, are secondary missions. Because
51 some of DOE missions require large isolated areas, blending the current programmatic
52 missions with the secondary missions is good business practice. The commitment of large
53 contiguous areas of the Hanford Site for Industrial uses fairly reflects the uncertainty of DOE's
54 unique Congressionally mandated industrial production missions over a 50 year planning period.

1 The No-Action Alternative shows that DOE currently considers the entire area between the
2 Columbia River and State Highway 240 as “Open Space” (reserved for future development.”
3 Only those areas that possess significant biological or cultural resources have been placed into
4 Preservation status under the DOE Preferred Alternative because of DOE’s Congressionally
5 mandated industrial production mission. The first quarter mile is associated with the riverine
6 habitat and is preserved. Preserving a mile inland is not justified by the current biological
7 resources there because they are former farm fields that have a predominate cover of
8 cheatgrass.
9

10 **COMMENT CODE**

11 RL290-01
12

13 **LOCATION OF EIS REVISION(S)**

14 None required.
15

16 **RESPONSE**

17 The DOE disagrees with the comment. The Secretary’s April 1999 announcement – that, under
18 the DOE’s Preferred Alternative, the Wahluke Slope would become a wildlife refuge managed by
19 the USFWS is both consistent with NEPA and the Department’s previous expressions on this
20 issue. Since the Department began working on the HRA-EIS, it has consistently supported a
21 preference for managing the Wahluke Slope as a wildlife refuge under the USFWS. This position
22 was articulated in the August 1996 Draft HRA-EIS. It was also articulated in the 1994 Hanford
23 Reach Final EIS prepared by DOI, in which DOE concurred.
24

25 The Secretary’s announcement of the DOE’s Preferred Alternative was also consistent with
26 NEPA, which requires the Department to identify its preferred alternative, if one exists, in a draft
27 EIS unless another law prohibits expression of such a preference (40 CFR 1502.14[e]). Further,
28 the Secretary made it clear in his announcement that the Department would be seeking (and did
29 seek) public comment on this Preferred Alternative. The majority of those comments strongly
30 supported the DOE’s Preferred Alternative for the Wahluke Slope.
31

32 Finally, the Secretary’s announcement did not represent an irreversible commitment on the part
33 of DOE. The announcement by the USFWS and WDFW at the same time as the Secretary’s
34 announcement merely indicated that the two Departments planned to adjust their management
35 responsibilities for the Wahluke Slope in accordance with the terms of the 1971 agreement with
36 DOE for management of the Slope. The land use for the Wahluke Slope remains essentially
37 unchanged; only the land manager would change. This type of change is permissible under
38 DOE’s NEPA regulations.
39

40 **COMMENT CODE**

41 RL290-02
42

43 **LOCATION OF EIS REVISION(S)**

44 None required.
45

46 **RESPONSE**

47 The DOE pays local governments payment in lieu of taxes (PILT). (Please see the PILT
48 response in the summary section of this comment response document.)
49

50 **COMMENT CODE**

51 RL290-03
52

53 **LOCATION OF EIS REVISION(S)**

1 None required.
2

3 **RESPONSE**

4 The DOE agrees that Alternatives One and Two fail to adequately plan for future DOE Missions;
5 however, no such requirement was placed on the cooperating agencies and, in fact, the agencies
6 were encouraged to express their planning assumptions. Alternatives One and Two did not
7 contain a future expectation that DOE would have a strong ongoing mission other than
8 Environmental Management in the Central Plateau.
9

10 Benton County's analysis for industrial areas was based on a GMA formula tied to expected
11 population growth, which is appropriate for areas not impacted by large Federal projects like
12 Hanford. The DOE is pleased that Benton County also recognizes the nature of DOE's missions
13 and tried to accommodate that uncertainty.
14

15 Because of DOE's Congressionally mandated missions, all of those areas that possess
16 significant biological or cultural resources have been placed into Preservation status under the
17 DOE's Preferred Alternative in the Final HCP EIS. DOE land use is geared toward development
18 because industrial facilities are the nature of DOE's Congressionally mandated mission. DOE's
19 Hanford programmatic missions are to clean up the site under Environmental Management, and
20 to perform science and technology research under Energy Research. Other activities, such as
21 economic development and natural resource stewardship, are secondary missions. Because
22 some of DOE missions require large isolated areas, blending the current programmatic
23 missions with the secondary missions is good business practice. The commitment of large
24 contiguous areas of the Hanford Site for Industrial uses fairly reflects the uncertainty of DOE's
25 unique Congressionally mandated industrial production missions over a 50 year planning period.
26 The No-Action Alternative shows that DOE currently considers the entire area between the
27 Columbia River and State Highway 240 as "Open Space" (reserved for future development."
28 Only those areas that possess significant biological or cultural resources have been placed into
29 Preservation status under the DOE's Preferred Alternative in the Final HCP EIS because of
30 DOE's Congressionally mandated industrial production mission.
31

32 In an effort to diversify the Benton County area, DOE has expanded the area of High-Intensity
33 Recreation on its Preferred Alternative in the Final HCP EIS to include Benton County's proposal
34 to provide a visitor-serving facility near the Horn Rapids Regional Park at the intersection of
35 Highway 240 and the Benton City road (10N, 27E, S3). Additionally, DOE has added ALE, McGee
36 Ranch, and the riverlands to the proposed Arid Lands National Wildlife Refuge to attract more
37 visitors to the area. The DOE does believe that its Preferred Alternative, as presented in the Final
38 HCP EIS, blends with the socioeconomic fabric of the larger region and is, in fact, a key factor in
39 the region's economic future.
40

41 **COMMENT CODE**

42 RL290-04
43

44 **LOCATION OF EIS REVISION(S)**

45 Beginning with the Cover, and then throughout the EIS and Summary
46

47 **RESPONSE**

48 Public support for changing the name from the HRA-EIS was very good. Thus, the name of the
49 final document has been changed to the Hanford Comprehensive Land-Use Plan EIS (HCP EIS).
50

51 **COMMENT CODE**

52 RL290-05
53

54 **LOCATION OF EIS REVISION(S)**

1 **RESPONSE**

2 The DOE agrees that the SPAB would be integral to the forming of an Institutional Control Plan.
3 The Institutional Control Plan has been added to Table 6-4, and integrated into what DOE is
4 calling its long-term stewardship planning.
5

6 **COMMENT CODE**

7 RL290-06
8

9 **LOCATION OF EIS REVISION(S)**

10 None required.
11

12 **RESPONSE**

13 The DOE agrees that early on, there was confusion over the purpose of the EIS. However, in the
14 Introduction (below) it is clear what the purpose of this EIS is, with respect to land transfers.
15

16 *This CLUP's authority is limited to as long as DOE retains legal control of some portion of the*
17 *real estate. This EIS does not contain any new mechanisms or preferences regarding the*
18 *transfer of land, but with the input from the cooperating agencies and consulting Tribal*
19 *governments, this EIS will continue to be useful for considering proposals regarding Hanford*
20 *lands that might be transferred beyond the control of DOE. This EIS is not focused on land*
21 *transfer, but rather speak to the integrated use and management of land and resources*
22 *independent of who owns the land. Land transfer is a complicated and separate process from the*
23 *CLUP and once property leaves DOE control, DOE has no more authority over the use of that*
24 *land unless the property was conveyed with deed or other legal restrictions. For more information*
25 *about the process for transferring property, see Section 1.4.3.*
26

27 **COMMENT CODE**

28 RL290-07
29

30 **LOCATION OF EIS REVISION(S)**

31 None required.
32

33 **RESPONSE**

34 The DOE believes that the following section from the EIS adequately explained the requirement to
35 obtain locally administered permits where applicable:
36

37 **6.5 Use Requests for Non-Federal Projects**
38

39 *Proponents and entities of non-Federal projects shall follow the approval process for Use*
40 *Requests onsite (Section 6.4). The county, city or private entity will be invited to cooperate early*
41 *in the Use Request and in the NEPA review process (Figure 6-2). Use Requests for non-Federal*
42 *projects involving new construction shall be required to comply with applicable local county and/or*
43 *city review and permitting requirements such as compliance with the Uniform Building Code*
44 *(UBC), health district requirements, shoreline permits, and local air authority standards.*
45

46 **COMMENT CODE**

47 RL290-08
48

49 **LOCATION OF EIS REVISION(S)**

50 None required.
51

52 **RESPONSE**

1 The DOE believes that the *Hanford Strategic Plan* represents the planning vision that existed
2 when the plan was adopted. There is a map with land uses such as “Open Space Reserved”
3 that is part of the Strategic Plan that would be updated to incorporate the ROD. The introduction
4 to the DOE’s Preferred Alternative in the Final HCP EIS reads as follows:
5

6 **3.3.2.1 Planning Goals, Objectives, and Values (Vision).** *Much like the No-Action Alternative,*
7 *DOE’s Preferred Alternative was developed based on policies that are consistent with the*
8 *Hanford Strategic Plan (DOE-RL 1996b). However, unlike the No-Action Alternative, DOE’s*
9 *Preferred Alternative would establish policies and implementing procedures that would place*
10 *Hanford’s land-use planning decisions in a regional context.*

11
12 **COMMENT CODE**

13 RL291-01

14
15 **LOCATION OF EIS REVISION(S)**

16 None required.

17
18 **RESPONSE**

19 The DOE agrees with your values and DOE agrees that one of the most demanding
20 predicaments about decision making is when two recognized values (3 and 4) conflict with each
21 other (e.g., the treaty reserved rights to hunt, fish, and pasture livestock must be weighed against
22 the preservation of biological and ecological values). Because of inherent value conflicts, DOE
23 realized that a SPAB would be required almost immediately to work the conflicting values issues.
24 The DOE expects to the SPAB to seek the counsel of the Hanford Advisory Board on
25 controversial issues, and to look for input from the Oregon’s Office of Energy as well.
26

27 **COMMENT CODE**

28 RL291-02

29
30 **LOCATION OF EIS REVISION(S)**

31 Table 6-4

32
33 **RESPONSE**

34 The DOE attempted to quantify institutional control costs in the August 1996 Draft HRA-EIS. The
35 result was poorly accepted due to the uncertainty of the CERCLA RODs and RCRA permit
36 modifications that needed to be (and still need to be) finished. When DOE agreed to revise the
37 Draft HRA-EIS and to focus on land-use issues, one of the decision factors was the new policy of
38 integrating NEPA/CERCLA/RCRA documents. Because each TPA decision would be made
39 independent of this EIS, the land-use plan has been designed to be able to respond to TPA
40 decisions. The DOE has begun its Stewardship Initiative, and in the Final HCP EIS, DOE has
41 added “Institutional Control Plan” to the list of Area Management Plans which would need to be
42 developed (see Chapter 6).
43

44 **COMMENT CODE**

45 RL291-03

46
47 **LOCATION OF EIS REVISION(S)**

48 None required.

49
50 **RESPONSE**

51 Section 1.3 of the Final HCP EIS contains the following discussion on how this ROD would be
52 integrated with the TPA decisions:
53

1 The restrictions posed by approved CERCLA RODs were taken into consideration in the
2 development of the land-use alternatives in this Final HCP EIS. Conversely, the land-use
3 alternative selected for implementation in the ROD for this EIS would be useful for remediation
4 decisions yet to be made in other areas of the Hanford Site. The EPA, Ecology, and DOE
5 consider land-use designations in a given area when determining clean-up levels. If the desired
6 “highest and best use” land use cannot be attained because of remediation-linked technical or
7 economic constraints, or if the remedial action required to achieve that land use would cause
8 unacceptable-unavoidable impacts, then the land use designation of this EIS would be amended
9 using the policies and implementing procedures in Chapter 6 to the next “highest and best use”
10 land use. If required by the CERCLA ROD/RCRA Permit, a deed restriction would be filed with
11 the local land-use jurisdictional agency to conditionally implement the land use.

12
13 **COMMENT CODE**

14 RL291-04

15
16 **LOCATION OF EIS REVISION(S)**

17 Table 3-4

18
19 **RESPONSE**

20 The DOE has made some adjustments in the Final HCP EIS to reflect the issue of magnitude in
21 Table 3-4.

22
23 **COMMENT CODE**

24 RL291-05

25
26 **LOCATION OF EIS REVISION(S)**

27 None required.

28
29 **RESPONSE**

30 During the public comment period on the August 1996 Draft HRA-EIS, several entities formally
31 requested cooperating agency status in developing the Final HCP EIS. These agencies included
32 the DOI, the City of Richland, and Benton and Franklin counties (with whom the State of
33 Washington has placed land-use planning authority under the *Washington Growth Management*
34 *Act of 1990* [GMA]). Each of these agencies has a legal interest in land-use planning at the
35 Hanford Site because each has some responsibility or interest in managing Hanford lands or
36 dependent resources. It is the intent of DOE to limit the membership to agencies with a legal
37 interest in land-use planning at the Hanford Site.

38
39 Because of inherent value conflicts, DOE realized that a SPAB would be required almost
40 immediately to work the conflicting values issues. The DOE expects the SPAB to seek the
41 counsel of the Hanford Advisory Board on controversial issues, and to look for input from the
42 Oregon’s Office of Energy as well.

43
44 **COMMENT CODE**

45 RL291-06

46
47 **LOCATION OF EIS REVISION(S)**

48 None required.

49
50 **RESPONSE**

51 Ongoing cultural resource inventories and surveys maintain the quality of historic and
52 archaeological sites, identify new sites, and document existing sites. The depth of cultural
53 resource investigation is usually limited by the need to protect the resource. The extinct river
54 channels that were filled in during the Pleistocene floods place the cultural resources below the

1 proposed disturbance and are, therefore, protected from disturbance by depth. The Draft
2 *Hanford Cultural Resources Management Plan* (which was approved by the State Historic
3 Preservation Office in 1989), was developed to establish guidance for the identification,
4 evaluation, recordation, curation, and management of archaeological, historic, and traditional
5 cultural resources as individual entities or as contributing properties within a district. The plan
6 specifies methods of consultation with affected Tribes and Tribal Historic Preservation Officers,
7 government agencies, and interested parties; and includes strategies for the preservation and/or
8 curation of representative properties, archives, and objects.
9

10 **COMMENT CODE**

11 RL291-07
12

13 **LOCATION OF EIS REVISION(S)**

14 None required.
15

16 **RESPONSE**

17 The Comprehensive Land-Use Plan (CLUP) is to set the boundaries for all follow-up Area
18 Management Plans and Resource Management Plans. These plans cannot be independent of
19 the CLUP because protection of resources often conflict with each other, as well as with DOE
20 missions. For example, a wildlife biologist might not have the expertise to recognize a cultural
21 site and could inadvertently destroy an artifact by crushing it underfoot while searching for a
22 protected wildlife species. On the other hand, an archaeologist might not have the biological
23 expertise to identify a sensitive species and might inadvertently disturb that species. The same
24 can be said for a fire management officer dealing with an ongoing sagebrush fire. Each resource
25 has its experts and issues. All the issues come together “on the ground.” This is why the
26 CLUP’s role is an integration function that must have the authority to define the boundaries of the
27 resource management plans, but only where discretionary actions conflict.
28
29

30 **COMMENT CODE**

31 RL293
32

33 **LOCATION OF EIS REVISION(S)**

34 None required.
35

36 **RESPONSE**

37 Please see response to comment RL291-06.
38

39 **COMMENT CODE**

40 RL304-01/RL328-01
41

42 **LOCATION OF EIS REVISION(S)**

43 None required.
44

45 **RESPONSE**

46 The DOE supports the economic development mission. In the EIS we stated:

47
48 *For the economic development mission – allow industrial development in the eastern and*
49 *southern portions of Hanford and increase recreational access to the Columbia River.*

50
51 *Capture economic development opportunities locally.*
52

1 The DOE has also taken action. The DOE's transfer of the 1100 Area to the Port of Benton for
2 economic development was approved through an interim action Environmental Assessment
3 (EA). The DOE prepared an EA that resulted in a finding of no significant impact (FONSI) on
4 August 27, 1998, transferring the 1100 Area and the Southern rail connection to the Port of
5 Benton (DOE/RL EA-1260). Although the 1100 Area is no longer under DOE control, it is
6 included in this EIS to support the local governments with their SEPA EIS analyses of the Hanford
7 sub-area of Benton County under the State of Washington's Growth Management Act.
8

9 The Port of Benton officially took ownership and control of the "1100 Area" (consisting of 786
10 acres, 26 buildings, and 16 miles of rail tract) on October 1, 1998. Together with the Washington
11 State Department of Transportation and Legislature Transportation Committee, the Port is
12 funding a major study (\$600,000) to determine the feasibility of reconnecting the Hanford main rail
13 line to Ellensburg, WA, as it was in the 1970s, as an alternative route for Yakima Valley rail traffic
14 flowing between the Puget Sound and the Tri-Cities. The current Yakima Valley route passes
15 directly through all the cities in the Valley, including the cities of Yakima and Kennewick which
16 have plans to develop their downtown areas to be more people friendly.
17

18 The Port of Benton has expressed a desire to use the Hanford rail system and extend the current
19 system upriver where there is currently only a railroad grade. Provisions for the reconnection
20 would be made in DOE's permit to the USFWS for management of a national wildlife refuge. The
21 DOE's Preferred Alternative as presented in the Final HCP EIS would not hinder the rail option
22 because the rail connection would be considered a pre-existing, nonconforming use and written
23 into the permit allowing the USFWS to manage the area as a Wildlife Refuge. (The DOE did not
24 remove the rail line; however, the rail and rail ties were inadvertently taken by an adjacent land
25 owner.) The DOE has no plans at this time to maintain the northern portions of the existing rail
26 line beyond spraying for noxious weed control.
27

28 **COMMENT CODE**

29 RL304-02/RL328-02
30

31 **LOCATION OF EIS REVISION(S)**

32 None required.
33

34 **RESPONSE**

35 While DOE appreciates the commenter's proposed additions to the CLUP policies, we find that
36 estimating societal values and balancing them against societal costs is an extremely difficult task
37 for an agency to attempt. Societal balancing decisions are best left to the political representatives
38 and their machinations (as we suggest in our EIS Chapter 3 discussion of "Opportunities and
39 Constraints," below). This EIS would provide the information that the politically appointed
40 policymakers would use to choose the societal decision through the DOE's ROD.
41

42 *In land-use planning, existing conditions offer a mix of "opportunities and constraints."
43 Not all opportunities are equally viable at a specific point in time. And, few constraints are
44 insurmountable given today's engineering and construction capabilities.*

45
46 *For example, shorelines of navigable water bodies typically have constraints to
47 development because of potential flooding, geologic instability, bank erosion, wildlife
48 habitat, and cultural resources. However, shorelines also offer excellent opportunities for
49 enhancing recreation, cultural resources, fishery habitat, and water quality. These
50 shorelines also are unique in that siting of needed water "dependent" and water "related"
51 developments that cannot be an opportunity (physically located) in upland landscapes.*

52
53 *Landscapes with few or no constraints present the greatest challenges because they
54 represent boundless opportunities with no hint as to their inherent suitability for one land*

1 use or another. Consequently, unless a site's suitability for a particular land use is
2 narrowly prescribed by law (e.g., wetlands are protected for biological and water quality
3 needs), the land-use decision is fundamentally value driven. Therefore, when the
4 opportunities and constraints of a particular landscape are analyzed together, the
5 "suitability" for different land uses can be compared and contrasted for an informed and
6 value-driven decision.

7
8 **COMMENT CODE**

9 RL314-01/RL206-01

10
11 **LOCATION OF EIS REVISION(S)**

12 None required.

13
14 **RESPONSE**

15 The B Reactor would be designated High-Intensity Recreation to allow tourism of the Federally
16 registered landmark consistent with the B Reactor museum proposal. The High-Intensity
17 Recreation area near Vernita Bridge (where the current Washington State rest stop is located)
18 would be expanded across State Highway 240 and to the south to include a boat ramp and other
19 visitor-serving facilities. Because of DOE Environmental Restoration operational concerns, a
20 boat dock at the B Reactor would not be permitted until the Environmental Restoration activities
21 were completed. At that time, the B Reactor Museum Association could apply for the appropriate
22 permits to construct a boat dock.

23
24 **COMMENT CODE**

25 RL314-02/RL206-02

26
27 **LOCATION OF EIS REVISION(S)**

28 None required.

29
30 **RESPONSE**

31 The use of McGee Ranch as a source of soil material for remediation caps versus its value as a
32 wildlife corridor was discussed extensively by the Cooperating Agencies. The wildlife biologists
33 believed that the McGee Ranch was key to the corridor between the Army's Yakima Training
34 Center and the Hanford Site. The ALE site also has suitable soils that are less in depth and
35 would therefore require more surface area but, the site also has a below grade basalt source
36 thereby avoiding cultural issues and centralizing the potential cap disturbances to one site with
37 the added benefit of no wildlife corridor issue.

38
39 **COMMENT CODE**

40 RL317-01

41
42 **LOCATION OF EIS REVISION(S)**

43 None required.

44
45 **RESPONSE**

46 The 1996 Draft HRA-EIS was not universally condemned. It received an EC-2 rating from the
47 Environmental Protection Agency, which is a very common rating for EISs.

48
49 **COMMENT CODE**

50 RL317-02

51
52 **LOCATION OF EIS REVISION(S)**

53 None required.

1 **RESPONSE**

2 The August 1996 Draft HRA-EIS did not assert that it could set cleanup levels or designate future
3 site use scenarios. The August 1996 Draft HRA-EIS simply looked at the environmental impacts
4 of using four alternative-use scenarios (recreational, industrial, residential, and agricultural) based
5 on an approved TPA scenario development document.
6

7 **COMMENT CODE**

8 RL317-03
9

10 **LOCATION OF EIS REVISION(S)**

11 None required.
12

13 **RESPONSE**

14 With respect to the DOE's Preferred Alternative map, the site is already open to mining and
15 grazing activities. The CLUP closes almost half of the site for these activities. One of the most
16 contentious reserved treaty rights that DOE (as a Natural Resource Trustee) and the Tribal
17 Nations discuss is the treaty reserved right to pasture livestock. The natural gas (mineral rights)
18 that DOE does not preserve on ALE are owned by a private entity. And, the Industrial-Exclusive
19 use boundary has not been expanded (as the comment states). The boundary is the same as
20 that in the Future Site Uses Working Group Report.
21

22 **COMMENT CODE**

23 RL317-04
24

25 **LOCATION OF EIS REVISION(S)**

26 None required.
27

28 **RESPONSE**

29 The DOE believes that the TPA process would adequately protect the public from Hanford's past
30 and future operations.
31

32 **COMMENT CODE**

33 RL317-05
34

35 **LOCATION OF EIS REVISION(S)**

36 None required.
37

38 **RESPONSE**

39 The DOE believes that its Strategic Plan fairly reflects DOE's Congressionally mandated
40 missions.
41

42 **COMMENT CODE**

43 RL317-06
44

45 **LOCATION OF EIS REVISION(S)**

46 None required.
47

48 **RESPONSE**

49 The Final HCP EIS focuses on land-use impacts and decisions rather than potential remediation
50 impacts. Remediation impacts are left to the NEPA/CERCLA/RCRA integrated documents
51 developed under the TPA.
52

53 **COMMENT CODE**

1 RL317-07

2
3 **LOCATION OF EIS REVISION(S)**

4 None required.

5
6 **RESPONSE**

7 The comment appears to be based on a mathematical error. Three pounds of fish consumed
8 per week is equal to 1.36 kg, and given 52 weeks in a year, 71 kg of fish per year, or one fifth of
9 the number quoted in the comment.

10
11 Aside from the error, the recently completed *Screening Assessment and Requirements for a*
12 *Comprehensive Assessment, Columbia River Comprehensive Impact Assessment (CRCIA)*
13 (DOE 1998a) evaluated both chemical and radiological health risk potential for a variety of
14 Hanford Site use scenarios. This assessment focused on the Columbia River and riparian zone
15 and included several Native American subsistence scenarios (e.g., subsistence resident, upland
16 hunter, river-focused hunter and fisher, gatherer of plant materials, and Columbia River island
17 users). These Native American scenarios were developed by a Native American representative
18 on the CRCIA team specifically for the CRCIA effort¹. Environmental measurements used for the
19 CRCIA analysis were based on data collected under DOE's environmental monitoring program
20 from 1990 through 1996 and, as a consequence, would not necessarily reflect the future
21 condition of the Hanford Site, as these scenarios do not assume cleanup.

22
23 Even these current monitoring program data do not indicate that adverse health risks
24 would be associated with consumption of fish and game. The radiation dose received by a
25 person who subsisted on wild game and fish would be higher than the 2.2×10^{-3} mrem reported
26 as the "Sportsman Dose" in the *Hanford Site Annual Environmental Report* by Pacific Northwest
27 National Laboratory (PNNL). However, this incremental dose to natural background of
28 approximately 300 mrem would be unlikely to be sufficiently high to cause adverse health effects.

29
30 In the CRCIA Native American scenarios, people were assumed to live along the
31 Columbia River, to eat substantial quantities of food grown in the riparian zone, to eat fish and
32 wildlife from the river, and to drink seep water. These people who live a subsistence lifestyle
33 linked to a specific location would have a much larger potential exposure and, thus, estimated
34 health risk than other people who are more mobile and can trade for other food sources. Lifetime
35 health risks greater than 1×10^{-4} [1 in 10,000] were found for many sections of the river for
36 potential exposure to chromium, copper, strontium-90, uranium-238, lead, and tritium. However,
37 the source of the nonradioactive heavy metals (particularly copper and lead) may be from historic
38 mining operations upstream of Hanford (e.g., copper, silver, and gold mining in Idaho's
39 Clearwater River drainage). According to these analyses, potentially increased health risk is
40 possible if people were to move onto the Hanford Site and derive a large percentage of their daily
41 food intake from crops and animals grown or taken in the river's riparian zone. In most cases,
42 this higher risk is limited in extent to a few regions of highest contamination. Although many
43 cultural differences exist in the relative percentages of food types between the general population
44 and Native American populations, the common pathways of food and water consumption would
45 affect both groups.

46
47 **COMMENT CODE**

48 RL318-01

49
50 **LOCATION OF EIS REVISION(S)**

¹ These scenarios are not the same as scenarios commonly used for determining health impacts at Hanford.

1 None required.

2
3 **RESPONSE**

4 The City of Richland and Benton County's analyses for industrial areas was based on a GMA
5 formula tied to expected population growth, which is appropriate for areas not impacted by large
6 Federal projects like Hanford. The City of Richland's GMA Industrial Area is based on the City's
7 population growth potential. The DOE is pleased that Benton County also recognized the nature
8 of DOE's missions and tried to accommodate that uncertainty.

9
10 DOE's facilities draw workers from Benton, Franklin, Grant and Walla Walla Counties. Because
11 of DOE's Congressionally mandated missions, all of those areas that possess significant
12 biological or cultural resources have been placed into Preservation status under the DOE's
13 Preferred Alternative in the Final HCP EIS. DOE land use is geared toward development
14 because industrial facilities are the nature of DOE's Congressionally mandated mission. DOE's
15 Hanford programmatic missions are to clean up the site under Environmental Management, and
16 to perform science and technology research under Energy Research. Other activities, such as
17 economic development and natural resource stewardship, are secondary missions. Because
18 some of DOE missions require large isolated areas, blending the current programmatic missions
19 with the secondary missions is good business practice. The commitment of large contiguous
20 areas of the Hanford Site for Industrial uses fairly reflects the uncertainty of DOE's unique
21 Congressionally mandated industrial production missions over a 50 year planning period. The
22 No-Action Alternative shows that DOE currently considers the entire area between the Columbia
23 River and State Highway 240 as "Open Space" (reserved for future development." Only those
24 areas that possess significant biological or cultural resources have been placed into Preservation
25 status under the DOE Preferred Alternative. Alternative Two does not support the uncertainty of
26 DOE Missions.

27
28 **COMMENT CODE**

29 RL318-02

30
31 **LOCATION OF EIS REVISION(S)**

32 None required.

33
34 **RESPONSE**

35 The DOE is familiar with the State's *Growth Management Act* and the State Environmental Policy
36 Act. WAC 197-11-800 Categorical exemption rules under (25) Natural resources management
37 allow the State to categorically exempt from threshold determination and EIS requirements, (b)
38 Issuance of new grazing leases covering a section (640 acres) of land or less; and issuance of
39 all grazing leases for land that has been subject to a grazing lease within the previous ten years;
40 and (d) Issuance of agricultural leases covering one hundred sixty contiguous acres or less, (h)
41 Development of recreational sites not specifically designed for all-terrain vehicles and not
42 including more than twelve campsites. The DOE believes that the Hanford CLUP is as protective
43 as the State's requirements.

44
45 **COMMENT CODE**

46 RL318-03

47
48 **LOCATION OF EIS REVISION(S)**

49 None required.

50
51 **RESPONSE**

52 The DOE believes that the intent of DOE Order 430.1 is clear in the Purpose and Need section
53 as written:

1 The U.S. Department of Energy (DOE) has several missions to fulfill at the Hanford Site that
2 include, but are not limited to, being a natural resource trustee, developing economic
3 diversification, managing energy research, and remediating legacy wastes. These missions
4 have competing natural resource consumption needs and management values. Governments
5 and stakeholders within the region have an interest in Hanford resources and in management of
6 those resources over the long-term. The DOE needs to assess the relative qualities of Hanford's
7 resources, compare the priorities and needs of Hanford's missions, and reach decisions such as
8 the identification and disposal of any excess lands. DOE Order 430.1 and Federal Law 42
9 U.S.C. 7274k require a land-use plan for the Hanford Site. The Final HCP EIS (DOE/EIS-0222)
10 provides the analysis needed to adopt a land-use plan.

11
12 A complete description of DOE Order 430.1 appears in Chapter One (Section 1.3) prior to the
13 reference to the Order in Chapter Two. Section 1.3 reads as follows:
14
15

16 "It is Department of Energy policy to manage all of its land and facilities as valuable national
17 resources. Our stewardship will be based on the principles of ecosystem management and
18 sustainable development. We will integrate mission, economic, ecological, social, and cultural
19 factors in a comprehensive plan for each site that will guide land and facility use decisions. Each
20 comprehensive plan will consider the site's larger regional context and be developed with
21 stakeholder participation. This policy will result in land and facility uses which support the
22 Department's critical missions, stimulate the economy, and protect the environment."
23

24 **COMMENT CODE**

25 RL318-04

26
27 **LOCATION OF EIS REVISION(S)**

28 None required.
29

30 **RESPONSE**

31 Please see DOE's responses to comments RL318-01 and RL318-02.
32

33 **COMMENT CODE**

34 RL318-05

35
36 **LOCATION OF EIS REVISION(S)**

37 None required.
38

39 **RESPONSE**

40 Please see DOE's response under comment RL318-01.
41

42 **COMMENT CODE**

43 RL318-06

44
45 **LOCATION OF EIS REVISION(S)**

46 3.2.3
47

48 **RESPONSE**

49 The phrase, *Includes activities related to Preservation uses* from Table 3-1 is intended to allow
50 such uses but only if consistent with the CCP yet to be developed.
51

52 An area managed for the preservation of archeological, cultural, ecological, and natural resources. No new
53 consumptive uses (e.g., mining or extraction of non-renewable resources) would be allowed within this area.

1 Limited public access would be consistent with resource preservation. Includes activities related to Preservation
2 uses.

3
4 The following wording has been added to the examples of potential land-use activities taking
5 place each land-use designation, which follows the Table:

6
7 *Preservation* – Would protect the unique Hanford Site natural resources and would enhance the
8 benefits resulting from the protection of these resources. Preservation would require active
9 management practices which could include grazing for fire and weed control to preserve the
10 existing resources, and to minimize or eliminate undesirable or non-native species. Commercial
11 grazing of domesticated livestock would not be allowed. An approved wildfire management plan
12 that manages biological resources and protects cultural resources in addition to infrastructure
13 also would be required. Preservation would not preclude all access, but would allow only uses
14 such as non-intrusive environmental research activities or management of game species,
15 provided those activities are consistent with the purposes of the preservation of the natural
16 resources.

17
18 **COMMENT CODE**

19 RL318-07

20
21 **LOCATION OF EIS REVISION(S)**

22 None required.

23
24 **RESPONSE**

25 Research and Development is a land use sponsored by the City of Richland and supported by
26 DOE. The GMA is clear on the role of state agencies with respect to land-use planning
27 responsibilities. DOE defers to the City of Richland on this matter.

28
29 **COMMENT CODE**

30 RL318-08

31
32 **LOCATION OF EIS REVISION(S)**

33 None required.

34
35 **RESPONSE**

36 The DOE believes that it is prudent to reserve land for waste management activities than is
37 currently required because of the many industrial, research and development, and remediation
38 challenges the complex still faces. DOE also believes that a NEPA analysis has been done for
39 the area set aside for Industrial-Exclusive uses in this EIS. The impacts to existing resources
40 from the Industrial-Exclusive land-use designation are clearly identified in Chapter 5, and a I&I
41 commitment for these resources has been identified. Individual projects that have site-specific
42 impacts would still need to be put through DOE's NEPA process but, because they would be
43 generally compatible with the CLUP, a lower level of NEPA (i.e., an Environmental Assessment
44 or a Categorical Exclusion [CX]) might be required if there was a conflict with the CLUP. The
45 SEPA allows the conversion of up to 160 acres of shrub-steppe for agricultural purposes under a
46 CX.

47
48 **COMMENT CODE**

49 RL318-09

50
51 **LOCATION OF EIS REVISION(S)**

52 None required.

53
54 **RESPONSE**

1 The concept of using grazing to control fire danger and the spread of noxious weeds was
2 provided to the DOE by the Washington Department of Fish and Wildlife (WDFW). A
3 Washington State grazing permit (lease #WS-01) was in effect on 9,280 acres of the Wahluke
4 Slope but has been since rescinded. When asked about the permit, the WDFW representative
5 informed the cooperating agencies that the grazing permit was in effect to control fire danger by
6 removing the cheatgrass and, because cheatgrass is a non-native invader, the grazing also
7 helped control noxious weeds. In the State grazing permit (lease #WS-01) the lease says, "The
8 goal of this grazing program is to reduce the amount and vigor of cheatgrass on this site and
9 increase the amount and diversity of perennial vegetation."

10 WAC 197-11-800 Categorical exemption rules under (25) Natural resources management allow
11 the State to categorically exempt from threshold determination and EIS requirements,
12 (b) Issuance of new grazing leases covering a section (640 acres) of land or less; and issuance
13 of all grazing leases for land that has been subject to a grazing lease within the previous ten
14 years; and (d) Issuance of agricultural leases covering one hundred sixty contiguous acres. The
15 DOE believes that the Hanford CLUP is as protective as the State's requirements in this regard.
16
17

18 The DOE does not intend to allow commercial grazing on the Hanford Site. However, an attempt
19 to exercise reserved treaty rights by tribal members to pasture livestock on open and unclaimed
20 lands could result in a court decision that could allow uncontrolled tribal grazing on the Hanford
21 Site.
22

23 **COMMENT CODE**

24 RL318-10

25
26 **LOCATION OF EIS REVISION(S)**

27 None required.
28

29 **RESPONSE**

30 The DOE agrees that agriculture should not be allowed on the central part of Hanford.
31

32 **COMMENT CODE**

33 RL318-11
34

35 **LOCATION OF EIS REVISION(S)**

36 None required.
37

38 **RESPONSE**

39 The Growth Management Services Chapter 365-190 of the WAC sets the minimum guidelines to
40 classify agriculture, forest, mineral lands, and critical areas. For critical areas WAC 365-190-
41 080 (5) Fish and Wildlife Habitat Conservation Areas (c) Sources and Methods (ii), it is clear that
42 the counties and cities determine Wildlife Habitat Conservation Areas:
43

44 *Counties and cities should determine which habitats and species are of local importance.*
45 *Habitats and species may be further classified in terms of their relative importance. Counties*
46 *and cities may use information prepared by the Washington Department of Wildlife to classify*
47 *and designate locally important habitats and species. Priority habitats and priority species are*
48 *being identified by the Department of Wildlife for all lands in Washington State. While these*
49 *priorities are those of the department, they and the data on which they are based may be*
50 *considered by counties and cities.*
51

52 Additionally, for WAC 365-190-070 Mineral Resource Lands, it is clear that the State GMA shares
53 DOE's concern to ensure future supply of aggregate and mineral resource material and clearly
54 leaves the decision up to the counties and cities. DOE believes that its Conservation (Mining)

1 designation is much closer to the sponsors for Alternative Three who have the State authority for
2 designating mineral resource lands than any other alternative. The following is WAC 365-190-070
3 with bold for emphasis added:
4

5 (1) Counties and cities shall identify and classify aggregate and mineral resource lands from
6 which the extraction of minerals occurs **or can be anticipated**. Other proposed land uses within
7 these areas may require special attention to **ensure future supply of aggregate and mineral**
8 **resource material**, while maintaining a balance of land uses.

9 (2) Classification criteria. Areas shall be classified as mineral resource lands based on geologic,
10 environmental, and economic factors, existing land uses, and land ownership. The areas to be
11 studied and their order of study **shall be specified by counties and cities**.

12 (a) **Counties and cities should classify lands with long-term commercial significance for**
13 **extracting at least the following minerals: Sand, gravel, and valuable metallic substances.**

14 Other minerals may be classified as appropriate.

15 (b) In classifying these areas, counties and cities should consider maps and information on
16 location and extent of mineral deposits provided by the Washington state department of natural
17 resources and the United States Bureau of Mines. Additionally, the department of natural
18 resources has a detailed minerals classification system counties and cities may choose to use.

19 (c) **Counties and cities should consider classifying known and potential mineral deposits**
20 **so that access to mineral resources of long-term commercial significance is not**
21 **knowingly precluded.**

22 (d) In classifying mineral resource lands, counties and cities shall also consider the effects of
23 proximity to population areas and the possibility of more intense uses of the land as indicated by:

24 (i) General land use patterns in the area;

25 (ii) Availability of utilities;

26 (iii) Availability and adequacy of water supply;

27 (iv) Surrounding parcel sizes and surrounding uses;

28 (v) Availability of public roads and other public services;

29 (vi) Subdivision or zoning for urban or small lots;

30 (vii) Accessibility and proximity to the point of use or market;

31 (viii) Physical and topographic characteristics of the mineral resource site;

32 (ix) Depth of the resource;

33 (x) Depth of the overburden;

34 (xi) Physical properties of the resource including quality and type;

35 (xii) Life of the resource; and

36 (xiii) Resource availability in the region. [Statutory Authority: RCW 36.70A.050. 91-07-041, § 365-
37 190-070, filed 3/15/91, effective 4/15/91.]
38

39 **COMMENT CODE**

40 RL318-12

41 **LOCATION OF EIS REVISION(S)**

42 None required.
43
44

45 **RESPONSE**

46 The BRMaP would be considered a Resource Management Plan and as such is subject to the
47 terms of this EIS's ROD. The Comprehensive Land-Use Plan is to set the boundaries for all of
48 the follow-up Area Management Plans and Resource Management Plans. These plans cannot
49 be independent of the CLUP because protection of resources often conflict with each other as
50 well as the DOE missions. For example, a wildlife biologist might not have the expertise to
51 recognize a cultural site and could inadvertently destroy an artifact by crushing it underfoot while
52 searching for a protected wildlife species. On the other hand, an archaeologist might not have
53 the biological expertise to identify a sensitive species and might inadvertently disturb that species.
54 The same can be said for the fire management officer dealing with an ongoing sagebrush fire.

1 Each resource has its experts and issues. All the issues come together “on the ground.” This is
2 why the CLUP’s role is an integration function that must have the authority to define the
3 boundaries of the resource management plans, but only where discretionary actions conflict.
4

5 **COMMENT CODE**

6 RL318-13

7
8 **LOCATION OF EIS REVISION(S)**

9 None required.

10
11 **RESPONSE**

12 The DOE disagrees with the WDFW on this comment. The I&I commitment is adequate for the
13 administrative action being taken, that is, planning for future land use. The referenced language
14 in Chapter 3 is from the 1975 NEPA document that committed a large area of the Hanford Site to
15 the weapons production mission. As a natural resource trustee, DOE believes that it is
16 appropriate to comply with the CERCLA Natural Resource Damages Assessment (NRDA)
17 exemption provisions as Congress has set forth in CERCLA.
18

19 **COMMENT CODE**

20 RL318-14

21
22 **LOCATION OF EIS REVISION(S)**

23 None required.

24
25 **RESPONSE**

26 The Mitigation Action Plan which DOE which develop at a later plan, will be shared with the
27 cooperating agencies and the SPAB. In addition, the cooperating agencies can draw on any of
28 their resources they wish, including the WDFW. The DOE does not wish to interfere with the
29 State-mandated responsibilities and authorities of the GMA.
30

31 **COMMENT CODE**

32 RL318-15

33
34 **LOCATION OF EIS REVISION(S)**

35 None required.

36
37 **RESPONSE**

38 The BRMaP is a guidance document that DOE uses to implement mitigation strategies and
39 would be a Resource Management Plan under the CLUP. The SPAB would need to review
40 BRMaP and recommend to the Real Estate Officer and NEPA Compliance Officer if changes
41 were needed.
42

43 The Growth Management Services Chapter 365-190 of the WAC sets the minimum guidelines to
44 classify agriculture, forest, mineral lands, and critical areas. For critical areas, WAC 365-190-
45 080 (5) Fish and Wildlife Habitat Conservation Areas (c) Sources and Methods (ii), it is clear that
46 the counties and cities determine Wildlife Habitat Conservation Areas:
47

48 *Counties and cities should determine which habitats and species are of local importance.*
49 *Habitats and species may be further classified in terms of their relative importance. Counties*
50 *and cities may use information prepared by the Washington Department of Wildlife to classify*
51 *and designate locally important habitats and species. Priority habitats and priority species are*
52 *being identified by the Department of Wildlife for all lands in Washington State. While these*
53 *priorities are those of the department, they and the data on which they are based may be*
54 *considered by counties and cities.*

1 The DOE does not wish to interfere with the State-mandated responsibilities and authorities of
2 the GMA.

3
4 **COMMENT CODE**

5 RL318-16

6
7 **LOCATION OF EIS REVISION(S)**

8 None required.

9
10 **RESPONSE**

11 Without any compensatory mitigation, WAC 197-11-800 Categorical exemption rules under (25)
12 Natural resources management allow the State to categorically exempt from threshold
13 determination and EIS requirements, (b) Issuance of new grazing leases covering a section (640
14 acres) of land or less; and issuance of all grazing leases for land that has been subject to a
15 grazing lease within the previous ten years; and (d) Issuance of agricultural leases covering one
16 hundred sixty contiguous acres or less, (h) Development of recreational sites not specifically
17 designed for all-terrain vehicles and not including more than twelve campsites. The DOE
18 believes that the Hanford CLUP is as protective as the State's requirements.

19
20 **COMMENT CODE**

21 RL318-17

22
23 **LOCATION OF EIS REVISION(S)**

24 None required.

25
26 **RESPONSE**

27 The City of Richland and Benton County's analyses for industrial areas was based on a GMA
28 formula tied to expected population growth, which is appropriate for areas not impacted by large
29 Federal projects like Hanford. The City of Richland's GMA Industrial Area is based on the City's
30 population growth potential. The DOE is pleased that Benton County also recognized the nature
31 of DOE's missions and tried to accommodate that uncertainty.

32
33 DOE's facilities draw workers from Benton, Franklin, Grant, and Walla Walla Counties.
34 Because of DOE's Congressionally mandated missions, all of those areas that possess
35 significant biological or cultural resources have been placed into Preservation status under the
36 DOE's Preferred Alternative in the Final HCP EIS. DOE land use is geared toward development
37 because industrial facilities are the nature of DOE's Congressionally mandated mission. DOE's
38 Hanford programmatic missions are to clean up the site under Environmental Management, and
39 to perform science and technology research under Energy Research. Other activities, such as
40 economic development and natural resource stewardship, are secondary missions. Because
41 some of DOE missions require large isolated areas, blending the current programmatic
42 missions with the secondary missions is good business practice. The commitment of large
43 contiguous areas of the Hanford Site for Industrial uses fairly reflects the uncertainty of DOE's
44 unique Congressionally mandated industrial production missions over a 50 year planning period.
45 The No-Action Alternative shows that DOE currently considers the entire area between the
46 Columbia River and State Highway 240 as "Open Space" (reserved for future development."
47 Only those areas that possess significant biological or cultural resources have been placed into
48 Preservation status under the DOE's Preferred Alternative in the Final HCP EIS.

49
50 **COMMENT CODE**

51 RL318-18

52
53 **LOCATION OF EIS REVISION(S)**

54 None required.

1 **RESPONSE**

2 The DOE believes that the guidance documents (Resource Management Plans) that would be
3 generated as a result of the CLUP ROD would be administrative and therefore categorically
4 exempt. The ordinance equivalences mentioned in the comment must be passed from Federal
5 law authority. The EIS Resource Management Plans are not rule making and are therefore
6 exempt. The decision to cooperatively plan with a CLUP is the decision of the ROD.
7

8 **COMMENT CODE**

9 RL318-19

10
11 **LOCATION OF EIS REVISION(S)**

12 None required.
13

14 **RESPONSE**

15 As the commenter correctly states, *The BRMaP and BRMiS will be the USDOE policy*
16 *documents that provide guidance regarding the protection of habitats and species based on the*
17 *ecosystem management principles stated above.* The Resource Management Plans are policy
18 documents that provide guidance; the CLUP would be implemented through a legally binding
19 ROD after being put through the NEPA decision-making process.
20

21 The CLUP is to set the boundaries for all of the follow-up Area Management Plans and Resource
22 Management Plans. These plans cannot be independent of the CLUP because protection of
23 resources often conflict with each other as well as the DOE missions. For example, a wildlife
24 biologist might not have the expertise to recognize a cultural site and could inadvertently destroy
25 an artifact by crushing it underfoot while searching for a protected wildlife species. On the other
26 hand, an archaeologist might not have the biological expertise to identify a sensitive species and
27 might inadvertently disturb that species. The same can be said for the fire management officer
28 trying to deal with an ongoing sagebrush fire. Each resource has its experts and issues. All the
29 issues come together “on the ground.” This is why the CLUP’s role is an integration function that
30 must have the authority to define the boundaries of the resource management plans, but only
31 where discretionary actions conflict.
32

33 **COMMENT CODE**

34 RL318-20

35
36 **LOCATION OF EIS REVISION(S)**

37 None required.
38

39 **RESPONSE**

40 The DOE needs to adhere to the provisions of the *Endangered Species Act* (ESA), not the
41 provisions of the BRMaP. The BRMaP goes beyond the ESA requirements in that it provides
42 guidance on how to avoid ESA complications by dealing with the species or species habitat
43 requirements before the species becomes a ESA-listed species.
44

45 **COMMENT CODE**

46 RL318-21

47
48 **LOCATION OF EIS REVISION(S)**

49 None required.
50

51 **RESPONSE**

52 The DOE agrees that individual projects that have site-specific impacts, such as the trail, would
53 still need to be put through DOE’s NEPA process but, because such projects would be

1 compatible with the CLUP, a lower level of NEPA (i.e., Environmental Assessment or Categorical
2 Exclusion) might be required if there was a conflict with the CLUP.

3
4 **COMMENT CODE**

5 RL318-22

6
7 **LOCATION OF EIS REVISION(S)**

8 None required.

9
10 **RESPONSE**

11 DOE Hanford's current missions, as stated in the *Hanford Strategic Plan* (DOE/RL-96-92), are:
12 *Hanford's missions are to safely cleanup and manage the site's legacy wastes, and to develop*
13 *and deploy science and technology. Through these missions we contribute to economic*
14 *diversification of the region.*

15
16 This is just DOE Hanford's current mission. There are other DOE-HQ and DOE Laboratories
17 Missions that could be transferred and arrive at Hanford within two years.

18
19 **COMMENT CODE**

20 RL318-23

21
22 **LOCATION OF EIS REVISION(S)**

23 None required.

24
25 **RESPONSE**

26 It is clear to DOE that the cities and the counties have the GMA authority to plan for their areas.
27 The Growth Management Services Chapter 365-190 of the WAC sets the minimum guidelines to
28 classify agriculture, forest, mineral lands, and critical areas. For critical areas WAC 365-190-
29 080 (5) Fish and Wildlife Habitat Conservation Areas (c) Sources and Methods (ii), it is clear that
30 the counties and cities determine Wildlife Habitat Conservation Areas:

31
32 *Counties and cities should determine which habitats and species are of local importance.*
33 *Habitats and species may be further classified in terms of their relative importance.*
34 *Counties and cities may use information prepared by the Washington Department of*
35 *Wildlife to classify and designate locally important habitats and species. Priority habitats*
36 *and priority species are being identified by the Department of Wildlife for all lands in*
37 *Washington State. While these priorities are those of the department, they and the data*
38 *on which they are based may be considered by counties and cities.*

39
40 The DOE does not want to interfere with the State-mandated responsibilities and authorities of
41 the GMA.

42
43 The City of Richland and Benton County's analyses for industrial areas was based on a GMA
44 formula tied to expected population growth, which is appropriate for areas not impacted by large
45 Federal projects like Hanford. The City of Richland's GMA Industrial Area is based on the City's
46 population growth potential. DOE is pleased that Benton County also recognized the nature of
47 DOE's missions and tried to accommodate that uncertainty.

48
49 DOE's facilities draw workers from Benton, Franklin, Grant, and Walla Walla Counties. DOE
50 land use is geared toward development because industrial facilities are the nature of DOE's
51 Congressionally mandated mission. DOE's current Hanford programmatic missions are to clean
52 up the site under Environmental Management, and to perform science and technology research
53 under Energy Research. These programmatic missions can change within a year based on the
54 wishes and whims of the Federal government. Other activities, such as economic development

1 and natural resource stewardship, are secondary missions. Because some of DOE missions
2 require large isolated areas, blending the current programmatic missions with the secondary
3 missions is good business practice. The commitment of large contiguous areas of the Hanford
4 Site for Industrial uses fairly reflects the uncertainty of DOE's unique Congressionally mandated
5 industrial production missions over a 50 year planning period. The No-Action Alternative shows
6 that DOE currently considers the entire area between the Columbia River and State Highway 240
7 as "Open Space" (reserved for future development). Only those areas that possess significant
8 biological or cultural resources have been placed into Preservation status under DOE's Preferred
9 Alternative in the Final HCP EIS.

10
11 **COMMENT CODE**

12 RL318-24

13
14 **LOCATION OF EIS REVISION(S)**

15 S-1; change not applicable to Main Volume of the EIS

16
17 **RESPONSE**

18 Comment accepted. Good catch.

19
20 **COMMENT CODE**

21 RL318-25

22
23 **LOCATION OF EIS REVISION(S)**

24 S4.1.1, 3.3.6.3.1, 4.1.2.1

25
26 **RESPONSE**

27 Comment accepted. The fact that the WDFW has allowed its grazing lease on the Wahluke
28 Slope to expire has been added to the EIS. But, under SEPA regulations, for up to 10 years after
29 expiration of the lease, the WDFW can reinstate the grazing lease without public review.

30
31 **COMMENT CODE**

32 RL318-26

33
34 **LOCATION OF EIS REVISION(S)**

35 None required.

36
37 **RESPONSE**

38 The Composite Map of Level II, Level III, and Level IV Biological Resources would be updated
39 when the Draft *Hanford Biological Resources Management Plan* (BRMaP) is updated. To update
40 the map or the meaning of the resources before the document is finalized would circumvent the
41 concurrence process.

42
43 **COMMENT CODE**

44 RL318-27

45
46 **LOCATION OF EIS REVISION(S)**

47 Table S-6 and Table 5-14

48
49 **RESPONSE**

50 Comment accepted. Alternative One does not contain enough Industrial to support the City of
51 Richland's *Growth Management Act* (GMA) map.

1 **COMMENT CODE**

2 RL318-28

3
4 **LOCATION OF EIS REVISION(S)**

5 None required.

6
7 **RESPONSE**

8 The meaning of BRMaP levels has not changed. The Composite Map of Level II, Level III, and
9 Level IV Biological Resources would be updated when the Draft *Hanford Biological Resources*
10 *Management Plan* (BRMaP) is updated. To update the map or the meaning of the resources
11 before the document is finalized would circumvent the concurrence process.

12
13 **COMMENT CODE**

14 RL318-29

15
16 **LOCATION OF EIS REVISION(S)**

17 S5.6 (deleted); not applicable to Main Volume EIS.

18
19 **RESPONSE**

20 In response to other commenters, Section S5.6 has been deleted from Summary

21
22 **COMMENT CODE**

23 RL318-30

24
25 **LOCATION OF EIS REVISION(S)**

26 S6.3.2, 4.5.8

27
28 **RESPONSE**

29 Comment accepted. The applicable changes have been made to the EIS.

30
31 **COMMENT CODE**

32 RL318-31

33
34 **LOCATION OF EIS REVISION(S)**

35 Table 1-2

36
37 **RESPONSE**

38 Table 1-2 in the EIS already includes the following: *The Final HCP EIS would provide the basis*
39 *for the Benton County SEPA review for the Hanford sub-area plan of the Benton County*
40 *Comprehensive Plan.*

41
42 We have added a sentence to the following text: "The Benton County Comprehensive Plan
43 addresses land uses for the County, including the portion of the Hanford Site that lies within
44 Benton County (Industrial, Industrial-Exclusive, Research and Development, High-Intensity
45 Recreation, and Low-Intensity Recreation use). The 1100 Area and 300 Area would remain in an
46 Industrial use designation. The HCP EIS could fulfill the SEPA requirements for the Counties
47 and, as cooperating agencies, they could identify another alternative as their Preferred Alternative.
48 The lead agency is Benton County."
49

1 **COMMENT CODE**

2 RL318-32

3
4 **LOCATION OF EIS REVISION(S)**

5 None required.

6
7 **RESPONSE**

8 Please see the expansion of definitions in the applicable section.

9
10 **COMMENT CODE**

11 RL318-33

12
13 **LOCATION OF EIS REVISION(S)**

14 3.3.1.3.5

15
16 **RESPONSE**

17 Comment accepted. The EIS text has been revised to read as follows: "Currently, persons
18 wishing to visit the ALE Reserve must first contact an appropriate staff member of either DOE or
19 the USFWS."

20
21 **COMMENT CODE**

22 RL318-34

23
24 **LOCATION OF EIS REVISION(S)**

25 None required.

26
27 **RESPONSE**

28 The DOE is conducting planning according to its missions. DOE Hanford's current missions, as
29 stated in the *Hanford Strategic Plan* (DOE/RL-96-92), are:

30
31 *Hanford's missions are to safely cleanup and manage the site's legacy wastes, and to develop*
32 *and deploy science and technology. Through these missions we contribute to economic*
33 *diversification of the region.*

34
35 This is just DOE Hanford's current mission. There are other DOE-HQ and DOE Laboratories
36 Missions that could be transferred and arrive at Hanford within two years.

37
38 **COMMENT CODE**

39 RL318-35

40
41 **LOCATION OF EIS REVISION(S)**

42 5.1.6.3

43
44 **RESPONSE**

45 Comment accepted. The EIS text now reads as follows:

46
47 **5.1.6.3 Agricultural.** The impacts of the Agricultural land-use designation were evaluated based
48 on the increase in land available for agriculture use, as a percentage of total agricultural land in
49 Benton, Franklin, and Grant counties. The increase in land available was correlated to increased
50 sales of agricultural products. These correlations were made using data from the Census of
51 Agriculture (USDA-NASS 1992), and the Benton County Agricultural Extension Office (Watson et
52 al. 1991), and did not consider impacts on prices due to scales of economy, or market share.

1 Although it is impossible to predict any commodity market over the next 50 years, the
2 markets for apples, potatoes, and wheat are currently soft. For example, an estimated 105
3 million 42-pound boxes of apples will be picked In 1998 whereas in an average year, such as
4 1997, about 78 million boxes will be picked. Currently there is a market for only 80 to 90 million
5 boxes, and Washington apple growers are faced with the option of leaving apples unpicked,
6 reducing orchards, or paying for increased marketing in an attempt to gain market share (TCH
7 1998a) (see Table 3-2).

8
9 **COMMENT CODE**

10 RL318-36

11
12 **LOCATION OF EIS REVISION(S)**

13 3.3.6.3.1 and 4.1.2.1

14
15 **RESPONSE**

16 Comment accepted. Changes have been made to the EIS text.

17
18 **COMMENT CODE**

19 RL318-37

20
21 **LOCATION OF EIS REVISION(S)**

22 None required.

23
24 **RESPONSE**

25 Without any compensatory mitigation, WAC 197-11-800 Categorical exemption rules under (25)
26 Natural resources management allow the State to categorically exempt from threshold
27 determination and EIS requirements, (b) Issuance of new grazing leases covering a section (640
28 acres) of land or less; and issuance of all grazing leases for land that has been subject to a
29 grazing lease within the previous ten years; and (d) Issuance of agricultural leases covering one
30 hundred sixty contiguous acres or less, (h) Development of recreational sites not specifically
31 designed for all-terrain vehicles and not including more than twelve campsites. The DOE
32 believes that the Hanford CLUP is as protective as the State's requirements.

33
34 **COMMENT CODE**

35 RL318-38

36
37 **LOCATION OF EIS REVISION(S)**

38 3.3.6.3.1 and 4.1.2.1

39
40 **RESPONSE**

41 Because of the 10 year window in which the WDFW could renew grazing without public
42 comment, the reference would remain but it has been updated as follows:

43
44 In the northeast portion of the Wahluke Slope, the Washington State Department of Fish and
45 Wildlife (WDFW) operates the Wahluke State Wildlife Recreation Area, which was established in
46 1971. Under an agreement made in April 1999, the Wahluke State Wildlife Recreation Area will
47 be combined with the Saddle Mountain National Wildlife Refuge and managed as a unit by the
48 USFWS. The WDFW has leased a total of approximately 43 ha (107 ac) of the Wahluke State
49 Wildlife Recreation Area for sharecropping. The purpose of these agricultural leases is to
50 produce food and cover for wildlife and manage the land for continued multi-purpose recreation.
51 In addition, the WDFW issued a grazing permit for approximately 3,756 ha (9,280 ac), allowing up
52 to 750 animal-unit-months to graze the parcel (Washington Department of Fish and Wildlife
53 Grazing Permit #W5-01; and Washington Department of Fish and Wildlife Agricultural Leases

1 #R-01, #WB-01, and #WB-02). This WDFW grazing lease was allowed to expire on December
2 31, 1998.

3
4 **COMMENT CODE**

5 RL318-39

6
7 **LOCATION OF EIS REVISION(S)**

8 4.5.2.2

9
10 **RESPONSE**

11 The EIS text has been revised as follows: "The most recent and extensive wildfire on the Hanford
12 Site occurred in the summer of 1998 and burned approximately 4,000 ha (10,000 acres).
13 Previous fires occurred in 1957, 1973, and 1981, and 1984 (Figure 4-22).
14

15 **COMMENT CODE**

16 RL318-40

17
18 **LOCATION OF EIS REVISION(S)**

19 4.5.8

20
21 **RESPONSE**

22 Comment accepted. The EIS text has been revised.
23

24 **COMMENT CODE**

25 RL318-41

26
27 **LOCATION OF EIS REVISION(S)**

28 5.1.2

29
30 **RESPONSE**

31 Comment accepted. The EIS text has been changed as follows. The legally protected species
32 that are included in Level IV cannot be impacted without the concurrence of the U.S. Fish and
33 Wildlife Service (USFWS) or the National Marine Fisheries Service so these types of impacts do
34 not jeopardize the continued existence of the species.
35

36 **COMMENT CODE**

37 RL318-42

38
39 **LOCATION OF EIS REVISION(S)**

40 Table 5-4

41
42 **RESPONSE**

43 Comment accepted. The table has been revised.
44

45 **COMMENT CODE**

46 RL318-43

47
48 **LOCATION OF EIS REVISION(S)**

49 6.3.2

1 **RESPONSE**

2 Comment accepted. The text has been changed.

3
4 **COMMENT CODE**

5 RL318-44

6
7 **LOCATION OF EIS REVISION(S)**

8 None required.

9
10 **RESPONSE**

11 The 200 Area Management Plan was specifically exempted in the following section and the
12 biological resources have been I&I.

13
14 **6.2. Definitions for Terms Relating to Plan Implementation**

15
16 The following three definitions – Allowable Use, Special Use, and Amendments – relate
17 the land-use policies to the land-use maps:

- 18 • **Allowable Use** – Any reservation of land for a physical development or land-use
19 activity that is consistent with the land-use designation and policies of the land-use
20 map and CLUP, or a specifically identified part of an approved area management
21 plan (AMP), except for “Amendments” or uses that are identified as “Special Use.”
22 Any new remediation project or support activity that is categorically excluded under
23 DOE’s NEPA regulations (10 CFR 1021) is an allowable use, except projects
24 proposed in the Preservation designation.
- 25 • **Special Use** – Activities requiring further review and approval prior to being
26 allowed. The following are special uses.
 - 27 1. Any physical development or land-use activity in the Preservation
28 designation
 - 29 2. Any physical development or land-use activity in the Conservation
30 designation that is not categorically excluded under DOE’s NEPA
31 regulations (10 CFR 1021)
 - 32 3. AMPs outside of the 200, 300, and 400 Areas

33
34
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39
40 **COMMENT CODE**

41 RL319

42
43 **LOCATION OF EIS REVISION(S)**

44 Table 6-4

45
46 **RESPONSE**

47 Institutional controls within the Hanford Site are managed via deed or covenant restrictions. Any
48 proposed new project located within an area that has a deed or covenant restriction would be
49 considered a special use activity (see Section 6.2). Such activities would require review and a
50 recommendation for approval or denial by the Site Planning Advisory Board (SPAB). The DOE
51 agrees that Institutional Controls would be a large part of the SPAB’s workload. To elucidate the
52 emphasis, the following has been added as a Special Use in Chapter 6:

1 6. Any proposed new project that is located within an area that has a deed or covenant
2 restriction as a result of the remediation process (e.g., institutional controls)
3

4 Also, added as objectives were:
5

6 *Achieving these objectives is essential to accomplishing DOE missions and working with*
7 *Federal agencies, Tribes, and local cities and counties to jointly accomplish planning goals,*
8 *economic transition, institutional controls, long-term site stewardship, and multiple uses of the*
9 *Site.*

10
11 And, in Table 6-4, the “Hanford Institutional Control Plan” (e.g., long-term stewardship plan) was
12 added as a Resource Management Plan to be created.
13

14 **COMMENT CODE**

15 RL325
16

17 **LOCATION OF EIS REVISION(S)**

18 4.5
19

20 **RESPONSE**

21 Section 4.5 has been revised to discuss the limitations of Figure 4-17 and Figure 4-18 (i.e., use of
22 data from incidental sightings as opposed to thorough surveys).
23

24 **COMMENT CODE**

25 RL328-01 (Please see DOE’s response to RL304-01.)
26

27 **COMMENT CODE**

28 RL328-02 (Please see DOE’s response to RL304-02.)
29

30 **COMMENT CODE**

31 RL330
32

33 **EIS REVISION(S)**

34 None required.
35

36 **RESPONSE**

37 The USFWS has been reimbursing the Grant County Fire District 8 since at least 1993 for their
38 costs incurred fighting fires on the Saddle Mountain National Wildlife Refuge and even, to some
39 extent, for fires that have burned on adjacent state-managed land (e.g., the Wahluke Wildlife
40 Recreation Area). The USFWS has also implemented weed control practices in the area.
41

42 **COMMENT CODE**

43 RL349
44

45 **LOCATION OF EIS REVISION(S)**

46 None required.
47

48 **RESPONSE**

49 In their comments on the Revised Draft HRA-EIS, the Port of Benton expressed a desire to use
50 the Hanford rail system. Provisions for that connection would be made in the permit to the
51 USFWS for management of the refuge. Although DOE’s Preferred Alternative would not hinder
52 the rail option because it is a pre-existing, nonconforming use (i.e., any existing lawfully
53 established use that is neither allowed nor conditionally permitted within a land-use designation,

1 but exists therein, having been established prior to the CLUP land-use designation), DOE does
2 not intend to maintain the existing rail line and, under General Policy Number 8 (see Chapter 6), it
3 is DOE's Policy to, "as feasible and practical, remove pre-existing, nonconforming uses."
4

5 **COMMENT CODE**

6 RL358

7
8 **LOCATION OF EIS REVISION(S)**

9 None required.

10
11 **RESPONSE**

12 In the EIS Introduction DOE states, *This land-use plan can be used by the regulators to establish*
13 *goals for the CERCLA/Resource Conservation and Recovery Act of 1976 (RCRA) cleanup (i.e.,*
14 *remediation) processes (see Table 1-3). Remediation will be conducted under CERCLA/RCRA*
15 *authority.*

16
17 The residual human health risk always would be an acceptable CERCLA risk between 10^{-4} to 10^{-6}
18 independent of whatever land use is chosen.

19
20 **COMMENT CODE**

21 RL359-01

22
23 **LOCATION OF EIS REVISION(S)**

24 None required.

25
26 **RESPONSE**

27 The 1997 biodiversity inventory findings annual report have been incorporated into the Final HCP
28 EIS to the extent that they weren't already included in the Revised Draft. As of August 20, 1999,
29 the 1998 biodiversity findings report was not yet available for incorporation into the Final EIS. The
30 current draft BRMaP was prepared before the Nature Conservancy biodiversity inventory findings
31 were available. As stated previously, the BRMaP would be updated to be consistent with the
32 Record of Decision for this EIS.

33
34 **COMMENT CODE**

35 RL359-02

36
37 **LOCATION OF EIS REVISION(S)**

38 None required.

39
40 **RESPONSE**

41 The following areas mentioned in the comment are already included in the Preservation
42 designation in DOE's Preferred Alternative: Gable Butte and Gable Mountain along with their
43 associated rare plant populations; vernal pools and other special habitat areas; and West Lake.
44 The DOE does not agree with the recommendation to include "all plant community element
45 occurrences" in the Preservation designation.

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COMMENT CODE

RL361-01/443-01

LOCATION OF EIS REVISION(S)

Section 1.2.8 has been revised to include a discussion of Executive Order 13112.

RESPONSE

A discussion of the Invasive Species Executive Order 13112 has been added to Section 1.2.8 in the Final HCP EIS.

COMMENT CODE

RL361-02/443-02

LOCATION OF EIS REVISION(S)

1.2.8 and 7.3.15

RESPONSE

Sections of the suggested text have been added to Section 1.2.6 and reflected in Chapter 7 of the Final HCP EIS. The recommendations on specific actions have been forwarded to the Hanford Noxious Weed Program for their consideration.

COMMENT CODE

RL361-03/443-03

LOCATION OF EIS REVISION(S)

3.2.3

RESPONSE

Comment accepted. The definition of mining has been expanded.

COMMENT CODE

RL361-04/443-04

LOCATION OF EIS REVISION(S)

None required.

RESPONSE

To the extent possible, other industrial uses intended within any of the land-use designations have been described in the alternatives of the Revised Draft HRA-EIS. Further discussion would be highly speculative.

COMMENT CODE

RL361-05/443-05

LOCATION OF EIS REVISION(S)

None required.

RESPONSE

The McGee Ranch is already shown in Preservation. In response to public comment, DOE has modified its Preferred Alternative in the Final EIS. The Riverlands area has been changed from Conservation (Mining and Grazing) to Preservation, and the proposed refuge boundary in the new

1 Preferred Alternative has been changed to include ALE, McGee Ranch, and the Riverlands; and
2 the ALE Reserve boundary now includes McGee Ranch.

3
4 **COMMENT CODE**

5 RL361-06/443-06

6
7 **LOCATION OF EIS REVISION(S)**

8 4.1.2.1

9
10 **RESPONSE**

11 Comment accepted, and changes incorporated.

12
13 **COMMENT CODE**

14 RL361-07/443-07

15
16 **LOCATION OF EIS REVISION(S)**

17 S4.1.3, 4.1.2.5

18
19 **RESPONSE**

20 Comment accepted, and changes incorporated.

21
22 **COMMENT CODE**

23 RL361-08

24
25 **LOCATION OF EIS REVISION(S)**

26 Figure 4-8

27
28 **RESPONSE**

29 The figure title has been changed to "Geological Hazards Related to Economic Land Uses."

30
31 **COMMENT CODE**

32 RL361-09

33
34 **LOCATION OF EIS REVISION(S)**

35 4.3.1

36
37 **RESPONSE**

38 Comment accepted; text has been added to Section 4.3.1.

39
40 **COMMENT CODE**

41 RL361-10

42
43 **LOCATION OF EIS REVISION(S)**

44 None required.

45
46 **RESPONSE**

47 Comment accepted; no change required.

48
49 **COMMENT CODE**

50 RL361-11

51
52 **LOCATION OF EIS REVISION(S)**

53 None required.

1 **RESPONSE**

2 The Site Planning Advisory Board is made up of those entities with *Growth Management Act* or
3 other land-use authority over portions of the Hanford Site.

4
5 **COMMENT CODE**

6 RL372

7
8 **LOCATION OF EIS REVISION(S)**

9 None required.

10
11 **RESPONSE**

12 The DOE agrees that Grant County and the Port of Mattawa should be included in Hanford's
13 Economic Development Mission, and DOE encourages the public agencies to seek DOE
14 assistance for economic development. The fact that current reindustrialization benefits are being
15 captured almost exclusively by Benton County, the Port of Benton, and the City of Richland is
16 because Benton County is where all of the Hanford industrial facilities are located.

17
18 As an example of a successful reindustrialization effort with the Port of Benton, the Hanford 1100
19 Area and the Hanford railroad southern connection (from Horn Rapids Road to Columbia Center)
20 have been transferred. A key to transfer was that the land use of the 1100 Area and the railroad
21 southern connection would remain Industrial. The Port took control of the "1100 Area"
22 (consisting of 786 acres, 26 buildings, and 16 miles of rail tract) on October 1, 1998.

23
24 For information about land transfer or facility leasing, see Table 1-4 of the EIS. For more
25 information about the process for transferring property, refer to the guidebook, *Cross-Cut*
26 *Guidance on Environmental Requirements for DOE Real Property Transfers* (DOE 1997b), or
27 the Department of Ecology's guidebook, *Hanford Land Transfer* (Ecology 1993).

28
29 The DOE tried to accommodate every party, while still fulfilling a primary or secondary DOE
30 Mission. Of the 66,000 acres in Grant County, about 10,000 acres belong to the Bureau of Land
31 Management (BLM). Benton County is being asked to accept a continuation of the Grant and
32 Franklin County Wildlife Refuge that is twice the size of either Wahluke Slope county's
33 contribution to the Refuge. By helping establish this large overlay wildlife refuge as a shrub-
34 steppe habitat bank, DOE expects the region would gain overall by reducing the chance of new
35 ESA listings. The wildlife refuge would help protect the last wild stocks of anadromous fish
36 spawning in the Columbia River Hanford Reach; add ecotourism, thereby diversifying the largely
37 agrarian economy; and help ensure there is open space critical to the quality of life in eastern
38 Washington. Because DOE has chosen to work with the USFWS to establish the wildlife refuge
39 as an "overlay refuge," DOE would retain the land ownership which, in turn, would maximize the
40 payment in lieu of taxes (PILT) to the affected counties. The DOE sees its Preferred Alternative,
41 in the Final HCP EIS, as the best outcome for local, regional, and national interests.

42
43 **COMMENT CODE**

44 RL373

45
46 **LOCATION OF EIS REVISION(S)**

47 None required.

48
49 **RESPONSE**

50 Hanford Site lands were obtained by withdrawal of lands from other government agencies or by
51 purchase from non-government owners. Selection of Alternative Three in the Revised Draft
52 HRA-EIS could lead to sale or transfer of land to previous owners or their descendants. Land
53 transfer is discussed in the Final HCP EIS in Section 1.4.3.

1 **COMMENT CODE**

2 RL438 (see RL206-02)

3
4 **COMMENT CODE**

5 RL440

6
7 **LOCATION OF EIS REVISION(S)**

8 None required.

9
10 **RESPONSE**

11 DOE believes that the Preferred Alternative was the best compromise given the high quality of the
12 Hanford resources and the competing resource values of the Cooperating Agencies and
13 Consulting Tribal Governments. DOE thanks you for your support.

14
15 **COMMENT CODE**

16 RL443 (see RL361)

17
18 **COMMENT CODE**

19 RL445-01

20
21 **LOCATION OF EIS REVISION(S)**

22 None required.

23
24 **RESPONSE**

25 It is the goal of DOE to ensure that the Hanford Site lands are managed in a way that allows
26 biodiversity to be considered prior to finalizing any land-use or land-management decision.
27 Natural plant and wildlife communities have flourished, sensitive species have been preserved,
28 and archaeological and cultural resources have been protected because historically large areas
29 of the Hanford Site have been used solely for security buffers. Each alternative uses an unique
30 balance of impact avoidance (i.e., committing the land to preservation or conservation) versus
31 impact mitigation. This balance is based on the planning goals, objectives, and values (i.e.,
32 vision) of each alternative. For example, Alternative Two relies almost exclusively on avoidance
33 by designating 95 percent of the Hanford Site as Preservation. Therefore, among the
34 alternatives, Alternative Two provides the highest level of resource protection. But this resource
35 protection is at the sacrifice of multiple-use goals where the Hanford Site's natural and
36 infrastructure resources could be used for economic development. Mitigation of disturbance
37 effects through the use of policies and implementing procedures as an augmentation to the
38 alternative map, is an alternate means of resource protection exemplified best by
39 Alternative Three.

40
41 Mitigation is the form of resource protection employed by more development-oriented or multiple-
42 use oriented alternatives. Successful mitigation depends on the adopted CLUP map working in
43 concert with the CLUP policies and implementing procedures to protect unique, cultural, or
44 sensitive resources through avoidance of impacts after site-specific considerations or mitigation
45 of the impacts by prescribed mitigation procedures. The Implementing Procedures (e.g., project
46 review, resource management plans, area management plans, and NEPA or SEPA reviews)
47 provide mitigation guidelines where avoidance is less desirable than project implementation with
48 mitigation. The DOE's Preferred Alternative as presented in the Final HCP EIS has been
49 fashioned to preserve resources where there are multiple resource values, and mitigate for those
50 resources where the combination is not there, but the resource itself is of outstanding value.

51
52 To further the biodiversity goal, DOE contacted the Interior Columbia Basin Ecosystem
53 Management Project (ICBEMP), and provided the Geographic Information System (GIS) database

1 developed for this EIS as a contribution to that project. The Interior Columbia Basin Ecosystem
2 Management Project is a Federal land- and ecosystem-management plan commissioned in
3 1993. The plan affects 100 counties in seven states (including all of eastern Washington and
4 eastern Oregon), and includes more than nearly 22 million ha (54 million ac) of private property.
5 Federal agencies involved are the BLM, National Marine Fisheries Service, Forest Service, and
6 the EPA, but the Hanford Site was overlooked. Much of the plan deals with water such as the
7 Hanford Reach. The plan also proposes aggressive ecosystem restoration practices in order to
8 better control fire, insect outbreaks, and noxious disease spread. This ecosystem look at the
9 northwest interior will provide guidance to the other agencies on issues such a habitat block and
10 wildlife corridor requirements.

11
12 **COMMENT CODE**

13 RL445-02

14
15 **LOCATION OF EIS REVISION(S)**

16 None required.

17
18 **RESPONSE**

19 In WAC 365-190-070 Mineral Resource Lands, it is clear that the State GMA shares DOE's
20 concern to ensure future supply of aggregate and mineral resource material and clearly leaves
21 the decision up to the counties and cities. The DOE believes that its Conservation (Mining)
22 designation is much closer to Alternative 3 sponsors who have the State authority for designating
23 mineral resource lands that any other alternative; and that most mining impacts can be mitigated.
24 For example, one of the gravel quarry sites that was used for backfilling 100 Area remediation
25 digs has been turned into a wetland because it was close enough to the river's watertable that
26 after quarrying operations the groundwater welled up into the pit. DOE planted wetland species in
27 the pit to assist in the establishment of wetlands habitat. DOE annually spends hundreds of
28 thousands of dollars mitigating sagebrush habitat at the Hanford Site.

29
30 As a cooperating agency, DOE tried to give deference to the local agency with the responsibility
31 for planning for the resource. The following is WAC 365-190-070 concerning mineral resources
32 (with bold for added emphasis):

33
34 *(1) Counties and cities shall identify and classify aggregate and mineral resource lands from
35 which the extraction of minerals occurs **or can be anticipated**. Other proposed land uses within
36 these areas may require special attention to **ensure future supply of aggregate and mineral
37 resource material**, while maintaining a balance of land uses.*

38 *(2) Classification criteria. Areas shall be classified as mineral resource lands based on geologic,
39 environmental, and economic factors, existing land uses, and land ownership. The areas to be
40 studied and their order of study **shall be specified by counties and cities**.*

41 *(a) **Counties and cities should classify lands with long-term commercial significance for
42 extracting at least the following minerals: Sand, gravel, and valuable metallic substances.**
43 Other minerals may be classified as appropriate.*

44 *(b) In classifying these areas, counties and cities should consider maps and information on
45 location and extent of mineral deposits provided by the Washington state department of natural
46 resources and the United States Bureau of Mines. Additionally, the department of natural
47 resources has a detailed minerals classification system counties and cities may choose to use.*

48 *(c) **Counties and cities should consider classifying known and potential mineral deposits
49 so that access to mineral resources of long-term commercial significance is not
50 knowingly precluded.***

51 *(d) In classifying mineral resource lands, counties and cities shall also consider the effects of
52 proximity to population areas and the possibility of more intense uses of the land as indicated by:*

53 *(i) General land use patterns in the area;*

54 *(ii) Availability of utilities;*

- 1 (iii) Availability and adequacy of water supply;
2 (iv) Surrounding parcel sizes and surrounding uses;
3 (v) Availability of public roads and other public services;
4 (vi) Subdivision or zoning for urban or small lots;
5 (vii) Accessibility and proximity to the point of use or market;
6 (viii) Physical and topographic characteristics of the mineral resource site;
7 (ix) Depth of the resource;
8 (x) Depth of the overburden;
9 (xi) Physical properties of the resource including quality and type;
10 (xii) Life of the resource; and
11 (xiii) Resource availability in the region. [Statutory Authority: RCW 36.70A.050. 91-07-041, § 365-
12 190-070, filed 3/15/91, effective 4/15/91.]
13

14 **COMMENT CODE**

15 RL445-03
16

17 **LOCATION OF EIS REVISION(S)**

18 None required.
19

20 **RESPONSE**

21 A gravel quarry site that was used for backfilling 100 Area remediation digs has been turned into a
22 wetland since it was close enough to the river's watertable that after quarrying operations,
23 groundwater welled up into the pit. The DOE continued excavation with minimal dewatering to
24 deepen the pit enabling year-round water. The DOE planted wetland species in the pit to assist in
25 the establishment of wetlands habitat. This is a common reclamation practice for gravel
26 quarries.
27

28 **COMMENT CODE**

29 RL445-04
30

31 **LOCATION OF EIS REVISION(S)**

32 None required.
33

34 **RESPONSE**

35 Much debate could be generated as to what is a *fairly intact shrub-steppe* and *the size of the*
36 *block of land* that would be needed to support that ecosystem. In "Coyotes and Mule Deer of
37 John Day Fossil Beds National Monument: A Management Report," by Brad Griffith (1980), the
38 home range of the coyote (the largest common predator on the Hanford Site) is estimated to be
39 19.5 km² (7.5 mi²). Assuming the coyote is the top of the food chain associated with a shrub-
40 steppe community, then the minimum size to support the coyote would be the equivalent
41 minimum size of a fully functioning shrub-steppe ecosystem. If that number was further
42 extrapolated to 20 breeding females, then an area about the size of either the ALE Reserve or the
43 Wahluke Slope would be sufficient to support a population of coyotes in shrub-steppe habitat.
44

45 **COMMENT CODE**

46 RL445-05
47

48 **LOCATION OF EIS REVISION(S)**

49 None required.
50

51 **RESPONSE**

52 Because of DOE's Congressionally mandated missions, all of those areas that possess
53 significant biological or cultural resources have been placed into Preservation status under the
54 DOE's Preferred Alternative in the Final HCP EIS. DOE land use is geared toward development

1 because industrial facilities are the nature of DOE's Congressionally mandated mission. DOE's
2 Hanford programmatic missions are to clean up the site under Environmental Management, and
3 to perform science and technology research under Energy Research. Other activities, such as
4 economic development and natural resource stewardship, are secondary missions. Because
5 some of DOE missions require large isolated areas, blending the current programmatic
6 missions with the secondary missions is good business practice. The commitment of large
7 contiguous areas of the Hanford Site for Industrial uses fairly reflects the uncertainty of DOE's
8 unique Congressionally mandated industrial production missions over a 50 year planning period.
9 The No-Action Alternative shows that DOE currently considers the entire area between the
10 Columbia River and State Highway 240 as "Open Space" (reserved for future development.)

11
12 **COMMENT CODE**

13 RL445-06

14
15 **LOCATION OF EIS REVISION(S)**

16 None required.

17
18 **RESPONSE**

19 The concept of using grazing to control fire danger and the spread of noxious weeds was
20 provided to DOE by the Washington Department of Fish and Wildlife (WDFW). A Washington
21 State grazing permit (lease #WS-01) was in effect on 9,280 acres of the Wahluke Slope but has
22 been since rescinded. When asked about the permit, the WDFW representative informed the
23 cooperating agencies that the grazing permit was in effect to control fire danger by removing the
24 cheatgrass and, because cheatgrass is a non-native invader, the grazing also helped control
25 noxious weeds. In the State grazing permit (lease #WS-01) the lease says, "The goal of this
26 grazing program is to reduce the amount and vigor of cheatgrass on this site and increase the
27 amount and diversity of perennial vegetation."

28
29 WAC 197-11-800 Categorical exemption rules under (25) Natural resources management allow
30 the State to categorically exempt from threshold determination and EIS requirements,
31 (b) Issuance of new grazing leases covering a section (640 acres) of land or less; and issuance
32 of all grazing leases for land that has been subject to a grazing lease within the previous ten
33 years; and (d) Issuance of agricultural leases covering one hundred sixty contiguous acres. The
34 DOE believes that the Hanford CLUP is as protective as the State's requirements.

35
36 The DOE does not intend to allow commercial grazing on the Hanford Site, however; an attempt
37 to exercise reserved treaty rights by tribal members to pasture livestock on open and unclaimed
38 lands could result in a court decision that could allow uncontrolled tribal grazing on the Hanford
39 Site.

40
41 **COMMENT CODE**

42 RL445-07

43
44 **LOCATION OF EIS REVISION(S)**

45 None required.

46
47 **RESPONSE**

48 Most of the disturbed areas on the Hanford Site, including abandoned farmland and areas burned
49 by wildfire, are dominated by nearly pure stands of cheatgrass where the native shrub component
50 has been modified severely or replaced altogether. Grazing of livestock could alter terrestrial
51 vegetation communities by eliminating or reducing the cover of some species (i.e., bunch grass),
52 encouraging the growth of grazing-tolerant species (i.e., sagebrush), and providing opportunities
53 for weed species to become established. These changes could adversely affect associated

1 wildlife species. Cessation of grazing could also increase the fire danger by not removing flash
2 and step fuel biomass (such as cheatgrass) that carry a range fire between bushes.

3
4 With the USFWS scheduled to assume fire management responsibilities for approximately half
5 the Hanford Site, a Fire Management Plan and qualified Federal Fire Management Officer would
6 be used to reinstate fire as a management tool on the new Arid Lands National Wildlife Refuge
7 Complex.

8
9 **COMMENT CODE**

10 RL445-08

11
12 **LOCATION OF EIS REVISION(S)**

13 None required.

14
15 **RESPONSE**

16 The DOE agrees that there should be a better way of assigning habitat value to areas of the
17 Hanford Site. While there is merit to using the most current biological information, much of the
18 shrub-steppe habit is temporal in nature (physiographic climax). Therefore, others contend that
19 vegetation potential based on soil mapping (edaphic climax) should be the deciding factor. Some
20 have argued that the Hanford shrub-steppe sagebrush is an artificial disclimax maintained by
21 Hanford fire control policies and the true climax vegetation is the bunch grass community typified
22 by the ALE Reserve. If DOE were to use the most current biological data, the BRMaP Level III
23 and Level IV resources in the McGee Ranch and Riverlands that were recently destroyed by the
24 wildfires would be discounted.

25
26 The Conservation (Mining) land-use designation would allow the existing wildlife corridors to
27 function just as it would allow the native plant communities to survive. Guidance from the
28 Resource Management Plans would mitigate impacts to these resources. Preservation was only
29 applied if there was some combination of exceptional resource values (e.g., biological, cultural,
30 edaphic). This approach allowed Preservation to be applied to the saline vernal pools, the sodic
31 soil greasewood community, the sand dune dependent Indian rice grass community, and other
32 location dependent communities. Still, not all areas with exceptional vegetational structure (i.e.,
33 the 200 West sagebrush stands) are considered appropriate of the Preservation designation.

34
35 **COMMENT CODE**

36 RL445-09

37
38 **LOCATION OF EIS REVISION(S)**

39 None required.

40
41 **RESPONSE**

42 The B Reactor would be designated High-Intensity Recreation to allow tourism of the Federally
43 registered landmark consistent with the B Reactor museum proposal. The High-Intensity
44 Recreation area near Vernita Bridge (where the current Washington State rest stop is located)
45 would be expanded across State Highway 240 and to the south to include a boat ramp and other
46 visitor-serving facilities. The DOE believes that this aggregation of visitor-serving facilities is the
47 best way to allow access, yet contain recreational sprawl on the upriver end of the Hanford Site.

48
49 Tribal governments and DOE agree that the Tribal members treaty-reserved right of taking fish at
50 all "usual and accustomed" places applies to the Hanford Reach of the Columbia River where it
51 passes through Hanford, and that treaty rights are inalienable rights exercised by tribal members.
52 Associated with the fishing right is the right to erect *temporary buildings* (YIN and Nez Perce) to
53 dry fish or *suitable buildings* (CTUIR). The fishing rights have been affirmed by the Supreme
54 Court and are not negotiable. The best any Federal agency can do is to work with the Tribes to

1 make certain areas more desirable for them to exercise their rights. This is the intent of providing
2 access areas modeled after In-lieu fishing sites specifically for tribal members.

3
4 In-lieu fishing sites (e.g., in-lieu fishing sites provided by the Federal government to affected treaty
5 Tribes “in-lieu” of their traditional sites that were covered over by Federal dam reservoirs) range
6 from 21.6 ha to 0.36 ha (53.4 ac to 0.9 ac) and include paved or gravel parking lots, boat ramps,
7 restrooms, drinking water, fish cleaning stations, net repair areas and fish drying sheds, and
8 storage sheds.

9
10 **COMMENT CODE**

11 RL445-10

12
13 **LOCATION OF EIS REVISION(S)**

14 None required.

15
16 **RESPONSE**

17 The DOE cannot control tribal access to the river (a treaty reserved right), nor can DOE control
18 the use of the river (owned by the State of Washington).

19
20 **COMMENT CODE**

21 RL445-11

22
23 **LOCATION OF EIS REVISION(S)**

24 None required.

25
26 **RESPONSE**

27 Because of DOE’s Congressionally mandated missions, all of those areas that possess
28 significant biological or cultural resources have been placed into Preservation status under
29 DOE’s Preferred Alternative in the Final HCP EIS. DOE land use is geared toward development
30 because industrial facilities are the nature of DOE’s Congressionally mandated mission. DOE’s
31 Hanford programmatic missions are to clean up the site under Environmental Management, and
32 to perform science and technology research under Energy Research. Other activities, such as
33 economic development and natural resource stewardship, are secondary missions. Because
34 some of DOE’s missions require large isolated areas, blending the current programmatic
35 missions with the secondary missions is good business practice. The commitment of large
36 contiguous areas of the Hanford Site for Industrial uses fairly reflects the uncertainty of DOE’s
37 unique Congressionally mandated industrial production missions over a 50 year planning period.
38 The No-Action Alternative shows that DOE currently considers the entire area between the
39 Columbia River and State Highway 240 as “Open Space” (reserved for future development).

40
41 The Conservation (Mining) land-use designation would allow existing wildlife corridors to function
42 just as it would allow native plant communities to survive. Guidance from Resource Management
43 Plans would mitigate impacts to these resources. Preservation was only applied if there was
44 some combination of exceptional resource values (e.g., biological, cultural, edaphic). This
45 approach allowed Preservation to be applied to the saline vernal pools, the sodic soil greasewood
46 community, the sand dune dependent Indian rice grass community, and other location dependent
47 communities. Still, not all areas with exceptional vegetational structure (i.e., the 200 West
48 sagebrush stands) are considered appropriate of the Preservation designation. The fire danger
49 to DOE facilities associated with these sagebrush stands could actually result in their removal to
50 provide DOE facilities in the 200 Area with an effective fire break.

51
52 **COMMENT CODE**

53 RL445-12

1 **LOCATION OF EIS REVISION(S)**

2 None required.

3
4 **RESPONSE**

5 The Bald Eagle, Peregrine Falcon, and Aleutian Canada Goose are all expected to be delisted
6 from the ESA within two years. The bald eagle is a regular winter resident and forages on dead
7 salmon and waterfowl along the Columbia River; it does not nest on the Hanford Site although it
8 has attempted to for the past several years. The bald eagle (a Federal and Washington State
9 threatened species) is the only Federally listed wildlife species known to regularly use the
10 100 Areas. Bald eagles use groves of trees (i.e., black locust, white poplar, and Siberian elm)
11 along the Hanford Reach for winter perching, night roosts, and nesting sites (DOE-RL 1994b).
12 Buffer zones around primary night roosts and nest sites have been established in consultation
13 with the USFWS. While the night-roost locations are consistent from year to year, the nesting
14 sites have varied and are readjusted in consultation with the USFWS each year
15 (see Figure 4-24).

16
17 Steelhead and salmon are regulated as evolutionary significant units (ESUs) by the National
18 Marine Fisheries Service based on their historic geographic spawning areas. The Upper
19 Columbia River steelhead ESU was listed as threatened in August 1997. Adult steelhead migrate
20 upstream through the Hanford Reach to spawn in upriver tributaries and juvenile pass through the
21 Hanford Reach on their outward migration to the sea. In March 1999, Upper Columbia River
22 spring run chinook salmon ESU were added as endangered, and the Middle Columbia River
23 steelhead ESU were added as threatened. These races of salmonids utilize habitat in the mid-
24 Columbia River and its tributaries as it passes through many terrestrial ecosystems.

25
26 **COMMENT CODE**

27 RL445-13

28
29 **LOCATION OF EIS REVISION(S)**

30 None required.

31
32 **RESPONSE**

33 The Revised Draft HRA-EIS contained the latest Nature Conservancy information (see
34 Section 4.5.2.1, Newly Documented Plant Species). The Nature Conservancy also sent in an
35 alternative map with its comments on the Revised Draft HRA-EIS. While there is merit to using
36 the most current biological information, much of the shrub-steppe habit is temporal in nature
37 (physiographic climax). Therefore, others contend that vegetation potential based on soil
38 mapping (edaphic climax) should be the deciding factor. Some have argued that the Hanford
39 shrub-steppe sagebrush is an artificial disclimax maintained by Hanford fire control policies, and
40 that the true climax vegetation is the bunch grass community typified by the ALE Reserve. If
41 DOE were to use the most current biological data, the BRMaP Level III and Level IV resources in
42 the McGee Ranch and Riverlands that were recently destroyed by the wildfires would be
43 discounted.

44
45 The Conservation (Mining) land-use designation would allow the existing wildlife corridors to
46 function just as it would allow the native plant communities to survive. Guidance from the
47 Resource Management Plans would mitigate impacts to these resources. Preservation was only
48 applied if there was some combination of exceptional resource values (e.g., biological, cultural,
49 edaphic). This approach allowed Preservation to be applied to the saline vernal pools, the sodic
50 soil greasewood community, the sand dune dependent Indian rice grass community, and other
51 location dependent communities. Still, not all areas with exceptional vegetational structure (i.e.,
52 the 200 West sagebrush stands) are considered appropriate of the Preservation designation.

53
54 **COMMENT CODE**

1 RL445-14

2
3 **LOCATION OF EIS REVISION(S)**

4 None required.

5
6 **RESPONSE**

7 The DOE agrees that the Conservation (Mining) land-use designation should be used to allow
8 existing wildlife corridors to function and native plant communities to survive until additional study
9 and application of the principles of conservation biology can be incorporated to best determine
10 future land uses. The DOE does not agree that no consumptive uses should be allowed until a
11 future use is decided. Guidance from Resource Management Plans would mitigate impacts to
12 these resources. Preservation was only applied if there was some combination of exceptional
13 resource values (e.g., biological, cultural, edaphic), and the Conservation land-use designation
14 was used to reserve other areas for multiple-use activities.

15
16 **COMMENT CODE**

17 RL445-15

18
19 **LOCATION OF EIS REVISION(S)**

20 Introduction

21
22 **RESPONSE**

23 The DOE agrees that RCRA changes are made through RCRA permit amendments. The EIS
24 has been changed to read as follows:

25
26 This *Final Hanford Comprehensive Land-Use Plan Environmental Impact Statement* (HCP EIS)
27 considers several land uses for the Hanford Site planned for at least the next 50 years. As
28 Hanford cleanup progresses through the next 40 years, cleanup Records of Decision (RODs)
29 issued under the *Comprehensive Environmental Response, Compensation, and Liability Act of*
30 *1980* (CERCLA) and decisions made through the *Resource Conservation and Recovery Act of*
31 *1976* (RCRA) permitting process would impact some areas within the proposed land uses.

32
33 **COMMENT CODE**

34 RL445-16

35
36 **LOCATION OF EIS REVISION(S)**

37 None required.

38
39 **RESPONSE**

40 The DOE disagrees with EPA on two points.

41
42 One is that the EPA's own directive on how to incorporate land use in the CERCLA Remedy
43 gives guidance to the regions (*Land Use in the CERCLA Remedy Selection Process; Directive.*
44 *1995.* 13 pp. [EPA] U.S. Environmental Protection Agency. Office of Emergency and Remedial
45 Response. EPA/540/R-95/052. OSWER-9355.7-04. PB95-963234/HDM. Washington, D.C.)
46 Specifically, the directive presents information for considering land use in making remedy
47 selection decisions under CERCLA at NPL sites. EPA Headquarters emphasizes that early
48 community involvement (with a particular focus on the community's desired future uses of
49 property associated with the CERCLA site) should result in a more democratic decision-making
50 process, greater community support for remedies selected as a result of the process, and more
51 expedited, cost-effective cleanups.

52
53 Two is the often used State of Washington ARAR MTCA, which uses land-use plans generated
54 under the Growth Management Act as the basis for applying the Industrial cleanup level. The

1 Hanford subunit of Benton County is being planned by Benton County with this EIS, and this EIS
2 is expected to suffice for the SEPA requirements of the State of Washington's Growth
3 Management Act for the Hanford subunit of Benton County.

4
5 **COMMENT CODE**

6 RL445-17

7
8 **LOCATION OF EIS REVISION(S)**

9 2-1

10
11 **RESPONSE**

12 Comment accepted. The EIS text now reads as follows:

13
14 Support the U.S. Environmental Protection Agency (EPA), Washington State Department of
15 Ecology (Ecology), and DOE remediation decision-making processes

16
17 **COMMENT CODE**

18 RL445-18

19
20 **LOCATION OF EIS REVISION(S)**

21 None required.

22
23 **RESPONSE**

24 The Table is from the historical document, *Waste Management Operations, Hanford*
25 *Reservation, Richland, Washington: Final Environmental Statement (ERDA 1975)*,
26 Section IX.2.3, "Land Use," Table IX-2. The DOE cannot change a document over 20 years old
27 that set the NRDA I&I commitment and established DOE's authority to manage these waste
28 sites.

29
30 **COMMENT CODE**

31 RL445-19

32
33 **LOCATION OF EIS REVISION(S)**

34 None required.

35
36 **RESPONSE**

37 The DOE is aware of the groundwater problems and expects to receive a Technical Impractability
38 waiver for at least the Tritium and Carbon Tetrachloride plumes which would be consistent with
39 other EPA Technical Impractability waivers.

40
41 **COMMENT CODE**

42 RL445-20

43
44 **LOCATION OF EIS REVISION(S)**

45 Table 6-4

46
47 **RESPONSE**

48 The DOE has added a resource management plan to be prepared, the "Hanford Institutional
49 Control Plan" (e.g., long-term stewardship plan), to Table 6-4 in the Final EIS. Some of the
50 institutional controls already in the plan include SPAB review, which is triggered by Special Use
51 (qualifier number 6). *Any proposed new project that is located within an area that has a deed or*
52 *covenant restriction as a result of the remediation process (e.g., institutional controls). The*
53 *trigger for local government's involvement is also a Special Use (qualifier number 4). Any*

1 *proposed new development that is inconsistent with the land-use designation of the adopted local*
2 *counties' or cities' comprehensive plans for the Hanford Site. The TPA currently tracks the*
3 *Hanford surface waste sites, based on data from the Hanford Geographic Information System*
4 *(HGIS) and Waste Information Data System (WIDS) database. It is DOE's intent to maintain the*
5 *function of these databases for the post-closure stewardship mission.*
6

7 **COMMENT CODE**

8 RL445-21
9

10 **LOCATION OF EIS REVISION(S)**

11 None required.
12

13 **RESPONSE**

14 Each CERCLA ROD should be NEPA equivalent in its supporting documentation. The DOE
15 agrees that once this EIS NEPA decision is made, there should be coordination of gravel quarry
16 sites. McGee Ranch is a specialized silt-loam soil site. The DOE is looking into a coordinated
17 NEPA analysis to address the gravel quarries on a site-wide basis.
18

19 **COMMENT CODE**

20 RL449
21

22 **LOCATION OF EIS REVISION(S)**

23 None required.
24

25 **RESPONSE**

26 The issue of Federal versus local control of lands is out of scope for this document.
27

28 **COMMENT CODE**

29 RL453
30

31 **LOCATION OF EIS REVISION(S)**

32 None required.
33

34 **RESPONSE**

35 During the public comment period on the August 1996 Draft HRA-EIS, several entities formally
36 requested cooperating agency status in developing the Final HCP EIS. These agencies included
37 the DOI, City of Richland, and Benton and Franklin counties (with whom the State of Washington
38 has placed land-use planning authority under the *Washington Growth Management Act of 1990*
39 [GMA]). Each of these agencies has a legal interest in land-use planning at the Hanford Site
40 because each has some responsibility or interest in managing Hanford lands or dependent
41 resources. The National Science Foundation is viewed more as a tenant on the Hanford Site with
42 a keen interest in activities around its LIGO facility. It is still the intent of DOE to limit the
43 membership to agencies with a legal interest in land-use planning at the Hanford Site. LIGO
44 personnel are invited and encouraged to meet with DOE's Real Estate Officer anytime.

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COMMENT CODE

RTR001

LOCATION OF EIS REVISION(S)

3.3.2.3.2

RESPONSE

Comment accepted. The requested text box (and explanation) has been added to the Final HCP EIS.

COMMENT CODE

RTP010

LOCATION OF EIS REVISION(S)

None required.

RESPONSE

The DOE agrees that a holistic effort is needed to integrate all of the Hanford issues. DOE has the Hanford Advisory Board to integrate Public Involvement efforts, a Technical Issues Management List (TIML) group to integrate DOE Programs, and a Program Integration Division to produce the *Hanford Strategic Plan* (HSP). The Strategic Plan is the public document that lays the vision for the Hanford Site as a whole.

COMMENT CODE

RTP013

LOCATION OF EIS REVISION(S)

None required.

RESPONSE

The DOE agrees that a holistic effort is needed to integrate all of the Hanford risk issues. The Defense Nuclear Facilities Safety Board issued a finding in 1994 that suggested DOE look at the cumulative impacts to the groundwater of its operations. Additionally, the DOE Waste Management Order 5820.2a required that a performance assessment be implemented with each new burial ground. The 1996 Draft HRA-EIS attempted to integrate the vadose zone and groundwater risk estimates under four alternative-use scenarios with two different approaches to cleanup (e.g., capping in place or removal). The Columbia River Comprehensive Impact Assessment (CRCIA) began in the same spirit – determining overall risk, duration of the risk in the area, and what the factors are that control risk that can be controlled by the remediation process.

COMMENT CODE

RTS013

LOCATION OF EIS REVISION(S)

None required.

RESPONSE

In WAC 365-190-070 Mineral Resource Lands, it is clear that the State GMA shares DOE’s concern to ensure future supply of aggregate and mineral resource material, and clearly leaves the decision up to the counties and cities. The DOE believes that its Conservation (Mining) designation is much closer to that of the sponsors of Alternative Three, who have more State

1 authority for designating mineral resource lands than any other alternative, and that most mining
2 impacts can be mitigated. For example, one of the gravel quarry sites that was used for
3 backfilling 100 Area remediation digs has been turned into a wetland because it was close
4 enough to the river's watertable that, after quarrying operations, the groundwater welled up into
5 the pit. The DOE planted wetland species in the pit to assist in the establishment of wetlands
6 habitat. The DOE spends hundreds of thousands of dollars annually mitigating sagebrush habitat
7 at the Hanford Site.

8
9 As a cooperating agency, DOE tried to give deference to the local agency with the responsibility
10 for planning for the resource. The following is WAC 365-190-070 concerning mineral resources
11 (with bold added for emphasis):

12
13 *(1) Counties and cities shall identify and classify aggregate and mineral resource lands from
14 which the extraction of minerals occurs **or can be anticipated**. Other proposed land uses within
15 these areas may require special attention to **ensure future supply of aggregate and mineral
16 resource material**, while maintaining a balance of land uses.*

17 *(2) Classification criteria. Areas shall be classified as mineral resource lands based on geologic,
18 environmental, and economic factors, existing land uses, and land ownership. The areas to be
19 studied and their order of study **shall be specified by counties and cities**.*

20 *(a) **Counties and cities should classify lands with long-term commercial significance for
21 extracting at least the following minerals: Sand, gravel, and valuable metallic substances.**
22 Other minerals may be classified as appropriate.*

23 *(b) In classifying these areas, counties and cities should consider maps and information on
24 location and extent of mineral deposits provided by the Washington state department of natural
25 resources and the United States Bureau of Mines. Additionally, the department of natural
26 resources has a detailed minerals classification system counties and cities may choose to use.*

27 *(c) **Counties and cities should consider classifying known and potential mineral deposits
28 so that access to mineral resources of long-term commercial significance is not
29 knowingly precluded.***

30 *(d) In classifying mineral resource lands, counties and cities shall also consider the effects of
31 proximity to population areas and the possibility of more intense uses of the land as indicated by:*

32 *(i) General land use patterns in the area;*

33 *(ii) Availability of utilities;*

34 *(iii) Availability and adequacy of water supply;*

35 *(iv) Surrounding parcel sizes and surrounding uses;*

36 *(v) Availability of public roads and other public services;*

37 *(vi) Subdivision or zoning for urban or small lots;*

38 *(vii) Accessibility and proximity to the point of use or market;*

39 *(viii) Physical and topographic characteristics of the mineral resource site;*

40 *(ix) Depth of the resource;*

41 *(x) Depth of the overburden;*

42 *(xi) Physical properties of the resource including quality and type;*

43 *(xii) Life of the resource; and*

44 *xiii) Resource availability in the region. [Statutory Authority: RCW 36.70A.050. 91-07-041, § 365-
45 190-070, filed 3/15/91, effective 4/15/91.]*

46
47 **COMMENT CODE**

48 RTS017

49
50 **LOCATION OF EIS REVISION(S)**

51 None required.

52
53 **RESPONSE**

1 The intent of bringing in the cooperating agencies to develop their own alternatives was to provide
2 the best range of alternatives for the public and DOE to review. The NEPA process does not
3 equate to a voting process where the most comments “for” or “against” wins. The NEPA
4 process is a way for the agency’s decision maker to gather differing point of views on a proposed
5 action. The agency’s decision maker does not have to make a popular decision, only an informed
6 decision. Therefore, the number of comments are less important than the content of the
7 comment.

8
9 **COMMENT CODE**

10 RTM005

11
12 **LOCATION OF EIS REVISION(S)**

13 None required.

14
15 **RESPONSE**

16 Congressional actions are outside the scope of this administrative-action EIS.

17
18 **COMMENT CODE**

19 RTM007

20
21 **LOCATION OF EIS REVISION(S)**

22 None required.

23
24 **RESPONSE**

25 DOE Hanford has a history steeped in national security issues that sometimes produce
26 surprises. During the plutonium production days, the Federal government purchased portions of
27 the Benton County shoreline in the Reactors area (from the high-water mark to the low-water
28 mark) for security purposes.

Index by Organization

Organization	First Name	Last Name	Contact ID
Tribal Governments			
Confederated Tribes of the Yakama Indian Nation	Russell	Jim	RL097
Nez Perce Tribe	Sabotta	Patrick	RL199
Federal Elected Officials			
United State Senate	Patty	Murray	RL440
State and Local Elected Officials			
Benton County Board of Commissioners	Claude L.	Oliver	RL290
Benton PUD	James	Sanders	RL381
City of Richland	Ron	Raburn	RL349
Grant County Commissioner	LeRoy	Allison	RTM016
Grant County Commissioner	Deborah	Moore	RTM002
Grant County Commissioner	Tim	Snead	RTM003
Grant County Commissioner	Tim	Snead	RL001
Grant County Planning Department	Matt	Morton	RTM001
Grant County Port District #3	Mike	Conley	RLM003
Grant County Port District #3	Mike	Conley	RTM005
Grant County Public Hospital District #5	Diana	Weberline	RL442
Port of Benton	Ben	Bennett	RL200
Port of Benton	Leo	Bowman	RL319
Port of Mattawa	Mike	Conley	RL307
Port of Mattawa	Richard	Leitz	RTM004
Wahluke School District Superintendent	William	Miller	RTM006
Federal Officials			
Department of Human & Health Services	Kenneth W.	Holt	RL166
Dept. of the Interior, Fish and Wildlife Service	David	McMullen	RL361
Hanford Advisory Board	Merilyn B.	Reeves	RL293
Laser Interferometer Gravitational-Wave Observatory (LIGO) Hanford	Fred	Raab	RL446
LIGO Hanford Observatory	Fred	Raab	RE024
LIGO Hanford Observatory	Fred	Raab	RE030
Pacific Northwest National Laboratory	Larry	Cadwell	RE022
Pacific Northwest National Laboratory	Roy	Gephart	RL201
Pacific Northwest National Laboratory	Larry	Cadwell	RL325
U.S. Department of the Interior	Preston	Sleeger	RL443
U.S. EPA, Region 10	Richard	Parkin	RL445
State and Local Officials			
Energy Northwest	Carl	Van Hoff	RTM008
Nuclear Safety Division, Oregon Office of Energy	Mary Lou	Blazek	RL291
State of Washington Department of Ecology	Rebecca J.	Inman	RL202
Washington Dept. of Fish and Wildlife	Dale	Bambrick	RL318
WPPSS/Energy Northwest	Rod L.	Webring	RL233

	Organization	First Name	Last Name	Contact ID
1				
2	Interest Groups			
3	American Rivers	Katherine P.	Ransel	RL179
4	American Rivers	Katherine	Ransel	RTP004
5	Audubon Society of Portland	Paul	Ketcham	RTP008
6	B Reactor Museum Association	Delbert	Ballard	RL147
7	B Reactor Museum Association	Gene	Weisskopf	RTR001
8	B Reactor Museum Association	Lyle	Wilhelm	RTR015
9	Black Hills Audubon Society	Kristina	Sawyer	STR0945
10	Blue Mountain Audubon Society	Chris	Howard	STR0475
11	Blue Mountain Audubon Society	Shirley	Muse	STR0776
12	Central Basin Audubon Society	Holly A.	Hustell	STR0495
13	Central Basin Audubon Society	Joye	Lucas	STR0671
14	Columbia Basin Environmental Council	William	Riley	RL237
15	Columbia River Conservation League	Bob	Wilson	RL185
16	Columbia River Conservation League	Dennis	Kreid	RLR004
17	Columbia River Conservation League	Bob	Wilson	RTR006
18	Environment Information Network	Barry	Jacobson	RTR003
19	Executive Board of Madrae Audubon Society	Peter V.	Levque	STR0640
20	Gorge Paddlers Club	Kim	Burkland	RL074
21	Grant County Economic Development Council	Terry	Brewer	RTM017
22	Hanford Watch	Paige	Knight	RTP003
23	Heart of America Northwest	Gerald	Pollet	RL317
24	Heart of America Northwest	Gerry	Pollet	RTS025
25	Heart of America Northwest	Gerry	Pollet	RTS004
26	Idaho Conservation League	Fred W.	Rale	STR0882
27	Idaho Steelhead and Salmon Unlimited	Steve	Birkinbine	STR0086
28	Idaho Steelhead and Salmon Unlimited	Mitch	Sonchotena	STR0993
29	In Support of Save the Reach Coalition	Caprice	Consalvo-Olson	RL019
30	In Support of The Nature Conservancy	James	Masson	RL016
31	In Support of The Nature Conservancy	Shawn	Summersett	RL024
32	In support of the Sierra Club	Lorree	Gardner Milne	RL231
33	Kettle Range Conservation Group	Timothy J.	Coleman	RL230
34	Kittitas Audubon Society	Hal	Lindstrom	RL448
35	Lower Columbia Basin Audubon Society	Rick	Leaumont	RL204
36	Lower Columbia Basin Audubon Society	Rick	Leaumont	RTR027
37	Member of the Sierra Club	Betty	Durant	RL132
38	Mid-Columbia Archaeological Society	Greg	Greger	STR0378
39	National Audubon Society	John	Flicker	RL282
40	Nature Conservancy of Washington	Ellen	Smith	RL133
41	North Cascades Audubon Society	Frank	Sears	STR0956
42	NW Council of Governments and Associates	Robert	Lonn	RL248
43	Oregon Peace Works	Michael G.	Carrigan	STR0162
44	Our Lady of the Snows Catholic Church	Elizabeth	Kugi	RL379
45	Pacific Northwest Region, Trout Unlimited	James	Wilcox	RL042
46	Palouse Audubon Society	Loring M.	Jones	STR0526
47	Physicians for Social Responsibility	Dick	Belsey	RTP002
48	Richland Federated Woman's Club of the General	Carol B.	Raherts	STR0880
49	Federation of Woman's Clubs, International			
50	Richland Rod and Gun Club	David A.	Myers	STR0777

	Organization	First Name	Last Name	Contact ID
1	Richland Rod and Gun Club	Jack	Pickard	STR0856
2	Rivers Council of Washington	Joy	Huber	STR0483
3	Rivers Council of Washington	Walter	Norst	STR0796
4	Saddle Mountain Bible Church	Alan	Hilliker	RL298
5	Save the Reach	Scott	Woodward	RTR004
6	Save the Reach	Lupito	Flores	RTS024
7	Save the Reach (a campaign of the Lower Columbia Basin Audubon Society)	Lupito	Flores	RTR02
8				
9	Save the Reach (a campaign of the Lower Columbia River Audubon Society)	Lupito	Flores	RTP006
10				
11	Seattle Audubon Society	Chuck	Lennox	RL222
12	Seattle Audubon Society	Chris	Peterson	STR0841
13	Seattle Audubon Society	Helen	Ross	STR0920
14	Senior Legislative Coalition of Eastern Washington	Frank	Yuse	RTS012
15	Sierra Club	Margie	Van Cleve	RL266
16	Sierra Club	Jim	Baker	RTP012
17	Sierra Club Upper Columbia/Eastern Environmental	Paul	Lindholdt	RE012
18	Sierra Club Upper Columbia/Eastern Environmental	Paul	Lindholdt	RL308
19	Sierra Club Upper Columbia/Eastern Environmental	Paul	Lindholdt	RLS001
20	Skagit Audubon Society	A. J.	Kuntz	STR0604
21	Soap Lake Chamber of Commerce	Susan K.	Riley	RL241
22	Spokane Canoe and Kayak Club	Charles	Fisk	RL296
23	Spokane Canoe and Kayak Club	Charles	Fisk	RTS002
24	Spokane Chapter, Physicians for Social Responsibility	Jeff	Hedge	RTS022
25	Steelhead Committee, Federation of Fly Fishers	Bill	Redman	RL209
26	Supporter of The Nature Conservancy	Jacqueline	Gardner	RE002
27	Supporter of The Nature Conservancy	Richard	Wallace	RE003
28	Supporter of The Nature Conservancy	Robert	Hatton	RE004
29	Supporter of The Nature Conservancy	Donald	Benson	RL022
30	Supporter of The Nature Conservancy	Iris	Strehlow	RL111
31	Tahoma Audubon Society	Heather	Ballash	STR0057
32	Tahoma Audubon Society	Marcus	Roening	STR0909
33	The Central Basin Audubon Society	James	Clark	STR0179
34	The Ephrata Sportsman's Association	Donald A.	Galbreath	STR0345
35	The Inter-Mountain Alpine Club of Richland, Washington	Alan	Hosler	STR0468
36	The Inter-Mountain Alpine Club of Richland, Washington	Randy	Theime	STR1057
37	The Lands Council	Mike	Peterson	RL243
38	The Lands Council	Lisa	Ramirez	RTS019
39	The Mountaineer	Stan	Engle	STR0298
40	The National Audubon Society	Helen	Engle	STR0297
41	The Nature Conservancy	Mary	Nowakowski	RL011
42	The Nature Conservancy	Kathy	Wing	RL107
43	The Nature Conservancy	Beverly	McLaughlin	RL271
44	The Nature Conservancy	Laura	Smith	RTS014
45	The Nature Conservancy of Washington	Elliott	Marks	RL359
46	The Oregon Natural Desert Association	Bill	Lyons	STR0676
47	The Oregon Natural Desert Association	Carrie	Stillwell	STR1018
48	The Washington Wilderness Coalition	Cathie	Currie	STR0226
49	The Whidbey Audubon Society	William E.	Bradkin	STR0108
50	The Whidbey Audubon Society	Allard	Calkins	STR0150

	Organization	First Name	Last Name	Contact ID
1	The Yakima Valley Audubon Society	June	Hamilton	STR0405
2	The Yakima Valley Audubon Society	Maia	Kelly	STR0543
3	Tri-City Industrial Development Council	William	Martin	RL322
4	Tri-State Sleetheaders (hunting)	Jim	Deeney	STR0242
5	Trout Unlimited	Bill	Robinson	STR0904
6	Trout Unlimited	James E.	Wilcox	STR1127
7	Upper Columbia River Group of the Sierra Club and the	Pauline	Lindholdt	RTS017
8	Eastern Environmental Student Group at Eastern			
9	Washington University (faculty)			
10	Upper Columbia River Group, Sierra Club	Paul	Linholdt	STR0646
11	Vancouver Audubon Society	William	Feddeler	RL324
12	Vancouver Audubon Society	Gretchen	Starke	RTP011
13	Vancouver Audubon Society	Sue J.	Cannard	STR0156
14	Vancouver Audubon Society	Gretchen	Stearns	STR1005
15	Vancouver Audubon Society (Washington)	Galen	Schoental	STR0951
16	Washington Environmental Council	John	de Yonge	RLR001
17	Washington Environmental Council	Jack	Young	RTR016
18	Washington Environmental Council	Bonnie	Mager	RTS020
19	Washington Native Plant Society	Diane	Ackerman	RL035
20	Washington Native Plant Society	Karen	Hinman	RL103
21	Washington Wildlife Federation	Leonard	Steiner	RL043
22	Washington Wildlife Federation	Thea	Levkovik	STR0639
23	Wenatchee Valley Fly Fishers	Irum	Conner	STR0195
24	Wenatchee Valley Fly Fishers	Dan	Paquette	STR0823
25	Willapa Hills Audubon Society	Ruth	Deery	RL452
26	WNHP, Forest Resources Division	Rex	Crawford	RL283
27	Women's International League for Peace and Freedom	Barbara	Drageaux	RLP001
28	Women's International League for Peace and Freedom	Barbara	Drageaux	RTP009
29	WSU-TC Shrub-Steppe Society	Suzanne	Beall	STR0070

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Index by Name of Commenter

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Last Name	First Name	Organization Name	ContactID
Abolins	Terri		STR0004
Abrams	Robert B.		STR0005
Absher	Janice K.		RL203
Ackerman	Diane	Washington Native Plant Society	RL035
Ackerman	Laura		RTS018
Ackerman	Diane		STR0006
Ackerman	Diane		STR0007
Ackerman	Scott		STR0008
Ackerman	Scott		STR0009
Adair	William		RL371
Adair	William		STR0010
Adams	Ed		RL075
Adams	Scot		STR0011
Adkins	Dorothy		RL229
Adkinson	Clyde		STR0012
Adkinson	Linda		STR0013
Adler	Jason		STR0014
Adler	Jason G.		STR0015
Aguilar	Lupe		MCL001
Aguilar	Lupe		MCL005
Ahart	Martha		STR0016
Ahart	Paul		STR0017
Ahrens	Marjorie H.		RL162
Ahublade	Chris		STR0018
Aiken	Michael D.		STR0019
Ainsworth	John		STR0020
Ainsworth	Muriel		STR0021
Alberg	Michael		FTS002
Alberg	Shane		FTS003
Allison	LeRoy	Grant County Commissioner	RTM016
Alspaugh	Alga		STR0022
Alspaugh	Don		STR0023
Alvarado	Jose		FTS004
Alvarado	Minnie		FTS005
Alvarado	Pedro		FTS006
Alvarado	Pedro		MCL036
Alvarado	Anselmo		STR0024
Amato	Janelle		STR0025
Amato	Lance		STR0026
Anderson	Albert		FTS007
Anderson	Kevin		FTS008
Anderson	Ray		FTS009
Anderson	Kevin		MCL029
Anderson	Linda		RL109
Anderson	Brent		RL332
Anderson	Diane		STR0027
Anderson	Erik		STR0028
Anderson	June E.		STR0029

	Last Name	First Name	Organization Name	ContactID
1	Anderson	Karl		STR0030
2	Anderson	Martha Ellen		STR0031
3	Anderson	Sharleen		STR0032
4	Angell-Erickson	Jimmye		RL128
5	Anonymous			RL137
6	Applegate	William		STR0033
7	Ard	Kevin E.		STR0034
8	Ard	Sarah E. H.		STR0035
9	Armitage	E.V.		STR0036
10	Armstrong	Curtis		RL245
11	Armstrong	Francine	Richland Federal Women's Club	STR0037
12	Armstrong	James C.		STR0038
13	Arnold	Andy		RL337
14	Arnold	Al		STR0039
15	Arnold	Nancy		STR0040
16	Arquesuella	Ellen		STR0041
17	Arteaga	Esmeralda		FTS010
18	Arteaga	John		FTS011
19	Arteaga	John		MCL047
20	Ashby	Suzette		RL309
21	Ashby	Suzette		RLS002
22	Ashenfelter	Nancy		RL092
23	Asmus	Shelly		STR0042
24	Atwood	Lynn		STR0043
25	Avery	Pauline A.		STR0044
26	Axt	Kevin		STR0045
27	Baasch	Gaie		STR0046
28	Bacon	John		STR0047
29	Badalamente	Richard		RL051
30	Badami	Theodore		STR0048
31	Baer	Donald		STR0049
32	Baer	Ellen Kohler		STR0050
33	Bailey	Kim		RL172
34	Bailie	Rita		RL277
35	Baker	Jim	Sierra Club	RTP012
36	Baker	D'Arcy		STR0051
37	Baker	Ginna		STR0052
38	Baker	Robert A.		STR0053
39	Baker	Ronald B.		STR0054
40	Baldi	J.E.		RL366
41	Baldi	J.E.		STR0055
42	Baldwin	June E.		STR0056
43	Ballard	Odis		FTS012
44	Ballard	Odis		MCL022
45	Ballard	Delbert	B Reactor Museum Association	RL147
46	Ballash	Heather	Tahoma Audubon Society	STR0057
47	Ballou	Nathan		RL174
48	Ballou	Nat		RTR05
49	Ballou	Elaine L.		STR0058
50	Ballou	Nathan E.		STR0059

	Last Name	First Name	Organization Name	ContactID
1	Barajas	Javier		FTS013
2	Barajas	Laureano		RL357
3	Barbour	Louis		STR0060
4	Barker	Mary Lou		STR0061
5	Barnaby	Theresa L.		STR0062
6	Barnett	Rae		RL321
7	Barneye	Lawrence D.		STR0063
8	Barr	Susanne M.		STR0064
9	Barragan	Jesus		FTS014
10	Barrett	James		RL070
11	Barwig	Susan G.		STR0065
12	Bauer	George		STR0066
13	Bauman	Nathan		STR0067
14	Bauman	Sherrie		STR0068
15	Bayley	Diane		STR0069
16	Beall	Suzanne	WSU-TC Shrub-Steppe Society	STR0070
17	Bean	Joyce		STR0071
18	Beary	Mickey		STR0072
19	Beauchene	Bruce		FTS015
20	Beauhene	Bruce		MCL011
21	Beaver	Commodore E.		FTS016
22	Bee	Juanita	Richland Federal Women's Club	STR0073
23	Beier	Ann		STR0074
24	Bell	Mike		STR0075
25	Bell	Norm		STR0076
26	Belles	Elizabeth		RL257
27	Bellinger	Richey		RL160
28	Belsey	Dick	Physicians for Social Responsibility	RTP002
29	Bennett	Ben	Port of Benton	RL200
30	Bennett	Sheila Q.		STR0077
31	Beno	Bertha		STR0078
32	Benson	Donald	Supporter of The Nature Conservancy	RL022
33	Bentley	John		RTS010
34	Berg	Heidi		STR0079
35	Bergdahl	Betty		STR0080
36	Bern	Dawn		RL252
37	Berry	Jim		RL302
38	Berry	Marlene		RL370
39	Berry	Jim		RTS016
40	Berry	Kathryn		STR0081
41	Beuchler	Janet		STR0082
42	Beukelman	Barbara R.		STR0083
43	Bevis	Carl		RE029
44	Bevis	Kenneth		RL320
45	Bienz	Bart		STR0084
46	Bigas	John		RL003
47	Bihl	Donald		STR0085
48	Bird	Roger		FTS017
49	Birkinbine	Steve	Idaho Steelhead and Salmon Unlimited	STR0086
50	Bise	Robert		FTS018

	Last Name	First Name	Organization Name	ContactID
1	Bixler	Bob		STR0087
2	Bixler	Jenny		STR0088
3	Black	Janice L.		STR0089
4	Black	Michael T.		STR0090
5	Blakely	Cheryl		RL284
6	Blazek	Mary Lou	Nuclear Safety Division, Oregon Office of Energy	RL291
7	Blue	Marian		RL072
8	Blum	Fred		FTS019
9	Blyckert	Sally		STR0091
10	Bolin	Cheryl		STR0092
11	Bolin	J.E.		STR0093
12	BonDurant	Bruce B.		STR0094
13	Boone	James		RL112
14	Borghese	Jane		STR0095
15	Boston	Allen P.		STR0096
16	Boston	Glendine		STR0097
17	Boswell	Donald H.		STR0098
18	Boswell	Norma D.		STR0099
19	Bothke	Jan		STR0100
20	Bothke	Les		STR0101
21	Botta	Barbara		RL343
22	Bouchey	Annette		STR0102
23	Bowen	Pearl		RL098
24	Bowen	Chris		RL143
25	Bowen	William		RL450
26	Bowen	Fay L.	Richland Federal Women's Club	STR0103
27	Bowman	William		FTS020
28	Bowman	Leo	Port of Benton	RL319
29	Bowman	Sandra		STR0104
30	Boyd	James	The Boyd Hydroelectric Project	STR0105
31	Bradburn	Steve		RTS007
32	Bradkin	Cheryl G.		STR0106
33	Bradkin	William E.		STR0107
34	Bradkin	William E.	The Whidbey Audubon Society	STR0108
35	Brady	Barb		STR0109
36	Brady	Steve		STR0110
37	Brain	Mark		STR0111
38	Brain	Terry M.		STR0112
39	Brattebo	Ben		RL310
40	Brattebo	Tom		RL311
41	Brattebo	Ben		RLS003
42	Brattebo	Tom		RLS004
43	Braunwar	Janelle		STR0113
44	Brawn	Ken		RL303
45	Breed	Edith		STR0114
46	Breed	James		STR0115
47	Breier	Michael H.		STR0116
48	Breier	Tammy A.		STR0117
49	Brewer	Howard		RL354
50	Brewer	Terry	Grant County Economic Development Council	RTM017

	Last Name	First Name	Organization Name	ContactID
1	Brimhall	John		STR0118
2	Brimhall	Phyllis		STR0119
3	Brinkman	Aline		STR0120
4	Brinkman	Loris		STR0121
5	Brinkman	Louis		STR0122
6	Brothers	Alan Jay		STR0123
7	Brothers	Joe		STR0124
8	Brothers	Mary Lou		STR0125
9	Brotherton	Kristine		RL159
10	Brotherton	Kristine R.		STR0126
11	Brouns	Katherine		STR0127
12	Brouns	Richard		STR0128
13	Browsers	Howard		STR0129
14	Brown	Warren		RL013
15	Brown	Sheilagh		RL153
16	Brown	Madeline		RTR014
17	Brown	Don H.		STR0130
18	Brown	Jackie		STR0131
19	Brown	Madeleine		STR0132
20	Brown	Michael		STR0133
21	Brownlee	Cheryl		RL265
22	Bruno	Marian E.		STR0134
23	Bruno	Timothy A.		STR0135
24	Bryer	Elizabeth		RL189
25	Bubala	Lou		RL149
26	Buche	Brian W.		STR0136
27	Buchman	Edward		MCL037
28	Buchmann	Edward		FTS021
29	Bucholz	Leah	Richland Federal Women's Club	STR0137
30	Buck	Jean		STR0138
31	Buckley	Thelma		FTS022
32	Buehler	Mark		STR0139
33	Bunes	Kammie		RE021
34	Bunes	Kammie		RL376
35	Burford	Donald		STR0140
36	Burgess	Hope		STR0141
37	Burk	Douglas		FTS023
38	Burk Zielstra	Barbara		RL178
39	Burke	Charles		RL279
40	Burkland	Kim	Gorge Paddlers Club	RL074
41	Burreil	Bill		STR0142
42	Bushore	Robin P.		STR0001
43	Byers	Karen E.		STR0143
44	Cadd	Polly		STR0144
45	Cadoret	Natalie		STR0145
46	Cadwell	Larry	Pacific Northwest National Laboratories	RE022
47	Cadwell	Larry	Pacific Northwest National Laboratories	RL325
48	Cagle	Dave		FTS024
49	Cahn	Alma		RE019
50	Cahn	Alma		STR0146

	Last Name	First Name	Organization Name	ContactID
1	Cahn	Herbert		STR0147
2	Caire	Gloria		STR0148
3	Calaway	Bret		FTS025
4	Calaway	Cameron		FTS026
5	Calaway	Courtney		FTS027
6	Calaway	Eric		FTS028
7	Calaway	Jeffrey		FTS029
8	Calaway	Kerry		FTS030
9	Calaway	Kip		FTS031
10	Calaway	Bret		MCL025
11	Calaway	Kerry		MCL031
12	Calaway	Kip		MCL033
13	Caldwell	Jean E.		RL161
14	Calkins	Allard		STR0149
15	Calkins	Allard	The Whidbey Audubon Society	STR0150
16	Calkins	Marzrette S.		STR0151
17	Camaioni	Don		STR0152
18	Camaioni	Kaye		STR0153
19	Campbell	Ann		STR0154
20	Campbell	Thomas A.		STR0155
21	Canagnaro	Monica		RL225
22	Candee	Kurt		FTS032
23	Cannard	Sue J.	Vancouver Audubon Society	STR0156
24	Cardenas	German		FTS033
25	Cardenas	Jesus		FTS034
26	Carl	Tim D.		STR0157
27	Carlson	Nick	Carlson Orchards	RL329
28	Carlson	Claudia		STR0158
29	Carlson	Claudia J.		STR0159
30	Carlson	Thomas J.		STR0160
31	Carlson	Tom		STR0161
32	Carranza	Alberto		FTS035
33	Carranza	Alberto III		FTS036
34	Carrigan	Michael G.	Oregon Peace Works	STR0162
35	Carroll	George		FTS037
36	Carsey	Pamela		RL052
37	Carter	Dorothy		RL212
38	Carter	Gary		RL373
39	Carter-Smith	Ashli		RL134
40	Cathey	Phillip		STR0163
41	Catts	Dana K.		STR0164
42	Caulton	Donna		RE016
43	Cervantes	Sergio		RL297
44	Chamberlain	Bill		STR0165
45	Chamberlain	Jan		STR0166
46	Chambers	Geraldine		RL041
47	Chapman	John H.		STR0167
48	Chapman	John H.	Morrison Construction Services, Inc.	STR0168
49	Chapman	Jonathan		STR0169
50	Chase	Cody		STR0170

	Last Name	First Name	Organization Name	ContactID
1	Chatters	James C.		STR0171
2	Chaver	Reyaldo		FTS038
3	Chiotti	Carla		STR0172
4	Christensen	Del		FTS039
5	Christensen	Bryan		STR0173
6	Christenson	John E.		STR0174
7	Christopherson	Donald H.		STR0175
8	Chumley	Michael		FTS040
9	Chumley	Ray		FTS041
10	Claflein	Peggy		RL037
11	Clark	James		RL084
12	Clark	Paula		RL355
13	Clark	Steven		RL438
14	Clark	Paula		RTR025
15	Clark	David E.		STR0176
16	Clark	Gail Brusen		STR0177
17	Clark	Harriet A.		STR0178
18	Clark	James	The Central Basin Audubon Society	STR0179
19	Clark	Larry		STR0180
20	Clark	Paula		STR0181
21	Clark	Steven W.		STR0182
22	Cleavenger	Kerry		STR0183
23	Cleavenger	Lynn		STR0184
24	Clough	Kathleen A.		STR0185
25	Clyde	Bess		FTS042
26	Clyde	Craig		FTS043
27	Clyde	D.E.		FTS044
28	Clyde	David Patrick		FTS045
29	Cobleigh	Ken		RL076
30	Coder	Woodrow W.		STR0186
31	Cody	Jack		RE026
32	Coffin	Christopher		STR0187
33	Cole	Chris		STR0188
34	Coleman	Timothy J.	Kettle Range Conservation Group	RL230
35	Coleman	Danielle		STR0189
36	Coleman	Sue		STR0190
37	Coleman	Tim		STR0191
38	Collins	Jack		STR0192
39	Colwell	Steve		STR0193
40	Conca	James	UFA Adventures, Inc.	STR0194
41	Conley	Mike		FTS046
42	Conley	Mike	Port of Mattawa	RL307
43	Conley	Mike	Grant County Port District #3	RLM003
44	Conley	Mike	Grant County Port District #3	RTM005
45	Conner	Irum	Wenatchee Valley Fly Fishers	STR0195
46	Conrad	Kathryn M.		STR0196
47	Conrad	Keith C.		STR0197
48	Consalvo-Olson	Caprice	In Support of Save the Reach Coalition	RL019
49	Conti	Georgia		RL100
50	Conwell	Bill		FTS047

	Last Name	First Name	Organization Name	ContactID
1	Cook	Lonnie	Morrison Construction Services, Inc.	STR0198
2	Cordell	Tom		RL122
3	Cordova	Royce		FTS048
4	Cordova	Walter		FTS049
5	Cordova-Weber	Carmen		FTS050
6	Corl	Dawn		RL167
7	Cortina	Abel A.		STR0199
8	Cothier	Neal F.		STR0200
9	Couchman	Lester L.		STR0201
10	Couchman	Wanda		STR0202
11	Courteau	Orel		STR0203
12	Cox	Vern		FTS051
13	Cox	Vern		MCL028
14	Coyle	Thomas		RL049
15	Crandall	Gilford		STR0204
16	Crandall	Helen		STR0205
17	Crawford	Rex	Forest Resources Division	RE025
18	Crawford	Rex	WNHP, Forest Resources Division	RL283
19	Criddle	Andrew		STR0206
20	Criddle	Jim		STR0207
21	Criddle	Kathy		STR0208
22	Criddle	Nick		STR0209
23	Criddle	Tom		STR0210
24	Crippen	Joni		RL048
25	Crocker	Lewis		FTS052
26	Crocker	Robert		FTS053
27	Croft	Bob		STR0211
28	Crose	Harold		STR0212
29	Crose	Judy		STR0213
30	Crosette	Paul		RL139
31	Crowder	Bill		STR0214
32	Crowder	June		STR0215
33	Crump	Bob		FTS054
34	Crump	Bob		MCL032
35	Cuevas	Manuel		RL232
36	Culbert	Gary		STR0216
37	Culbert	Sally		STR0217
38	Culverwell	Jim		FTS055
39	Culverwell	Sandy		FTS056
40	Cumiskey	Elizabeth		STR0218
41	Cumiskey	James		STR0219
42	Cummings	Agnes M.		STR0220
43	Cummings	Connie		STR0221
44	Cummings	Matt		STR0222
45	Cummisk	Gary		STR0223
46	Cummisk	Gia		STR0224
47	Cunningham	Jane		RL289
48	Curdy	James		FTS057
49	Curdy	James		MCL009
50	Curdy	Jim		RTM019

	Last Name	First Name	Organization Name	ContactID
1	Curdy	Jim		RTM007
2	Curdy, Jr.	Jim		RL260
3	Curet	H.D.		STR0225
4	Curley	Carolyn		FTS058
5	Curley	Carolyn		MCL021
6	Currie	Cris M.		RL168
7	Currie	Cathie	The Washington Wilderness Coalition	STR0226
8	Curtiss	Mike		STR0227
9	Cushing	Colbert E.		STR0228
10	Cushing	Jacqueline A.		STR0229
11	Cynthia	Weeks		RL007
12	Dagnon	Thomas		FTS059
13	Dal Porto	Danna		RL221
14	Darnell	Jasmine		STR0230
15	Davenport	Les		RL360
16	Davis	Chase		RL299
17	Davis	Debra		RL326
18	Davis	Chase		RTS026
19	Davis	Delcie		STR0231
20	Davis	Melissa Dawn		STR0232
21	Davis	Michelle M.		STR0233
22	Davis	O.J.		STR0234
23	Dawson	Jack		RLR002
24	Dawson	Murrel	Save the Reach Coalition	RLR003
25	Dawson	Murrel V.		STR0235
26	Dawson	Victoria		STR0236
27	Dayton	Lauri		FTS060
28	de Beath	Elizabeth	Richland Federal Women's Club	STR0237
29	De Witt	Timothy		RL125
30	de Yonge	John	Washington Environmental Council	RLR001
31	Dean	Michael		RTP007
32	Dean	Laurene		STR0238
33	deBruler	Greg		RTP013
34	Dec	Mike		STR0239
35	Decker	John		STR0240
36	Decker	Sue		STR0241
37	Deeney	Jim	Tri-State Sleetheders (hunting)	STR0242
38	Deery	Ruth	Willapa Hills Audubon Society	RL452
39	Degerman	Eric		STR0243
40	Degerrman	Traci		STR0244
41	Dehmer	Lee J.		STR0245
42	Dehmer	Peggy J.		STR0246
43	Dennison	Joyce		RL235
44	Derdes	David		MCL034
45	Devers	Guy		STR0247
46	DeWolfe	Harriet		STR0248
47	DeWolfe	Russ		STR0249
48	Didzevekis	Paul		STR0250
49	Dietert	Judy		STR0251
50	Dietert	Scott		STR0252

	Last Name	First Name	Organization Name	ContactID
1	Dillman	Jim		RTR023
2	Ditchfield	Elsie		STR0253
3	Ditchfield	W. R.		STR0254
4	Divine	Kay		STR0255
5	Dix	Kelly		STR0256
6	Dobbyn	Nora		RL082
7	Doescher	Rebecca		STR0257
8	Donley	John		STR0258
9	Doolittle	Bud A.		STR0259
10	Doremus	Llyn		STR0260
11	Doriss	Carol W.		STR0261
12	Doriss	Clinton P.		STR0262
13	Dory	Dorothy B.		STR0263
14	Doughty	John A.		STR0264
15	Dovlan	David		STR0265
16	Dowabauer	Roger		STR0266
17	Dozer	Bill		STR0267
18	Dozer	Lila		STR0268
19	Drageaux	Barbara	Women's International League for Peace and Freedom	RLP001
20	Drageaux	Barbara	Women's International League for Peace and Freedom	RTP009
21	Draham	Donald		STR0269
22	Drew	Laura		STR0270
23	Drew	Laura		STR0271
24	Drussel	Marianne		STR0272
25	Dudick	Carol		STR0273
26	Dukelow	James S.		STR0274
27	Dukes	Lorraine		RL213
28	Dunn	Virgil L.		STR0275
29	Dunning	Dirk		RTP014
30	Durant	Betty	Member of the Sierra Club	RL132
31	Dursch	Ann		RL444
32	Duslar	Sheri		STR0276
33	Dwyer	Jim		RE013
34	Eadie	LeRoy		RTS013
35	Eager	Francis		STR0277
36	Eason	George		STR0278
37	Ebaugh	Janet		STR0279
38	Edgar	Nancy		STR0280
39	Edson	John P.		STR0281
40	Edunastor	Barbara		STR0282
41	Edwards	Lenore		RL030
42	Ehlers	Kathryn		RL130
43	Eiholzer	Cheryl		RL340
44	Eiholzer	Cheryl		STR0283
45	Eiholzer	Sean		STR0284
46	Eklund	James		FTS061
47	Ellen	Gary		STR0285
48	Elliot	Zylda	Richland Federal Women's Club	STR0286
49	Elliott	Travis		RL156
50	Elliott	Anna Marie		STR0287

	Last Name	First Name	Organization Name	ContactID
1	Ellis	Deborah		STR0288
2	Ellis	John C.		STR0289
3	Ellis	Martha		STR0290
4	Ellis	Steven R.	330 Families of the Whidbey Audubon Society	STR0291
5	Elshoff	Alice M.		STR0292
6	Elshoff	Cal		STR0293
7	Ely	Jennifer		STR0294
8	Engel-Cox	Glen		STR0295
9	Engel-Cox	Jill		STR0296
10	Engle	Helen	The National Audubon Society	STR0297
11	Engle	Stan	The Mountaineer	STR0298
12	Ennor	Howard R.		STR0299
13	Ennor	Lucile H.		STR0300
14	Ennor	Susan K.		STR0301
15	Entzel	Ken	Wilbur Ellis	RL350
16	Erickson	Shelly		FTS062
17	Erickson	Andrew		STR0302
18	Erickson	Irene		STR0303
19	Esleidsen	G. Bruce		FTS063
20	Esparza	Arnold		FTS064
21	Esparza	Richard		FTS065
22	Esparza	Carolyn		FTS066
23	Esparza	Cipriano		FTS067
24	Esparza	Cipriano Jr.		FTS068
25	Esser	Judy		FTS069
26	Esser	Judy		MCL008
27	Estes	Roberta		STR0304
28	Eubanks	Jeremy		STR0002
29	Evans	James W.		STR0305
30	Evans	R. Douglas		STR0306
31	Everly	Jason		RL342
32	Fabela	Joel		FTS070
33	Fabela	Pablo		FTS071
34	Fabela	Joel		MCL049
35	Faletti	Duane		RL170
36	Faletti	Sharon		RL171
37	Faletti	Duane		RTR022
38	Fant	Karen		RL223
39	Farris	Calvin		STR0307
40	Farris	Joy		STR0308
41	Fay	Joy		STR0309
42	Fay	Robert		STR0310
43	Fecht	Barbara		STR0311
44	Fecht	Betty		STR0312
45	Fecht	John		STR0313
46	Fecht	Judy		STR0314
47	Fecht	Karl		STR0315
48	Fed	Josh		STR0316
49	Feddeler	William	Vancouver Audubon Society	RL324
50	Feeney	Kendall		RL281

	Last Name	First Name	Organization Name	ContactID
1	Felch	Nancy		STR0317
2	Fentiman	Robert		FTS072
3	Fentiman	Robert		MCL024
4	Ferber	Robert		RL077
5	Fergus	Alice C.		STR0318
6	Ferguson	Sharon		STR0319
7	Fernald	Jeffery		STR0320
8	Ferrera	John		STR0321
9	Fiene	Betty L.		STR0322
10	Finn	Daniel		RL339
11	Finn	John		RL344
12	Fischer	Gloria		RL353
13	Fischer	Avid W.		STR0323
14	Fischer	Lawrence		STR0324
15	Fischer	Ruth		STR0325
16	Fisk	Charles	Spokane Canoe and Kayak Club	RL296
17	Fisk	Charles	Spokane Canoe and Kayak Club	RTS002
18	Flicker	John	National Audubon Society	RL282
19	Flores	Guadalupe		RL331
20	Flores	Lupito	Save the Reach (campaign that is part of the Lower Columbia River Audubon Society)	RTP006
21	Flores	Lupito	Save the Reach (a committee of the Lower Columbia Basin Audubon Society)	RTR002
22	Flores	Lupito	Save the Reach	RTS024
23	Flores-Pacha	Michele		RL226
24	Fluten	Sara		STR0326
25	Fluten	Tim		STR0327
26	Foley	Rella		RL036
27	Follett	Robert K.		STR0328
28	Forsythe	Kay		RL228
29	Foster	Joseph H.		STR0329
30	Foust	J.C.		STR0330
31	Fox	Daniel		FTS073
32	Fox	James		FTS074
33	Fox	Jerome		FTS075
34	Fox	Julie		FTS076
35	Fox	Patrick		FTS077
36	Fox	George		STR0331
37	Fox	Marlene		STR0332
38	France	Janet		RL083
39	Frankenfield	Floyd		STR0333
40	Frazer	Mark K.	Garden Shadows and Design	STR0334
41	Frazier	Bruce		RTP001
42	Frazzini	Jeana		RE001
43	Frederick	Greg		STR0335
44	Freeborn	Duane		RL334
45	Freeman	Scott		STR0336
46	Freiberger	Jana		RL101
47	French	Catherine A.		RL187
48	Freytag	Mildred		STR0337

	Last Name	First Name	Organization Name	ContactID
1	Frobe	Russell		RL058
2	Fruehling	Violet		STR0338
3	Fruehling	William		STR0339
4	Fryer	Jeff		RTP005
5	Gadbois	Larry		STR0340
6	Gafford	J.B.		STR0341
7	Gagmon	Gary G.		STR0342
8	Gagmon	Laura M.		STR0343
9	Gaines	Faith		STR0344
10	Gaither	Michelle		RL014
11	Galbreath	Donald		RL352
12	Galbreath	Donald A.	The Ephrata Sportsman's Association	STR0345
13	Galbreath	Donald S.		STR0346
14	Galbreath	Evan D.		STR0347
15	Galloway	Heather		STR0348
16	Gamber	Barbara		STR0349
17	Gamber	Herbert		STR0350
18	Gammon	Kathy		FTS078
19	Gammon	Kathy		MCL050
20	Gangle	Robert		FTS079
21	Gangle	Robert		MCL040
22	Gano	Sue		STR0351
23	Gardner	Jacqueline	Supporter of The Nature Conservancy	RE002
24	Gardner Milne	Lorree	In support of the Sierra Club	RL231
25	Garland	Debbie		STR0352
26	Garrard	Mary		STR0353
27	Geist	David		STR0354
28	George	Steven		FTS080
29	Gephart	Roy	Pacific Northwest National Laboratory	RL201
30	Gerhard	Robert A.		STR0355
31	Gidner	Grita L.		STR0356
32	Gidner	Richard V.		STR0357
33	Giese	Lyons H.		STR0358
34	Giese	Ruth A.		STR0359
35	Gilbert	Jennie	Richland Federal Women's Club	STR0360
36	Gilligan	Kathleen		STR0361
37	Gilmur	Thelma T.		RL173
38	Gilson	Barbara		RL377
39	Gleason	Chris A.		STR0362
40	Gleason	Daniel S.		STR0363
41	Goheen	Marion		STR0364
42	Goheen	Milton		STR0365
43	Goraski	Lloyd		FTS081
44	Gordon	Jessie		STR0366
45	Gordon	Jessie	J&R Videos	STR0367
46	Gordon	Ray		STR0368
47	Gordon	Ray	J&R Videos	STR0369
48	Gore	Bryan		STR0370
49	Gore	Evelyn	Spencer-Kinney, Inc.	STR0371
50	Graedel	Irwin W.		RL240

	Last Name	First Name	Organization Name	ContactID
1	Grando	Carl		STR0372
2	Grando	Cliff		STR0373
3	Grando	Diana		STR0374
4	Grant	Sharm	Partners in Healing	STR0375
5	Grant	Sharon L.		STR0376
6	Grant County Fire District 8			FTS082
7				
8	Green	Janet		FTS083
9	Green	Janet		MCL045
10	Greer	Lawrence		RL368
11	Greger	George E.		STR0377
12	Greger	Greg	Mid Columbia Archaeological Society	STR0378
13	Greger	Margaret		STR0379
14	Griffin	Enid		RL089
15	Griswold	Beverly		STR0380
16	Griswold	Darwin		STR0381
17	Groner	Shirley		STR0382
18	Guenther	J.E.		RL184
19	Guenther	J.E.		STR0383
20	Guenther	Jean E.		STR0384
21	Gulley	Dale		STR0385
22	Gunn	Fannie		STR0386
23	Gunn	Glenn		STR0387
24	Gustavson	Mary Purton		STR0388
25	Hafer	Rae		RTS015
26	Hagan	Martha H.		STR0389
27	Hageman	Al		RL120
28	Hageman	Al		RTR018
29	Hageman	A.K.		STR0390
30	Hageman	Ann K.		STR0391
31	Haggard	Bob		STR0392
32	Haggard	Rhonda		STR0393
33	Haggin	Bart		RTS008
34	Hagood	Denise		STR0394
35	Hahn	Katie		STR0395
36	Hahn	Keely		STR0396
37	Hahn	Kyle		STR0397
38	Hales	Burke		STR0398
39	Hales	Jeremy M.		STR0399
40	Hales	Kathryn L.		STR0400
41	Hales	Kelly		STR0401
42	Hall	Stacie		RL383
43	Hall	John R.		STR0402
44	Hall	Velma		STR0403
45	Halloway	Jon		STR0404
46	Hamilton	June	The Yakima Valley Audubon Society	STR0405
47	Hamilton	June W.		STR0406
48	Hamilton	Wayne		STR0407
49	Hammon	Nathaniel		RTS006
50	Hammond	Blaine		RL219

	Last Name	First Name	Organization Name	ContactID
1	Hampson	Larry		RE027
2	Hancock	Robert		STR0408
3	Handy	Jessica		STR0409
4	Haney	Ken		FTS084
5	Hanners	Al		RL063
6	Hansen	Veral		RL336
7	Hanson	Gordon L.		STR0410
8	Hanson	Jerry		STR0411
9	Hanson	Michele		STR0412
10	Harbinson	David		STR0413
11	Harbinson	E. Neil		STR0414
12	Harbinson	Mary		STR0415
13	Hardy	Frank W.		STR0416
14	Hardy	Janet		STR0417
15	Harker	Bruce		FTS085
16	Harker	Sam		FTS086
17	Harman	Mary Ann		STR0418
18	Harmon	James		FTS087
19	Harmon	James		RTM013
20	Harmon	H.K.		STR0419
21	Harmon	Roy		STR0420
22	Harmon	Sonja P.		STR0421
23	Harrington	Kathy		STR0422
24	Harris	Carolyn		FTS088
25	Harris	Leona		FTS089
26	Harris	Howard		RL238
27	Hart	Karen		RL218
28	Hartley	Katherine		STR0423
29	Hartman	Mary B.		STR0424
30	Hartson	Ella		STR0425
31	Hartwig	David J.		STR0426
32	Harty	David R.		STR0427
33	Harty	Deana		STR0428
34	Hartz	Virginia G.		STR0429
35	Hartzog	Herman		FTS090
36	Harville	John		RL069
37	Harville	Barbara		STR0430
38	Hassig	Nancy Lee		STR0431
39	Hassing	Leona		STR0432
40	Hastay	Helen		RL116
41	Hatch	Blake		FTS091
42	Hatch	Dan		FTS092
43	Hatch	Mike		FTS093
44	Hathaway	Arthur		RL327
45	Hatton	Robert	Supporter of The Nature Conservancy	RE004
46	Hawatt	D.B.		FTS094
47	Hayes	Heidi		STR0433
48	Hayner	George O.		STR0434
49	Heacock	Harold		RTS003
50	Heasler	Patricia		STR0435

	Last Name	First Name	Organization Name	ContactID
1	Heasler	Patricia	P.S. and Associates	STR0436
2	Hecht	Sam		STR0437
3	Hedge	David		RL053
4	Hedge	Jeff	Spokane Chapter, Physicians for Social Responsibility	RTS022
5	Heggen	Richard		RL249
6	Heidenreich	James		RL056
7	Heiken	Douglas O.		STR0438
8	Heintz	Roger		FTS095
9	Heller	Meta	Save the Reach Coalition	RL183
10	Hembree	Christy		STR0439
11	Henderson	Leonard		FTS096
12	Henderson	Richard G.		STR0440
13	Hennings	Marian		RL250
14	Hennings	Marian		STR0441
15	Hermann	Dan		STR0442
16	Hess	Nancy J.		STR0443
17	Hicks	Keith R.		STR0444
18	Hicks	Lidabeth		STR0445
19	Higbee	Mark D.		STR0446
20	Hill	Michael		RL012
21	Hill	Donald J.		STR0447
22	Hill	Linda		STR0448
23	Hill	Saundra L.		STR0449
24	Hill	Virginia R.		STR0450
25	Hilliard	Grace		STR0451
26	Hilliker	Alan	Saddle Mountain Bible Church	RL298
27	Hinman	Karen	Washington Native Plant Society	RL103
28	Hinman	Holly	Supporter of Save the Reach Coalition	RL192
29	Hinman	Chester A.		STR0452
30	Hinman	Karen A.		STR0453
31	Hirabayashi	Joanne		RL367
32	Hirai	Charlie		FTS097
33	Hirai	Harvey		FTS098
34	Hirai	Rio		FTS099
35	Hirai	Charlie		MCL041
36	Hirai	Allen	Wilbur Ellis	RL335
37	Hobbs	Jeene M.		STR0454
38	Hodges	Bennie		STR0455
39	Hodges	Kathryn S.		STR0456
40	Hoey	Ed		STR0457
41	Hoey	Carolyn		STR0458
42	Hoffman	Virginia		STR0459
43	Hofstetter	Winona		STR0460
44	Hoge	Phil		RL220
45	Hogue	Harold F.		STR0461
46	Holford	Diana Joan		STR0462
47	Hollister	Buell		RTS011
48	Holloway	David		RL071
49	Holloway	Mozelle		RL286
50	Holloway	David T.		RL287

	Last Name	First Name	Organization Name	ContactID
1	Holmberg	Bruce		STR0463
2	Holt	James		FTS100
3	Holt	Noy		FTS101
4	Holt	Kenneth W.	Department of Human & Health Services	RL166
5	Holt	Joe		STR0464
6	Honaker	Dot		STR0465
7	Hood	Edwin		FTS102
8	Hood	Mark		STR0466
9	Hope	Steve		STR0467
10	Hornung	Jack		RL108
11	Hosler	Alan	The Inter-Mountain Alpine Club of Richland, Washington	STR0468
12	Hottell	Susan		STR0469
13	Houff	Patty		RL312
14	Houff	Patty		RLS005
15	Hough	Edward J.		STR0470
16	Hough	Marge E.		STR0471
17	Houghton	Frank		RL145
18	Houle	Ray		STR0472
19	House	Ann		STR0473
20	House	Howard		STR0474
21	Howard	Chris	Blue Mountain Audubon Society	STR0475
22	Howard	William A.		STR0476
23	Howell	Janelle		STR0477
24	Howerton	B.J.		STR0478
25	Hoza	Mark		STR0479
26	Hubbard	Kent C.		STR0480
27	Hubele	Kurt		STR0481
28	Hubele	Laura		STR0482
29	Huber	Joy	Rivers Council of Washington	STR0483
30	Huckaby	Alisa		RL154
31	Huckaby	Jim		STR0484
32	Huckaby	Jimmy		STR0485
33	Huckaby	Sammy		STR0486
34	Huff	Christy		STR0487
35	Hulbert	James	James H. Hulbert and Associates	RL087
36	Hulsizer	Wade		FTS103
37	Hunt	Alan		STR0488
38	Hunt	Charles	Morrison Construction Services, Inc.	STR0489
39	Hunt	Diane		STR0490
40	Hunt	Sue		STR0491
41	Hunt	Tim		STR0492
42	Hurning	Jack		STR0493
43	Hustell	Holly A.		STR0494
44	Hustell	Holly A.	Central Basin Audubon Society	STR0495
45	Hutton	Laurie		STR0496
46	Hwang	J. Gilbert		STR0497
47	Hyslop	Mattie		RL197
48	Ingrahm	Ann		RL182
49	Ingram	Jim		STR0498
50	Ingram	Phyllis		STR0499

	Last Name	First Name	Organization Name	ContactID
1	Inman	Rebecca J.	State of Washington Department of Ecology	RL202
2	Isack	Gerald		FTS104
3	J & S Cattle Co.			FTS105
4	Jackson	Jan R.		STR0500
5	Jackson	Lawrence R.		STR0501
6	Jacobsen	Gerald		STR0502
7	Jacobsen	Jean		STR0503
8	Jacobson	Barry	Environment Information Network	RTR003
9	Jacobson	Baruch S.		STR0504
10	Jacohy	Jean		STR0505
11	Jageman	Earl		STR0506
12	James	Linda		RL239
13	Jeffries	Eileen		RL216
14	Jenkin	Richard		FTS106
15	Jenkins	Helene		RL169
16	Jenne	Tim		FTS107
17	Jennings	Beverly B.		STR0507
18	Jennings	Hugh A.		STR0508
19	Jensen	Don	Save the Reach Coalition	RL009
20	Jensen	Gary		STR0509
21	Jensen	Gene		STR0510
22	Jensen	Leslie		STR0511
23	Jim	Russell	Confederated Tribes of the Yakama Indian Nation	RL097
24	Jimenez	Genaro		FTS108
25	Jimenez	Jaime		FTS109
26	Jimenez	Jorge		FTS110
27	Jimenez	Juan		FTS111
28	Jimenez	Joan		MCL012
29	Johndro-Collins	Ann		STR0512
30	Johns	Bill		RL345
31	Johns	Bill		RTS005
32	Johnsen	Laurinda		RL029
33	Johnson	Irene		FTS112
34	Johnson	Marion		FTS113
35	Johnson	Robert		RL126
36	Johnson	Ben		STR0513
37	Johnson	Brian		STR0514
38	Johnson	E.T.		STR0515
39	Johnson	Linda G.		STR0516
40	Johnson	Patricia B.		STR0517
41	Johnson	Rachel		STR0518
42	Johnson	Robert		STR0519
43	Johnson	Sam		STR0520
44	Johnson	W.M.T.		STR0521
45	Johnston	Elmer		FTS114
46	Johnston	James		RE005
47	Johnston	Lois		RL163
48	Johnston	Connie		RL193
49	Jones	Dave		STR0522
50	Jones	Erin C.		STR0523

	Last Name	First Name	Organization Name	ContactID
1	Jones	Helen A.		STR0524
2	Jones	K.C.		STR0525
3	Jones	Loring M.	Palouse Audubon Society	STR0526
4	Jones	Mindy		STR0527
5	Jones	Rene L.		STR0528
6	Jones	Vicki		STR0529
7	Jordan	Ella J.		STR0530
8	Jordan	Joe W.		STR0531
9	Jordan	Martha		STR0532
10	Joseph	Mary Lou		RL210
11	Kaczynski	Eli		STR0533
12	Kaelfer	Pat		STR0534
13	Kaiser	Jeff		RL094
14	Kauffman	Jennifer		RE007
15	Kearns	Lynn		STR0535
16	Kearns	Paul		STR0536
17	Keas	Jeff		STR0537
18	Keas	Shandra		STR0538
19	Keeley	Martin		FTS115
20	Keeley	Patrick		FTS116
21	Keeley	Russell		FTS117
22	Keeley	Ruth		FTS118
23	Keene	James R.		STR0539
24	Kellogg	Lloyd		RL247
25	Kelly	Charles R.		STR0540
26	Kelly	David S.		STR0541
27	Kelly	Maia		STR0542
28	Kelly	Maia	The Yakima Valley Audubon Society	STR0543
29	Kelly	Marjarie Page		STR0544
30	Kelly	Vincent P.		STR0545
31	Kelpman	Beula		RL121
32	Kent	Donald		RL008
33	Kent	Kathleen A.		STR0546
34	Kerwick	Dennis P.		STR0547
35	Kerwick	Norine V.		STR0548
36	Ketcham	Paul	Audubon Society of Portland	RTP008
37	Kettrule	Catherine		RL164
38	Kikwood	Helina		STR0549
39	Kilbury	Charles		FTS119
40	Kilian	Douglas C.		STR0550
41	Kimball	Janet		RL188
42	King	Susan		STR0551
43	Kinney	Dan		STR0552
44	Kinney	Eileen		STR0553
45	Kirk	Duncan P.		STR0554
46	Kirk	Duncan Pryce		STR0555
47	Kirkendall	Jane R.		STR0556
48	Kirkpatrick	Glen		RL104
49	Kitan	Tan	Ray's Grocery Fishing and Tackle	STR0557
50	Klein	Charmagne		STR0558

	Last Name	First Name	Organization Name	ContactID
1	Klein	Robert		STR0559
2	Klein	Tom		STR0560
3	Kleindl	William		STR0561
4	Kleine	Harry	Partners in Healing	STR0562
5	Klippert	Sandra		STR0563
6	Klundt	Tim		STR0564
7	Knapp	Suzanne M.		STR0565
8	Knight	Paige	Hanford Watch	RTP003
9	Knight	Craig		STR0566
10	Knight	RaNae		STR0567
11	Knoke	Don		STR0568
12	Knoke	Don F.	Locust Grove Farm, Inc.	STR0569
13	Knoke	Ruth		STR0570
14	Knoke	Ruth G.	Locust Grove Farm, Inc.	STR0571
15	Knoke	Terri		STR0572
16	Knutson	Gordon Kenneth		STR0573
17	Knutson	Kathryn		STR0574
18	Kochendorfer	Irene		RL180
19	Kofoed	Paula		STR0575
20	Kofoed	Raymond		STR0576
21	Kohler	Carloyn J.		STR0577
22	Koll	Arton J.		STR0578
23	Kongsgaard	Martha		STR0579
24	Koselke	Dennis	Jet Boat Adventure	STR0580
25	Koselke	Dennis		STR0581
26	Koselke	Toni		STR0582
27	Koselke	Toni	Jet Boat Adventure	STR0583
28	Kovalchick	Charles		STR0584
29	Kovalchick	Maxine		STR0585
30	Kowrach	Casey		STR0586
31	Krasicek	J.E.		STR0587
32	Kreid	Dennis	Columbia River Conservation League	RLR004
33	Kreid	Dennis		RTR024
34	Kreid	Dennis		STR0588
35	Kreid	Susan		STR0589
36	Krekel	Teresa		STR0590
37	Kreswetter	Jean		STR0591
38	Krick	Julia W.		STR0592
39	Kriete	Marge		STR0593
40	Krull	Robin		STR0594
41	Krupa	Lynn		RL315
42	Krupa	Molly		RL378
43	Krus	Jennifer		STR0595
44	Krus	Koren Ko		STR0596
45	Krus	Rob		STR0597
46	Kuehl	Viviann		RL059
47	Kugi	Elizabeth	Our Lady of the Snows Catholic Church	RL379
48	Kuhn	William		RE008
49	Kuhn	Bill		RTR009

	Last Name	First Name	Organization Name	ContactID
1	Kuhn	Ernest R.		STR0598
2	Kuhn	Guadalupe G.		STR0599
3	Kuick	Stan		STR0600
4	Kuklinski	Ken		STR0601
5	Kuklinski	Sarah		STR0602
6	Kuklinski	Teresa		STR0603
7	Kunkel	Norman		RL018
8	Kuntz	A. J.	Skagit Audubon Society	STR0604
9	Kuusinen	Tapio		STR0605
10	Lacey	Steve		STR0606
11	Laddlear	Anna B.		STR0607
12	Ladenberger	Nancy		STR0608
13	Lafonte	Anne		RL064
14	LaFramboise	Nancy		STR0609
15	LaGaser	Bruce J.		STR0610
16	Lagerberg	Russell		RL055
17	Lamar	Lewis H.		STR0611
18	Lamb	Edwin D.		STR0612
19	Lamb	Phyllis J.		STR0613
20	Lamb, Jr.	Edwin		STR0614
21	Lambier	Darwin		STR0615
22	Lambier	Lois M.		STR0616
23	LaMear	Anna B.		STR0617
24	Landeen	Dan		RTR019
25	Landon	Buford		STR0618
26	Landon	Isla		STR0619
27	Langer	Ann		RL262
28	Langstaff	Lu		STR0620
29	Laourie	Colleen		RL362
30	Larsen	Thomas Jr.		FTS120
31	Larsen	Pam		RL026
32	Larsen	Lewis E.		STR0621
33	Larsen	Sally E.	Morrison Construction Services, Inc.	STR0622
34	Lathrop	Elizabeth		RL175
35	Lauri	Mr.	Vice-Chair	RTM009
36	Lavender	Jay		STR0623
37	Lavender	Kathy		STR0624
38	Lavender	Teresa		STR0625
39	Lawrence	Jacobson		RL006
40	Lawrence	Craig		STR0626
41	Lazelle	Keith		RL038
42	Leanderson	Peggy L.		STR0627
43	Leaumont	Rick	Lower Columbia Basin Audubon Society	RL204
44	Leaumont	Rick	Lower Columbia Basin Audubon Society	RTR027
45	Leaumont	Richard J.		STR0628
46	Leaumont	Tralice B.		STR0629
47	Lechelt	Irene		STR0630
48	Lechett	Irene J.		STR0631
49	LeCompte	Cathy		STR0632
50	Ledford	Alva John		FTS121

	Last Name	First Name	Organization Name	ContactID
1	Ledford	Debra		FTS122
2	Ledgerwood	Glen		STR0633
3	Ledgerwood	Lynn M.		STR0634
4	Ledgerwood	Nerissa		STR0635
5	Leeland	Glenn		RTM015
6	Leggitt	Suzanne		STR0636
7	Leigh	Julie		STR0637
8	Leitz	Richard		FTS123
9	Leitz	Liz		RTM020
10	Leitz	Richard	Port of Mattawa	RTM004
11	Leland	Glenn		FTS124
12	Leland	Glen		MCL007
13	Lemargie	Paul		STR0638
14	Lennox	Chuck	Seattle Audubon Society	RL222
15	Levkovik	Thea	Washington Wildlife Federation	STR0639
16	Levque	Peter V.	Executive Board of Madrae Audubon Society	STR0640
17	Lewinsohn	Charles		RL288
18	Lewinsohn	Jennifer		RL439
19	Liebetau	Albert M.		STR0641
20	Liebetau	Suzanne F.		STR0642
21	Lieuallen	Ryan		RL300
22	Lilga	Mary		STR0643
23	Lilga	Mike		STR0644
24	Lijek	Stephen		RL254
25	Lilga	Michael A.		RL206
26	Lilga	Michael		RL314
27	Lilga	Mike		RTR012
28	Lilga	Mike		RTR012
29	Lindholdt	Paul	Sierra Club Upper Columbia/Eastern Environmental	RE012
30	Lindholdt	Paul	Sierra Club Upper Columbia/Eastern Environmental	RL308
31	Lindholdt	Paul	Sierra Club Upper Columbia/Eastern Environmental	RLS001
32	Lindholdt	Pauline	Upper Columbia River Group of the Sierra Club and the Eastern Environmental Student Group at Eastern	RTS017
33	Lindsey	Kevin A.		STR0645
34	Lindstrom	Hal	Kittitas Audubon Society	RL448
35	Linholdt	Paul	Upper Columbia River Group, Sierra Club	STR0646
36	Link	Steven		RTR020
37	Lipshetz	Amanda		STR0647
38	Little	Debra		STR0648
39	Little	Jon		STR0649
40	Littleton	Kevin P.		STR0650
41	Litzenberger	Dale M.		STR0651
42	Litzenberger	R.L.		STR0652
43	Livesque	Cheryl		STR0653
44	Livingston	Jerry		STR0654
45	Locke	Richard C.		STR0655
46	Lockwood	Walter		RL067
47	Loekel	Bill		STR0656
48	Loena	Alex		MCL042

	Last Name	First Name	Organization Name	ContactID
1	Loera	Alex		FTS125
2	Loera	J. Manuel		FTS126
3	Loera	Jaime		FTS127
4	Loera	Javier		FTS128
5	Loew	Merry A.		STR0657
6	Loewenstein	Eileen		STR0658
7	Loewenstein	Howard		STR0659
8	Lofstrom	Claudia		STR0660
9	Lofstrom	Richard		STR0661
10	Loftus	Suzanne Marie		STR0662
11	Logman	Lynn		STR0663
12	Logman	Paul		STR0664
13	Long	John	Supporter of Save the Reach Coalition	RL068
14	Long	Meredith		RL136
15	Long	John W.		STR0665
16	Long	John W.		STR0666
17	Long	Sharon E.		STR0667
18	Long	Sharon E.		STR0668
19	Longenecker	Julie		STR0669
20	Lonn	Robert	NW Council of Governments and Associates	RL248
21	Lopez	Adam		FTS129
22	Love	Carole		FTS130
23	Love	Carole		MCL043
24	Lowe	Robyn		RL157
25	Lowe	John		STR0670
26	Lowell	Gordon		FTS131
27	Lowell	Gordon		RL437
28	Lucas	Joye	Central Basin Audubon Society	STR0671
29	Lumper	Amity Jo		RL242
30	Lyll	Charles		FTS132
31	Lyll	Frank		FTS133
32	Lyll	Thea		FTS134
33	Lykman	Christy		STR0672
34	Lykman	Greg		STR0673
35	Lyon	Judith A.		STR0674
36	Lyon	Matthew		STR0675
37	Lyons	Bill	The Oregon Natural Desert Association	STR0676
38	Madden	Erin		RL211
39	Mager	Bonnie	Washington Environmental Council	RTS020
40	Mahaney	Janice		FTS135
41	Mahaney	John		FTS136
42	Mahaney	Pat		FTS137
43	Mahaney	Wayne		FTS138
44	Mahaney	Janice		MCL044
45	Mann	Michael		STR0677
46	Manship	Carl D.		STR0678
47	Manship	Tammi J.		STR0679
48	Marks	Elliott	The Nature Conservancy of Washington	RL359
49	Marley	Michael W.		STR0680
50	Marsh	Charles		STR0681

	Last Name	First Name	Organization Name	ContactID
1	Marsh	Kay		STR0682
2	Marsh	Margaret		STR0683
3	Marstie	Dawn		STR0684
4	Martin	William	Tri-City Industrial Development Council	RL322
5	Martin	Anne		STR0685
6	Martin	James A.		STR0686
7	Martinez	Pablo		FTS139
8	Martinez	Simona		FTS140
9	Martinez	Michael J.	S. Martinez Livestock Inc.	RL285
10	Martinez	Mike		RTM021
11	Mason	Heather J.		STR0687
12	Masson	James	In Support of The Nature Conservancy	RL016
13	Masters	Kerry		RL198
14	Mather	Rex		RL372
15	Matkowski	Mike		STR0688
16	Mattis	Lucille M.		STR0689
17	Mattison	Leona		STR0690
18	Mauch	John J.	Micro Mole Scientific	STR0691
19	Maughan	Dan		FTS141
20	Maughan	Gary		FTS142
21	Maughan	Joseph		FTS143
22	Maughan	Nathan		FTS144
23	Maughan	Rebecca		FTS145
24	Maughan	Nathan		MCL001
25	Maughan	Rebecca		RL384
26	Mauney	E. Laurel		RL057
27	Maxwell	J. Alex		RL046
28	Maxwell	Cathy		RL276
29	Mayer	Judith		RL259
30	McAboy	Kell		RL346
31	McAlpine	George A.		STR0692
32	McCarthy	Terri		STR0693
33	McCleary	Jack A.		STR0694
34	McClelland	Don		STR0695
35	McCollum	Cheryl		STR0696
36	McConnaughey	Jay		STR0697
37	McCormick	Hedwig		FTS146
38	McCracken	Jim		STR0698
39	McCracken	Portia		STR0699
40	McCrary	Ken		STR0700
41	McCrary	Susan		STR0701
42	McCrea	Eric		STR0702
43	McDonald	James		RL039
44	McDonell	Lillian		RL190
45	McFall	J.W.		FTS147
46	McGuire	Philip		FTS148
47	McGuire	Mickey		STR0703
48	McHenry	Doris		RL095
49	McIntosh	John		STR0704
50	McIntosh	Linda		STR0705

	Last Name	First Name	Organization Name	ContactID
1	McKay	Patricia		STR0706
2	McKinney	Mary Ann		STR0707
3	McLain	Margaret		FTS149
4	McLain	Linda		RL080
5	Mclain	John E.		STR0708
6	McLaughlin	Beverly	The Nature Conservancy	RL271
7	McMullen	David	Dept. of the Interior, Fish and Wildlife Service	RL361
8	McMurray	Brenda		STR0709
9	McNeely	Richard		STR0710
10	McQualheim	Beulah M.		STR0711
11	McQualheim	Carl R.		STR0712
12	McQuerry	Maureen		STR0713
13	McRoberts	James		RL032
14	McVeety	Bruce		STR0714
15	McVeety	Irene		STR0715
16	Mease	Mark Edward		STR0716
17	Mecham	J.R.		STR0717
18	Medak	Martha		RL065
19	Medford	Anne E.		STR0718
20	Meloy	Dana A.		STR0719
21	Melvin	Laddie Ray		RL044
22	Menard	Nina		STR0720
23	Mendez	Hector		FTS150
24	Mendez	Hector		MCL046
25	Mendoza	Miguel		FTS151
26	Mercer	Chris		STR0721
27	Meredith	Amanda		STR0722
28	Merkle	Douglas		RE447
29	Merkle	Tammy		RL351
30	Merkle	Douglas		RL447
31	Merrick	Carol J.		STR0723
32	Mertz	Paula D.		STR0724
33	Meyer	Charles		RL261
34	Meyer	Suzy		RL272
35	Meyer	Charles R.		STR0725
36	Middleton	Gary		STR0726
37	Miles	Mr. And Mrs. Joe		RL088
38	Millelstaedt	Robert N.		STR0727
39	Miller	Brian		RE015
40	Miller	Marlene		RL047
41	Miller	John		RL129
42	Miller	William	Wahluke School District Superintendent	RTM006
43	Miller	Alfred		STR0728
44	Miller	Bev		STR0729
45	Miller	Brian		STR0730
46	Miller	Fred		STR0731
47	Miller	Inez		STR0732
48	Miller	James A.		STR0733
49	Miller	Julie		STR0734

	Last Name	First Name	Organization Name	ContactID
1	Miller	Michael		STR0735
2	Millsbaugh	Sandra		STR0736
3	Minor	Dorothy S.		STR0737
4	Minor	James E.		STR0738
5	Minor	James E.		STR0739
6	Mintkeski	Walter		RL215
7	Mitchell	Jane		STR0740
8	Mitchell	Matt		STR0741
9	Mitchell	Mike		STR0742
10	Mitchell	Mildred M.		STR0743
11	Mitchell	Tim		STR0744
12	Mittelstaedt	Robert N.		STR0745
13	Mock	James W.		STR0746
14	Molitor	Emily		FTS152
15	Molitor	John		FTS153
16	Molitor	Mathew		FTS154
17	Molitor	Michael		FTS155
18	Molitor	Patrick		FTS156
19	Molitor	Ray		FTS157
20	Molitor	Seana		FTS158
21	Molitor	Ray		MCL019
22	Monds	Scott		STR0747
23	Monero	Jose		FTS159
24	Moog	Ray		STR0748
25	Moon	Mark W.		STR0749
26	Moon	Sheila		STR0750
27	Moon	Stan		STR0751
28	Moore	Erik William		FTS160
29	Moore	Terry		FTS161
30	Moore	Terry		MCL006
31	Moore	Victor and Roberta		RL002
32	Moore	Elaine		RL085
33	Moore	Victor & Roberta		RLR006
34	Moore	Deborah	Grant County	RTM002
35	Moore	Victor		RTR008
36	Moore	Elaine M.		STR0752
37	Moore	Gary D.	Moore Farms	STR0753
38	Moore	Paul H.		STR0754
39	Moore	Robert Lee		STR0755
40	Moos	Marion		RL358
41	Morales	Ruben		FTS162
42	Morales	Ruben	Agri-Express	MCL020
43	Morgan	Alfred		FTS163
44	Morgan	Donna		FTS164
45	Morgan	Francis		FTS165
46	Morgan	Mike		FTS166
47	Morgan	Mike		MCL003
48	Morgan	Patricia		STR0756

	Last Name	First Name	Organization Name	ContactID
1	Morgan	Thomas		STR0757
2	Morgenthaler	Al		STR0758
3	Morgenthaler	Nancy		STR0759
4	Moroney	Kathleen S.		STR0760
5	Moroney III	John D.		STR0761
6	Morris	Dan		STR0762
7	Morrison	Harvey		RTS009
8	Morton	Carol		RL382
9	Morton	Matt	Grant County Planning Department	RTM001
10	Morton	Shirley M.		STR0763
11	Moss	Kathryn		STR0764
12	Moss	Larry		STR0765
13	Motyka	Kim	Motyka Fish N Post	STR0766
14	Motyka	P.J.	Motyka Fish N Post	STR0767
15	Moy	Lolian		STR0768
16	Moyer	Gary		STR0769
17	Moyer	Sue		STR0770
18	Mucie	Don H.		STR0771
19	Mulderig	Nancy		STR0772
20	Mullen	O. Dennis		STR0773
21	Murchey	Frances		RL113
22	Murphy	Nancy		RE009
23	Murray	Patty	United State Senate	RL440
24	Murray	Christopher		STR0774
25	Murray	Nancy B.		STR0775
26	Muse	Shirley	Blue Mountain Audubon Society	STR0776
27	Mussil	Doris		RE018
28	Myers	David A.	Richland Rod and Gun Club	STR0777
29	Nazarali	Alexander M.		STR0778
30	Nehl	Robb		STR0779
31	Nelson	E.M. Elizabeth		RL158
32	Nelson	Ronald		RL363
33	Nelson	Eric		STR0780
34	Nelson	Lonzy		STR0781
35	Nelson	Susan		STR0782
36	Neuzil			RL148
37	Nevius	Joe		STR0783
38	Nevius	Karen		STR0784
39	New	Barbara		STR0785
40	New	Kenneth		STR0786
41	Newell		Newell Enterprises	STR1170
42	Newhouse	Karon		STR0787
43	Newhouse	Keith		STR0788
44	Newhouse	Theron		STR0789
45	Nicholas	John		STR0790
46	Nicklas	Pamela		STR0791
47	Nicklas	Richard		STR0792
48	Nielsen	Kai		STR0793
49	Nishitani	Louisa		RL269
50	Noland	Dean		STR0794

	Last Name	First Name	Organization Name	ContactID
1	Noland	Dean		STR0795
2	Nonneman	Elaine		RE006
3	Norsen	Evelyn		RL176
4	Norst	Walter	Rivers Council of Washington	STR0796
5	Northrop	Cort		STR0797
6	Norton	Johanna		STR0798
7	Norton	Robert		STR0799
8	Norton	Tom R.	Morrison Construction Services, Inc.	STR0800
9	Norton	Tommy R.		STR0801
10	Nowakowski	Mary	The Nature Conservancy	RL011
11	Nowakowski	Mary		STR0802
12	Nowakowski	R.F.		STR0803
13	Nualaysen	Jean		STR0804
14	O'Brien	Shannon		RL010
15	O'Connell	Claude		RL081
16	Ofsthun	Denise		STR0805
17	Ofsthun	Neil		STR0806
18	Ofsthun	Sharon		STR0807
19	Ofsthun	Todd		STR0808
20	Ohlhausen	Beverly		FTS167
21	Olivares	J. Reyes		FTS168
22	Oliver	Claude L.	Benton County Board of Commisioners	RL290
23	Olivera	Jesus		FTS169
24	Olivera	Jorge		FTS170
25	Olivera	Jesus		MCL010
26	Olson	Alexandra		STR0809
27	Olson	Caprice		STR0810
28	Olson	Gary R.		STR0811
29	Orcutt	Carroll		RL251
30	Ornelas	Manuel		RL301
31	Orner	Gayle A.		STR0812
32	Orniston	Terri		STR0813
33	Orozco	Guadalupe		FTS171
34	Orton	Ora Mae		RL078
35	Osborne	Doris L.	Richland Federal Women's Club	STR0814
36	Ott	Ann C.		STR0815
37	Page	Jeremy		RL263
38	Page	Gregory N.		STR0816
39	Pagliari	Donna		STR0817
40	Pagliari	Jim		STR0818
41	Pagliari	Sheryl		STR0819
42	Palenshus	Douglas		STR0820
43	Pallesen	Marie A.		STR0821
44	Palmer	Bruce		STR0822
45	Paquette	Dan	Wenatchee Valley Fly Fishers	STR0823
46	Parent	Nancy		RL316
47	Parker	Paul		FTS172
48	Parker	John D.		STR0824
49	Parker	Pat		STR0825
50	Parkhurst	Barbara A.		STR0826

	Last Name	First Name	Organization Name	ContactID
1	Parkhurst	Clem W.		STR0827
2	Parkin	Richard	U.S. EPA, Region 10	RL445
3	Patterson	Georgeia L.		STR0828
4	Paul	Lois		STR0829
5	Paul-Brothers	Lois		STR0830
6	Paulson	Dennis		STR0831
7	Pavey	Mike		FTS173
8	Pavish	Tim		RL021
9	Pehrson	Mickey		FTS174
10	Pena	Andrea		FTS175
11	Pena	Rick		FTS176
12	Pengelly	Ian		STR0832
13	Pengelly	Katherine		STR0833
14	Pennell	William T.		STR0834
15	Pensak	Daniel		RL177
16	Peppard	David		RL253
17	Peralez Sandoval	Felipe		FTS177
18	Perdes	David		FTS178
19	Perdue	Carol		STR0835
20	Perdue	Jim		STR0836
21	Perez	Celedonio		FTS179
22	Perez	Javier		FTS180
23	Perez	Sandy		FTS181
24	Perez	Javier		MCL014
25	Perez	Sandy		MCL030
26	Perkins	Gaylord		FTS182
27	Perl	Jack W.		STR0837
28	Perry	Louis		RL050
29	Perry	Jane R.		STR0838
30	Perttula	Timothy K.		STR0839
31	Peters	Rose		RL208
32	Peterson	Ruth		RL146
33	Peterson	Mike	The Lands Council	RL243
34	Peterson	Carl		STR0840
35	Peterson	Chris	Seattle Audubon Society	STR0841
36	Peterson	Jim		STR0842
37	Peterson	Ken		STR0843
38	Peterson	Marjorie Maris		STR0844
39	Peterson	Mike		STR0845
40	Peterson	Robin		STR0846
41	Peterson	Roy S.		STR0847
42	Peterson	Scott W.		STR0848
43	Peterson	Todd		STR0849
44	Peterson	Travis D.		STR0850
45	Petrina	George R.		STR0851
46	Pettyjohn	Leslie		STR0852
47	Pewitt	Kenneth C.		STR0853
48	Peyton	Jeffrey		STR0854
49	Phillips	Marie		STR0003
50	Phillips	Rodney		FTS183

	Last Name	First Name	Organization Name	ContactID
1	Phillips	Rodney		MCL048
2	Phillyis	Marie	Richland Federal Women's Club	STR0855
3	Pickard	Jack	Richland Rod and Gun Club	STR0856
4	Pickelsimer	Gary R.		STR0857
5	Pickelsimer	Wendy E.		STR0858
6	Pickett	Denett		STR0859
7	Pierce	Robert D.		STR0860
8	Pierce	Robert D.		STR0861
9	Piippo	Laurel		STR0862
10	Piippo	T.W.		STR0863
11	Piippo	Vikki A.		STR0864
12	Pippard	James		RL054
13	Plastino	Chandra		STR0865
14	Plastino	Gabriel		STR0866
15	Platt	Emily		RL165
16	Pollet	Gerald	Heart of America Northwest	RL317
17	Pollet	Gerry	Heart of America Northwest	RTS025
18	Pollet	Gerry	Heart of America Northwest	RTS004
19	Poor	Arthur D.		STR0867
20	Poor	Dennis		STR0868
21	Poor	Dora		STR0869
22	Popejoy	Billy		FTS184
23	Poplawsky	Alan R.		RL207
24	Porter	Genna Swan		RL273
25	Potter	Irene		STR0870
26	Potts	Betsy		RL040
27	Powell	Esther		STR0871
28	Powell	Lyman A.		STR0872
29	Powers	Julian		RL270
30	Powers	Julian		RTS023
31	Powley	Frank		STR0873
32	Priddy	Betsy		STR0874
33	Pridey, Jr.	G.R.		STR0875
34	Pringle	Thomas		STR0876
35	Pritchard	Jim		RL131
36	Pritchard	James		RTS001
37	Psyk	Christine		RL224
38	Pumrox	Harwood		STR0877
39	Purcell	Mark		STR0878
40	Putnam	Thomas A.		STR0879
41	Raab	Fred	LIGO Hanford Observatory	RE024
42	Raab	Fred	LIGO Hanford Observatory	RE030
43	Raab	Fred	Laser Interferometer Gravitational-Wave Observatory (LIGO) Hanford	RL446
44	Raburn	Ron	City of Richland	RL349
45	Rackley	Bobette		FTS185
46	Rackley	Mike		FTS186
47	Rackley	Sam Jr.		FTS187
48	Rackley	Sam Sr.		FTS188
49	Rackley	William		FTS189

	Last Name	First Name	Organization Name	ContactID
1	Rackley	Mike		MCL039
2	Ragland	Charles		FTS190
3	Raherts	Carol B.	Richland Federated Woman's Club of the General Federation of Woman's Clubs, International	STR0880
4	Raklios	Larry		STR0881
5	Rale	Fred W.	Idaho Conservation League	STR0882
6	Ramage	Kathleen		RL090
7	Ramas	Joyce Gale		STR0883
8	Ramirez	Felix		FTS191
9	Ramirez	Lisa	The Lands Council	RTS019
10	Ramos	Al		STR0884
11	Ramsey	Georgia H.		STR0885
12	Ramsey	Robert W.		STR0886
13	Randolph	Betty		FTS192
14	Randolph	Howard		FTS193
15	Raney	Lon E.		STR0887
16	Ransel	Katherine P.	American Rivers	RL179
17	Ransel	Katherine	American Rivers	RTP004
18	Rasmussen	Robert		RL114
19	Rasmusson	Mary		STR0888
20	Ratisseau	E.		RL280
21	Rausch	Becky		STR0889
22	Ray	Cindy		STR0890
23	Ray	Tim		STR0891
24	Reake	Mark		FTS194
25	Ream	Marilyn		RE010
26	Redfern	Susan		STR0892
27	Redman	Bill	Steelhead Committee, Federation of Fly Fishers	RL209
28	Reed	Angela		STR0893
29	Reed	Scott		STR0894
30	Reep	Charlotte		RL135
31	Reeves	Merilyn B.	Hanford Advisory Board	RL293
32	Reitsma	Paul		STR0895
33	Reynolds	Edward		RE020
34	Rhodes	Richard		STR0896
35	Rhymer	Bernice	Richland Federal Women's Club	STR0897
36	Rhyneer	Bernice		STR0898
37	Rhyneer	Sam		STR0899
38	Rich	Metty C.		STR0900
39	Richards	William		FTS195
40	Richardson	Steve		STR0901
41	Rickard	Barbara		RL140
42	Rickard Jr.	William		RL141
43	Riddering	John		FTS196
44	Riley	William	Columbia Basin Environmental Council	RL237
45	Riley	Susan K.	Soap Lake Chamber of Commerce	RL241
46	Riley	Susan		RL348
47	Risley	John		RL102
48	Ritzhaupt	Patricia		RL451

	Last Name	First Name	Organization Name	ContactID
1	Rivard	Donna		FTS197
2	Rivard	Victor		FTS198
3	Roberts	Ann		STR0902
4	Roberts	Gary		STR0903
5	Robinson	Bill	Trout Unlimited	STR0904
6	Robison	Marion		RL264
7	Robison	Marian Mae		STR0905
8	Robles	Diane M.		STR0906
9	Rockwell	Dennis K.		STR0907
10	Rockwell	Glenda S.		STR0908
11	Rodriguez	Octavio		FTS199
12	Rodriguez	Octavio Mrs.		FTS200
13	Roedell	Michael		RL031
14	Roening	Marcus	Tahoma Audubon Society	STR0909
15	Rogel	Clint		RL093
16	Rogers	Gordon		RL374
17	Rogers	Barbara		RL375
18	Rogo	Joel		STR0910
19	Roherbacher	Mary J.		STR0911
20	Rokkan	Bill J.		STR0912
21	Rokkan	Ellen E.		STR0913
22	Romine	Robert A.		STR0914
23	Ronning	Amber		STR0915
24	Rood	Del		STR0916
25	Rood	Phyllis		STR0917
26	Rosapere	John		RL214
27	Rose	Ray		RL119
28	Rose	Ray		RTR011
29	Rose	Elsa		STR0918
30	Rose	Ray		STR0919
31	Roseburg	Dan		FTS201
32	Ross	Rocky		RL123
33	Ross	Helen	Seattle Audubon Society	STR0920
34	Ross	Rocky		STR0921
35	Rosson	Lee H.		STR0922
36	Rosson	Mary Lou		STR0923
37	Rothrock	Dorothy J.		STR0924
38	Rothrock	Gayle		STR0925
39	Rowan	Grace R.		STR0926
40	Rude	J. Donald		STR0927
41	Rude	Olive		STR0928
42	Ruiz	Rosendo		FTS202
43	Rulan	Virginia S.		STR0929
44	Rummel	Carole A.		STR0930
45	Rummel	Karl R.		STR0931
46	Rupert	Greg		RL347
47	Rupert	Greg		RTS021
48	Rus	Tom		STR0932
49	Rush	Barbara		STR0933
50	Russell	Sandra		STR0934

	Last Name	First Name	Organization Name	ContactID
1	Rutte	Carol		RL124
2	Rutte	Carol		STR0935
3	Rutte	Joseph W.		STR0936
4	Ryan	Renate		RL369
5	Ryan	Edith F.		STR0937
6	Ryan	Maurine		STR0938
7	Ryan	W.J.		STR0939
8	Rykiel	Edward		STR0940
9	Rykiel	Frances		STR0941
10	Saar	Dawn		RL278
11	Sabin	Craig		FTS203
12	Sabin	Helen		FTS204
13	Sabin	Paul		FTS205
14	Sabin	Vicki		FTS206
15	Sabin	Paul		MCL017
16	Sabin	Paul		RL441
17	Sabotta	Patrick	Nez Perce Tribe	RL199
18	Safranek	William		RL236
19	Sage Associates			FTS207
20	Sagerser	Wendell		FTS208
21	Sahli	Wayne		FTS209
22	Sahli	Wayne		RL258
23	Salisbury	Mike		STR0942
24	Sampair	Leona		RL217
25	Sanchez	Adam		FTS210
26	Sanders	James		RE028
27	Sanders	Ben		RL099
28	Sanders	James	Benton PUD	RL381
29	Sandoval	Dominga		FTS211
30	Sandoval	Fidel		FTS212
31	Sandoval	Juan		FTS213
32	Sandoval	Ruben		FTS214
33	Sandoval	Teresa		FTS215
34	Sandoval	Ruben		MCL004
35	Sandoval	Juan		MCL018
36	Sandoval	Fidel		MCL038
37	Sauer	Sheila		STR0943
38	Sawyer	A.W.		STR0944
39	Sawyer	Kristina	Black Hills Audubon Society	STR0945
40	Sawyer	Rebecca		STR0946
41	Sawyer	Ron E.		STR0947
42	Schappel	Joan M.		STR0948
43	Schappel	Robert E.		STR0949
44	Scheidegger	Kay		STR0950
45	Schierbaum-Seely	J.A.		RL127
46	Schnelle	Robert		RL106
47	Schoental	Galen	Vancouver Audubon Society (Washington)	STR0951
48	Schrank	Ethan		STR0952
49	Schuhmann	Ralf		STR0953
50	Schuhmann	Sabine		STR0954

	Last Name	First Name	Organization Name	ContactID
1	Schuld	James		RL275
2	Scott	Bernadine M.	Richland Federal Women's Club	STR0955
3	Sears	Frank	North Cascades Audubon Society	STR0956
4	Seeman	Steve		STR0957
5	Seibel	Enid		STR0958
6	Seibel	Ralph		STR0959
7	Sexton	Dennis		STR0960
8	Shannon	Trudi		RL033
9	Sharp	Ron		RL025
10	Shaw	Timothy J.		STR0961
11	Shawley	Jean		STR0962
12	Sherman	Leigh		STR0963
13	Sherman	Raleigh		STR0964
14	Sherwood	Joan S.		STR0965
15	Shoemaker	Robert	Productivity, INC.	RL138
16	Shook	James		RL017
17	Shultz	M.D.		STR0966
18	Shurts	James A.		STR0967
19	Silver	Levon M.		STR0968
20	Simmons	David		STR0969
21	Simmons	Sally		STR0970
22	Simonen	Ed		STR0971
23	Simonen	Judy		STR0972
24	Simonson	Dan		RL015
25	Simpson	Daniel	Nuclear Consulting	RL328
26	Sims	Patricia		RL195
27	Sims	Lynn		RTP010
28	Skeels	Brian D.		STR0973
29	Skinnel	Al	Morrison Construction Services, Inc.	STR0974
30	Skinner	Kirk		FTS216
31	Skinner	Kirk		MCL027
32	Skubinna	Susan		STR0975
33	Skura	Stephanie		RL005
34	Sleegeer	Preston	U.S. Department of the Interior	RL443
35	Sleight	Ann		RL060
36	Smith	Carl		FTS217
37	Smith	Terence		FTS218
38	Smith	Ellen	Nature Conservancy of Washington	RL133
39	Smith	Jill		RL295
40	Smith	Laura	The Nature Conservancy	RTS014
41	Smith	Anita H.		STR0976
42	Smith	Annette		STR0977
43	Smith	Avlin E.		STR0978
44	Smith	Brian W.		STR0979
45	Smith	Cheryl Y.		STR0980
46	Smith	Clay		STR0981
47	Smith	Cliff		STR0982
48	Smith	Clifford E.		STR0983
49	Smith	Helen		STR0984
50	Smith	Joycelyn		STR0985

	Last Name	First Name	Organization Name	ContactID
1	Smith	Lannie		STR0986
2	Smith	Marlet K.		STR0987
3	Smith	Mary Ann		STR0988
4	Smith	Rollin		STR0989
5	Smyser	Lisa A.		STR0990
6	Smyser	Rex A.		STR0991
7	Snead	Tim	Grant County- Board of County Commissioners	RL001
8	Snead	Tim	Grant County	RTM003
9	Snegoski	Carolyn		RL274
10	Socha	Walt		RL091
11	Soden	Bettie		STR0992
12	Solders	Virgil Ray		FTS219
13	Solomon	George		FTS220
14	Solomon	George		MCL013
15	Solowan	Ruth		RL118
16	Sonchotena	Mitch	Idaho Steelhead and Salmon Unlimited	STR0993
17	Sonnichsen	Jack		STR0994
18	Sonnichsen	Jennifer		STR0995
19	Sonnichsen	Shirley		STR0996
20	Spaulding	Gary		STR0997
21	Spaulding	Renee		STR0998
22	Speiser	Robert		RL323
23	Spence	Merrill H.		STR0999
24	Spence	William C.		STR1000
25	Stambaugh	Ruth	WA Department of Natural Resources Volunteer	RL020
26	Stanley	John A.		STR1001
27	Stansbury	Paul		RE023
28	Stanton	Blythe C.		STR1002
29	Stanton	Edward B.		STR1003
30	Stapp	Darby		STR1004
31	Starke	Gretchen	Vancouver Audubon Society	RTP011
32	Stayner	Dale		RE014
33	Stearns	Gretchen	Vancouver Audubon Society	STR1005
34	Stebbins	Arlene		STR1006
35	Stebbins	William		STR1007
36	Steel	Marvin D.		STR1008
37	Steele	Brian		STR1009
38	Steffler	Brian		FTS221
39	Steffler	Dennis		FTS222
40	Steffler	Jenifer		FTS223
41	Steffler	Kathy		FTS224
42	Steffler	Dennis		MCL035
43	Steichen	Keb		STR1010
44	Steiner	Leonard	Washington Wildlife Federation	RL043
45	Steinle	Susan M.		STR1011
46	Stenzhorn	Monika		STR1012
47	Stepniewski	Andy		STR1013
48	Stevens	Marvin		FTS225
49	Stevens	Shannon		STR1014
50	Stevens	Todd		STR1015

	Last Name	First Name	Organization Name	ContactID
1	Stewart	George		RL105
2	Stiggers	Jan		STR1016
3	Stiggers	Keith		STR1017
4	Stillwell	Carrie	The Oregon Natural Desert Association	STR1018
5	Stipe	Wilbert A.		STR1019
6	Stone	Alex		STR1020
7	Stone	Laura		STR1021
8	Stout	Floyd		FTS226
9	Strebin	Robert S.		STR1022
10	Strehlow	Iris	Supporter of The Nature Conservancy	RL111
11	Stricker	Mark S.		STR1023
12	Strope	Brewster		RL004
13	Suess-Pierce	Janet		STR1024
14	Suess-Pierce	Julie		STR1025
15	Sukanto	Johanes H.		STR1026
16	Sullenger	Bud		RL268
17	Sullivan	Earlene		STR1027
18	Sullivan	Earlene		STR1028
19	Sullivan	Jeff		STR1029
20	Sullivan	Ron		STR1030
21	Sullivan	Rose		STR1031
22	Sullivan	Ryan		STR1032
23	Summersett	Shawn	In Support of The Nature Conservancy	RL024
24	Sutherland	Amy		STR1033
25	Sutherland	Michael		STR1034
26	Svete	Irene		RL086
27	Swan	Rhonda Jane		STR1035
28	Swanson	Michael Edward		FTS227
29	Swanson	John		RL227
30	Swart	Karen		STR1036
31	Swarts	Will		STR1037
32	Sweeney	Judy		STR1038
33	Swenson	Paul		STR1039
34	Tachell	Richard L.		STR1040
35	Tadlock	Charlotte		STR1041
36	Tancrei	Joanne		STR1042
37	Tardiff	Marie		STR1043
38	Taylor	Thad		FTS228
39	Taylor	Thad		MCL023
40	Taylor	Andrew		STR1044
41	Taylor	Bonnie		STR1045
42	Teague	Roni		STR1046
43	Teeple	Bruce E.		STR1047
44	Teeple	Delia P.		STR1048
45	Tegner	Betty		STR1049
46	Templeton	Muriel	Artemis Counseling Associates	RL256
47	Templeton	Andrew M.		STR1050
48	Templeton	Muriel		STR1051
49	Templeton	William		STR1052
50	Tenold	Janet		RL196
51	Terentieff	Dave		RTR013
52	Terentieff	Dave		RTR013

	Last Name	First Name	Organization Name	ContactID
1	Terrill	Kenneth C.		STR1053
2	Teske	Mark	Washington Dept. of Fish and Wildlife	RL318
3	Tetro	Dick		RTM018
4	Thacker	Ava		STR1054
5	Thacker	Cal		STR1055
6	Theasher	Julie		STR1056
7	Theime	Randy	The Inter-Mountain Alpine Club of Richland, Washington	STR1057
8	Thiede	Lois		FTS229
9	Thiede	Michael		FTS230
10	Thiede	Lois		RL305
11	Thiede	Mike		RL306
12	Thiede	Lois		RLM001
13	Thiede	Mike		RLM002
14	Thiede	Lois		RTM010
15	Thiede	Mike		RTM011
16	Thielman	Jim		STR1058
17	Thielman	Pat		STR1059
18	Thomas	Charles		RL073
19	Thomas	Alta P.		STR1060
20	Thomas	Sheryl D.		STR1061
21	Thomas	Vivian W.		STR1062
22	Thomason	John		FTS231
23	Thomason	Marjorie		FTS232
24	Thomas-Youngs	Sonia		STR1063
25	Thompson	K. Michael		STR1064
26	Thompson	M. Jean		STR1065
27	Thompson	Steven I.		STR1066
28	Thorns	Robin		RL079
29	Thorp	John		STR1067
30	Thorp	Lola		STR1068
31	Tillman	Steve	Morrison Construction Services, Inc.	STR1069
32	Tilton	Maurice E.		STR1070
33	Timmons	Jim		RTR007
34	Toler	Irwin G.		STR1071
35	Tomanawash	Robert		FTS233
36	Tomlinson	Esther		STR1072
37	Torres	Elizabeth		FTS234
38	Torres	Felipe		FTS235
39	Touhey	Charlotte		RL152
40	Tracy	Joan		RL142
41	Tracy	Joan I.		STR1073
42	Tracy	Keith		STR1074
43	Tracy	Robert K.		STR1075
44	Trautman	Gerald		FTS236
45	Trautman	Gerald		MCL015
46	Treleaven	Michael	Political Science Department - Gonzaga University	RL255
47	Tritt	Jack		RL364
48	Tritt	Andrea		RL365
49	Turete	Dorothy P.		STR1076
50	Turete	Robert B.		STR1077
51	Turgeon	Jeanne		RL191
52	Turnbaugh	Jerry		RTR010
53	Turner	Scott		RL449
54	Tuttle	Bruce		STR1078

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1	Tuttle	Cathy		STR1079
2	Ulrich	Mark		RTM014
3	Underwood	Robert A.	Blue Heron Photoworks	STR1080
4	Unreadable			RL062
5	Vaellancourt	Laurie		STR1081
6	Valdez	E s t r e b e r t o Mejia		FTS237
7	Van Cleve	Margie	Sierra Club	RL266
8	Van Fleet	Larry G.		STR1082
9	van Heel	Marla		STR1083
10	Van Hoff	Carl	Energy Northwest	RTM008
11	Van Horn	Dallas		STR1084
12	Van Horn	Teresa		STR1085
13	Van Winkle	Bill		STR1086
14	VanGessel	Anthony		STR1087
15	Varholdt	Greta		FTS238
16	Varholdt	Ingrid		FTS239
17	Varholdt	Kalle		FTS240
18	Varholdt	Paula		FTS241
19	Varholdt	Ronald		FTS242
20	Varholdt	Kalle		MCL026
21	Varnum	Susan		STR1088
22	Vigil	Jerry		RL356
23	Vlach	Irene		RL246
24	void			RL155
25	void			RL205
26	void			RL234
27	void			RL292
28	void			RL304
29	Vossler	Mark		RL144
30	Wagner	Jon A.		STR1089
31	Wahl	Karen		STR1090
32	Wahl	Robert E.		STR1091
33	Wallace	Richard	Supporter of the Nature Conservancy	RE003
34	Wallace	Nancy O.		RL186
35	Wallace	Anne P.		STR1092
36	Wallace	Richard W.		STR1093
37	Walsh	T.R.G.		STR1094
38	Walsh	Todd		STR1095
39	Walton	Mildred		RTR017
40	Walton	Betty		STR1096
41	Walton	Jim		STR1097
42	Walton	John G.		STR1098
43	Walton	Mildred L.		STR1099
44	Ward	R. Wilson		RL380
45	Ward	Michael A.		STR1100
46	Ward	Randall G.		STR1101
47	Warner	Gergory T.		STR1102
48	Warner	Teri A.		STR1103
49	Warrel	Kenneth E.		STR1104
50	Washburn	Dale		STR1105
51	Washburn	Dorothy		STR1106
52	Watkins	Kenneth		FTS243
53	Watkins	Linda		FTS244

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1	Watkins	Kenneth		MCL002
2	Watkins	Linda		RL436
3	Watson	John		RE017
4	Wattez	Robert		RL096
5	Watts	Dick		RTR026
6	Watts	Dick		STR1107
7	Weakley	Everett A.		STR1108
8	Webb	Clarence Ben		STR1109
9	Weber	Cory		FTS245
10	Weber	Dennis		FTS246
11	Weber	Ryan		FTS247
12	Weber	Ryan		MCL016
13	Weber	Barbara A.		STR1110
14	Weber	E. Thomas		STR1111
15	Weber	Myra Janice		STR1112
16	Weberline	Diana	Grant County Public Hospital District #5	RL442
17	Webring	Rod L.	Energy Northwest	RL233
18	Weed	Jane		RL115
19	Weeks	Violet		RL027
20	Weeks	Elmo L.		STR1113
21	Weeks	Regan		STR1114
22	Weeks	Violet H.		STR1115
23	Weier	Greg		STR1116
24	Weinstein	Dan		RL110
25	Weiss	Steve		RL181
26	Weiss	Mark		STR1117
27	Weiss	Meg		STR1118
28	Weisskopf	Gene	B Reactor Museum Association	RTR001
29	Welch	Robert W.		STR1119
30	Welker	Ellis		RL333
31	Wenke	Patricia		RL045
32	Werner	Dwayne		STR1120
33	Werner	Susan		STR1121
34	Wertz	Ingrid		STR1122
35	West	William		FTS248
36	Wheeler	Debra		FTS249
37	Wheeler	Nikki		STR1123
38	Whiteside	Jim		STR1124
39	Whitlock	Jason		STR1125
40	Whitney	Matt		RL117
41	Wieda	Karen J.		STR1126
42	Wilcox	James	Pacific Northwest Region, Trout Unlimited	RL042
43	Wilcox	James E.	Trout Unlimited	STR1127
44	Wiles	Jonathan C.		STR1128
45	Wilgus	Gary	Wilgus Taxidermy	STR1129
46	Wilhelm	Lyle	B Reactor Museum Association	RTR015
47	Wilhem	Lyle		STR1130
48	Williams	Janice		STR1131
49	Williams	Mark		STR1132
50	Willison	Marci		STR1133
51	Willison	Patrick		STR1134
52	Willmes	Cathy		STR1135
53	Willmes	Henry		STR1136
54	Wilson	Bob	Columbia River Conservation League	RL185

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1	Wilson	Bob	Columbia River Conservation League	RTR006
2	Wilson	Joan		STR1137
3	Wilson	Kevin Mark		STR1138
4	Wilson	Robert		STR1139
5	Winchel	Wanda		STR1140
6	Winckley	Lewis		FTS250
7	Wing	Kathy	The Nature Conservancy	RL107
8	Wing	Mary Lou	Wing Orchard	STR1141
9	Winiarczyk	Ellen		RL066
10	Winiarski	David		STR1142
11	Winkelman	Guy		RL061
12	Winters	Rosy		RTR021
13	Winters	Rose Marie		STR1143
14	Wireman	Ginger		RL267
15	Wise	Mike		STR1144
16	Witman	Cynthia		RL150
17	Wittenberg	Genevieve		RL294
18	Wittenberg	Dan		RL338
19	Wolcott	George F.	Law Office of George F. Wolcott	STR1145
20	Wolcott	Sybil W.	Law Office of George F. Wolcott	STR1146
21	Wolf	Sam		FTS251
22	Wonacott	Louise M.		STR1147
23	Wood	Joyce Cooley		STR1148
24	Woodley	Patsy L.		STR1149
25	Woodley	Robert E.		STR1150
26	Woodward	Helen		FTS252
27	Woodward	John		FTS253
28	Woodward	Jewell		RL028
29	Woodward	Scott		RL034
30	Woodward	Scott	Save the Reach	RTR004
31	Woodward	Berta		STR1151
32	Woodward	Scott		STR1152
33	Woodward	Woody		STR1153
34	Woodworth	A.D.		FTS254
35	Worsley	John		RL194
36	Wright	Beth		STR1154
37	Wright	Brad		STR1155
38	Wright	Judith	UFA Adventures, Inc.	STR1156
39	Wright	Marilyn J.		STR1157
40	Wrylie	Melvin		STR1158
41	Yake	Bill		RL023
42	Yale	Jack A.		STR1159
43	Yale	Peggy		STR1160
44	Yancey	Joe		FTS255
45	Yates	Susan A.		STR1161
46	Yim	Marsha		RL151
47	Yorgensen	Peter		RL341
48	Yorgensen	Jack		RTM012
49	Yorgesen	Brian		FTS256
50	Yorgesen	Cindy		FTS257
51	Yorgesen	David		FTS258
52	Yorgesen	Kevin		FTS259
53	Yorgesen	Jack		RL330
54	Young	Jack	Washington Environmental Council	RTR016

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Last Name	First Name	Organization Name	ContactID
Young	Joan		STR1162
Yuse	Frank	Senior Legislative Coalition of Eastern Washington	RTS012
Zakrajsek	Martin F.		STR1163
Zemanian	Thomas S.		STR1164
Zimmer	Kathleen		RL244
Zinkle	Lew		STR1165
Zinkle	Sara		STR1166
Zozaya-Geist	Ines		STR1167
Zuhlke	Doyle		STR1168
Zuhlke	Mary J.		STR1169
Zybas	Matthew		RLR005

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ContactID	First Name	Last Name	Organization Name
FTS001	Lupe	Aguilar	
FTS002	Michael	Alberg	
FTS003	Shane	Alberg	
FTS004	Jose	Alvarado	
FTS005	Minnie	Alvarado	
FTS006	Pedro	Alvarado	
FTS007	Albert	Anderson	
FTS008	Kevin	Anderson	
FTS009	Ray	Anderson	
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FTS016	Commodore E.	Beaver	
FTS017	Roger	Bird	
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FTS029	Jeffrey	Calaway	
FTS030	Kerry	Calaway	
FTS031	Kip	Calaway	
FTS032	Kurt	Candee	
FTS033	German	Cardenas	
FTS034	Jesus	Cardenas	
FTS035	Alberto	Carranza	
FTS036	Alberto III	Carranza	
FTS037	George	Carroll	
FTS038	Reyaldo	Chaver	
FTS039	Del	Christensen	
FTS040	Michael	Chumley	
FTS041	Ray	Chumley	
FTS042	Bess	Clyde	
FTS043	Craig	Clyde	
FTS044	D.E.	Clyde	
FTS045	David Patrick	Clyde	
FTS046	Mike	Conley	
FTS047	Bill	Conwell	
FTS048	Royce	Cordova	

	ContactID	First Name	Last Name	Organization Name
1	FTS049	Walter	Cordova	
2	FTS050	Carmen	Cordova-Weber	
3	FTS051	Vern	Cox	
4	FTS052	Lewis	Crocker	
5	FTS053	Robert	Crocker	
6	FTS054	Bob	Crump	
7	FTS055	Jim	Culverwell	
8	FTS056	Sandy	Culverwell	
9	FTS057	James	Curdy	
10	FTS058	Carolyn	Curley	
11	FTS059	Thomas	Dagnon	
12	FTS060	Lauri	Dayton	
13	FTS061	James	Eklund	
14	FTS062	Shelly	Erickson	
15	FTS063	G. Bruce	Esleidsen	
16	FTS064	Arnold	Esparza	
17	FTS065	Richard	Esparza	
18	FTS066	Carolyn	Esparza	
19	FTS067	Cipriano	Esparza	
20	FTS068	Cipriano Jr.	Esparza	
21	FTS069	Judy	Esser	
22	FTS070	Joel	Fabela	
23	FTS071	Pablo	Fabela	
24	FTS072	Robert	Fentiman	
25	FTS073	Daniel	Fox	
26	FTS074	James	Fox	
27	FTS075	Jerome	Fox	
28	FTS076	Julie	Fox	
29	FTS077	Patrick	Fox	
30	FTS078	Kathy	Gammon	
31	FTS079	Robert	Gangle	
32	FTS080	Steven	George	
33	FTS081	Lloyd	Goraski	
34	FTS082		Grant County Fire District 8	
35	FTS083	Janet	Green	
36	FTS084	Ken	Haney	
37	FTS085	Bruce	Harker	
38	FTS086	Sam	Harker	
39	FTS087	James	Harmon	
40	FTS088	Carolyn	Harris	
41	FTS089	Leona	Harris	
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44	FTS092	Dan	Hatch	
45	FTS093	Mike	Hatch	
46	FTS094	D.B.	Hawatt	
47	FTS095	Roger	Heintz	
48	FTS096	Leonard	Henderson	
49	FTS097	Charlie	Hirai	

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1	FTS098	Harvey	Hirai	
2	FTS099	Rio	Hirai	
3	FTS100	James	Holt	
4	FTS101	Noy	Holt	
5	FTS102	Edwin	Hood	
6	FTS103	Wade	Hulsizer	
7	FTS104	Gerald	Isack	
8	FTS105		J & S Cattle Co.	
9	FTS106	Richard	Jenkin	
10	FTS107	Tim	Jenne	
11	FTS108	Genaro	Jimenez	
12	FTS109	Jaime	Jimenez	
13	FTS110	Jorge	Jimenez	
14	FTS111	Juan	Jimenez	
15	FTS112	Irene	Johnson	
16	FTS113	Marion	Johnson	
17	FTS114	Elmer	Johnston	
18	FTS115	Martin	Keeley	
19	FTS116	Patrick	Keeley	
20	FTS117	Russell	Keeley	
21	FTS118	Ruth	Keeley	
22	FTS119	Charles	Kilbury	
23	FTS120	Thomas Jr.	Larsen	
24	FTS121	Alva John	Ledford	
25	FTS122	Debra	Ledford	
26	FTS123	Richard	Leitz	
27	FTS124	Glenn	Leland	
28	FTS125	Alex	Loera	
29	FTS126	J. Manuel	Loera	
30	FTS127	Jaime	Loera	
31	FTS128	Javier	Loera	
32	FTS129	Adam	Lopez	
33	FTS130	Carole	Love	
34	FTS131	Gordon	Lowell	
35	FTS132	Charles	Lyll	
36	FTS133	Frank	Lyll	
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38	FTS135	Janice	Mahaney	
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42	FTS139	Pablo	Martinez	
43	FTS140	Simona	Martinez	
44	FTS141	Dan	Maughan	
45	FTS142	Gary	Maughan	
46	FTS143	Joseph	Maughan	
47	FTS144	Nathan	Maughan	
48	FTS145	Rebecca	Maughan	
49	FTS146	Hedwig	McCormick	
50	FTS147	J.W.	McFall	

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1	FTS148	Philip	McGuire	
2	FTS149	Margaret	McLain	
3	FTS150	Hector	Mendez	
4	FTS151	Miguel	Mendoza	
5	FTS152	Emily	Molitor	
6	FTS153	John	Molitor	
7	FTS154	Mathew	Molitor	
8	FTS155	Michael	Molitor	
9	FTS156	Patrick	Molitor	
10	FTS157	Ray	Molitor	
11	FTS158	Seana	Molitor	
12	FTS159	Jose	Monero	
13	FTS160	Erik William	Moore	
14	FTS161	Terry	Moore	
15	FTS162	Ruben	Morales	
16	FTS163	Alfred	Morgan	
17	FTS164	Donna	Morgan	
18	FTS165	Francis	Morgan	
19	FTS166	Mike	Morgan	
20	FTS167	Beverly	Ohlhausen	
21	FTS168	J. Reyes	Olivares	
22	FTS169	Jesus	Olivera	
23	FTS170	Jorge	Olivera	
24	FTS171	Guadalupe	Orozco	
25	FTS172	Paul	Parker	
26	FTS173	Mike	Pavey	
27	FTS174	Mickey	Pehrson	
28	FTS175	Andrea	Pena	
29	FTS176	Rick	Pena	
30	FTS177	Felipe	Peralez Sandoval	
31	FTS178	David	Perdes	
32	FTS179	Celedonio	Perez	
33	FTS180	Javier	Perez	
34	FTS181	Sandy	Perez	
35	FTS182	Gaylord	Perkins	
36	FTS183	Rodney	Phillips	
37	FTS184	Billy	Popejoy	
38	FTS185	Bobette	Rackley	
39	FTS186	Mike	Rackley	
40	FTS187	Sam Jr.	Rackley	
41	FTS188	Sam Sr.	Rackley	
42	FTS189	William	Rackley	
43	FTS190	Charles	Ragland	
44	FTS191	Felix	Ramirez	
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47	FTS194	Mark	Reake	
48	FTS195	William	Richards	
49	FTS196	John	Riddering	
50	FTS197	Donna	Rivard	

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1	FTS198	Victor	Rivard	
2	FTS199	Octavio	Rodriguez	
3	FTS200	Octavio Mrs.	Rodriguez	
4	FTS201	Dan	Roseburg	
5	FTS202	Rosendo	Ruiz	
6	FTS203	Craig	Sabin	
7	FTS204	Helen	Sabin	
8	FTS205	Paul	Sabin	
9	FTS206	Vicki	Sabin	
10	FTS207		Sage Associates	
11	FTS208	Wendell	Sagerser	
12	FTS209	Wayne	Sahli	
13	FTS210	Adam	Sanchez	
14	FTS211	Dominga	Sandoval	
15	FTS212	Fidel	Sandoval	
16	FTS213	Juan	Sandoval	
17	FTS214	Ruben	Sandoval	
18	FTS215	Teresa	Sandoval	
19	FTS216	Kirk	Skinner	
20	FTS217	Carl	Smith	
21	FTS218	Terence	Smith	
22	FTS219	Virgil Ray	Solders	
23	FTS220	George	Solomon	
24	FTS221	Brian	Steffler	
25	FTS222	Dennis	Steffler	
26	FTS223	Jenifer	Steffler	
27	FTS224	Kathy	Steffler	
28	FTS225	Marvin	Stevens	
29	FTS226	Floyd	Stout	
30	FTS227	Michael Edward	Swanson	
31	FTS228	Thad	Taylor	
32	FTS229	Lois	Thiede	
33	FTS230	Michael	Thiede	
34	FTS231	John	Thomason	
35	FTS232	Marjorie	Thomason	
36	FTS233	Robert	Tomanawash	
37	FTS234	Elizabeth	Torres	
38	FTS235	Felipe	Torres	
39	FTS236	Gerald	Trautman	
40	FTS237	Estreberto Mejia	Valdez	
41	FTS238	Greta	Varholdt	
42	FTS239	Ingrid	Varholdt	
43	FTS240	Kalle	Varholdt	
44	FTS241	Paula	Varholdt	
45	FTS242	Ronald	Varholdt	
46	FTS243	Kenneth	Watkins	
47	FTS244	Linda	Watkins	
48	FTS245	Cory	Weber	
49	FTS246	Dennis	Weber	
50	FTS247	Ryan	Weber	

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1	FTS248	William	West	
2	FTS249	Debra	Wheeler	
3	FTS250	Lewis	Winckley	
4	FTS251	Sam	Wolf	
5	FTS252	Helen	Woodward	
6	FTS253	John	Woodward	
7	FTS254	A.D.	Woodworth	
8	FTS255	Joe	Yancey	
9	FTS256	Brian	Yorgesen	
10	FTS257	Cindy	Yorgesen	
11	FTS258	David	Yorgesen	
12	FTS259	Kevin	Yorgesen	
13	RE001	Jeana	Frazzini	
14	RE002	Jacqueline	Gardner	Supporter of The Nature Conservancy
15	RE003	Richard	Wallace	Supporter of the Nature Conservancy
16	RE004	Robert	Hatton	Supporter of The Nature Conservancy
17	RE005	James	Johnston	
18	RE006	Elaine	Nonneman	
19	RE007	Jennifer	Kauffman	
20	RE008	William	Kuhn	
21	RE009	Nancy	Murphy	
22	RE010	Marilyn	Ream and Fred Runkle	
23	RE011 assigned in error; void.			
24	RE012	Paul	Lindholdt	Sierra Club Upper Columbia/Eastern Environmental
25	RE013	Jim	Dwyer	
26	RE014	Dale/Billie	Stayner	
27	RE015	Brian	Miller	
28	RE016	Donna	Caulton	
29	RE017	John	Watson	
30	RE018	Doris	Mussil	
31	RE019	Alma	Cahn	
32	RE020	Edward/Janet	Reynolds	
33	RE021	Kammie	Bunes	
34	RE022	Larry	Cadwell	Pacific Northwest National Laboratory
35	RE023	Paul	Stansbury	
36	RE024	Fred	Raab	LIGO Hanford Observatory
37	RE025	Rex	Crawford	Forest Resources Division
38	RE026	Jack/Sharon	Cody	
39	RE027	Larry	Hampson and Laura Ackerman	
40	RE028	James	Sanders	Benton County PUD
41	RE029	Carl	Bevis	
42	RE030	Fred	Raab	LIGO Hanford Observatory
43	RL001	Tim	Snead	Grant County Commissioner
44	RL002	Victor/Roberta	Moore	
45	RL003	John/Pam	Bigas	
46	RL004	Brewster	Strope	
47	RL005	Stephanie	Skura	

	ContactID	First Name	Last Name	Organization Name
1	RL006	Lawrence	Jacobson	
2	RL007	Cynthia	Weeks	
3	RL008	Donald	Kent	
4	RL009	Don/Mardelle	Jensen	Save the Reach Coalition
5	RL010	Shannon	O'Brien	
6	RL011	Mary	Nowakowski	The Nature Conservancy
7	RL012	Michael/Barbara	Hill	
8	RL013	Warren/Ina	Brown	
9	RL014	Michelle	Gaither	
10	RL015	Dan	Simonson	
11	RL016	James	Masson	In Support of The Nature Conservancy
12	RL017	James/Persis	Shook	
13	RL018	Norman	Kunkel	
14	RL019	Caprice	Consalvo-Olson	In Support of Save the Reach Coalition
15	RL020	Ruth	Stambaugh	WA Department of Natural Resources Volunteer
16	RL021	Tim	Pavish	
17	RL022	Donald/Suzanne	Benson	Supporter of The Nature Conservancy
18	RL023	Bill	Yake	
19	RL024	Shawn	Summersett	In Support of The Nature Conservancy
20	RL025	Ron	Sharp	
21	RL026	Pam	Larsen	
22	RL027	Violet	Weeks	
23	RL028	Jewell	Woodward	
24	RL029	Laurinda	Johnsen	
25	RL030	Lenore	Edwards and John LeLouis	
26	RL031	Michael	Roedell	
27	RL032	James	McRoberts	
28	RL033	Trudi	Shannon	
29	RL034	Scott	Woodward	
30	RL035	Diane	Ackerman	Washington Native Plant Society
31	RL036	Rella	Foley	
32	RL037	Peggy	Claflein	
33	RL038	Keith/Jane	Lazelle	
34	RL039	James	McDonald	
35	RL040	Betsy/David	Potts	
36	RL041	Geraldine	Chambers	
37	RL042	James	Wilcox	Pacific Northwest Region, Trout Unlimited
38	RL043	Leonard	Steiner	Washington Wildlife Federation
39	RL044	Laddie Ray	Melvin	
40	RL045	Patricia	Wenke	
41	RL046	J. Alex	Maxwell	
42	RL047	Marlene	Miller	
43	RL048	Joni	Crippen	
44	RL049	Thomas	Coyle	
45	RL050	Louis	Perry	
46	RL051	Richard	Badalamente	
47	RL052	Pamela	Carsey	
48	RL053	David	Hedge	

	ContactID	First Name	Last Name	Organization Name
1	RL054	James	Pippard	
2	RL055	Russell/Rose	Lagerberg	
3	RL056	James	Heidenreich	
4	RL057	E. Laurel	Mauney	
5	RL058	Russell/Marian	Frobe	
6	RL059	Vivian	Kuehl	
7	RL060	Ann	Sleight	
8	RL061	Guy	Winkelman	
9	RL062		Unreadable	
10	RL063	Al	Hanners	
11	RL064	Anne	Lafonte	
12	RL065	Martha	Medak	
13	RL066	Ellen	Winiarczyk	
14	RL067	Walter	Lockwood	
15	RL068	John	Long	Supporter of Save the Reach Coalition
16	RL069	John	Harville	
17	RL070	James	Barrett	
18	RL071	David/Mozelle	Holloway	
19	RL072	Marian	Blue	
20	RL073	Charles	Thomas	
21	RL074	Kim	Burkland	Gorge Paddlers Club
22	RL075	Ed	Adams	
23	RL076	Ken	Cobleigh	
24	RL077	Mr. & Mrs. Robert	Ferber	
25	RL078	Ora Mae	Orton	
26	RL079	Robin	Thorns	
27	RL080	Linda/Gary	McLain	
28	RL081	Claude/ Stella Mae	O'Connell	
29	RL082	Nora	Dobbyn	
30	RL083	Janet	France	
31	RL084	James/Harriett	Clark	
32	RL085	Elaine	Moore	
33	RL086	Irene	Svete	
34	RL087	James	Hulbert	James H. Hulbert and Associates
35	RL088	Mr. And Mrs. Joe	Miles	
36	RL089	Enid	Griffin	
37	RL090	Kathleen	Ramage	
38	RL091	Walt	Socha	
39	RL092	Nancy	Ashenfelter	
40	RL093	Clint	Rogel	
41	RL094	Jef	Kaiser	
42	RL095	Doris	McHenry	
43	RL096	Robert	Wattez	
44	RL097	Russell	Jim	Confederated Tribes of the Yakama Indian Nation
45	RL098	Pearl	Bowen	
46	RL099	Ben	Sanders	
47	RL100	Georgia	Conti	
48	RL101	Jana	Freiberger	

	ContactID	First Name	Last Name	Organization Name
1	RL102	John	Risley	
2	RL103	Karen	Hinman	Washington Native Plant Society
3	RL104	Glen	Kirkpatrick	
4	RL105	George	Stewart	
5	RL106	Robert	Schnelle	
6	RL107	Kathy	Wing	The Nature Conservancy
7	RL108	Jack	Hornung	
8	RL109	Linda/Ervin	Anderson	
9	RL110	Dan	Weinstein	
10	RL111	Iris	Strehlow	Supporter of The Nature Conservancy
11	RL112	James	Boone and Joseph Bucuzzo	
12	RL113	Frances	Murchey	
13	RL114	Robert	Rasmussen	
14	RL115	Jane/Frank	Weed	
15	RL116	Helen	Hastay	
16	RL117	Matt	Whitney	
17	RL118	Ruth/Ernest	Solowan	
18	RL119	Ray	Rose	
19	RL120	Al	Hageman	
20	RL121	Beula	Kelpman	
21	RL122	Tom	Cordell	
22	RL123	Rocky	Ross	
23	RL124	Carol	Rutte	
24	RL125	Timothy	De Witt	
25	RL126	Robert	Johnson	
26	RL127	J.A.	Schierbaum-Seely	
27	RL128	Jimmye	Angell-Erickson, Verdie Erickson, Jennifer Winters, Jean & Bill Krapfel, and Judith Potts	
28	RL129	John	Miller	
29	RL130	Kathryn	Ehlers	
30	RL131	Jim	Pritchard	
31	RL132	Betty	Durant	Member of the Sierra Club
32	RL133	Ellen	Smith	Nature Conservancy of Washington
33	RL134	Ashli	Carter-Smith	
34	RL135	Charlotte	Reep	
35	RL136	Meredith	Long	
36	RL137		Anonymous	
37	RL138	Robert	Shoemaker	Productivity, INC.
38	RL139	Paul/Deborah	Crosette	
39	RL140	Barbara	Rickard	
40	RL141	William	Rickard Jr.	
41	RL142	Joan	Tracy	
42	RL143	Chris	Bowen	
43	RL144	Mark/Susan	Vossler	
44	RL145	Frank	Houghton	
45	RL146	Ruth	Peterson	

	ContactID	First Name	Last Name	Organization Name
1	RL147	Delbert	Ballard	B Reactor Museum Association
2	RL148	Donna/Dennis	Neuzil	
3	RL149	Lou	Bubala	
4	RL150	Cynthia	Witman	
5	RL151	Marsha	Yim	
6	RL152	Charlotte	Touhey	
7	RL153	Sheilagh	Brown	
8	RL154	Alisa	Huckaby	
9	RL155 - letter number assigned in error; voided.			
10	RL156	Travis	Elliott	
11	RL157	Robyn/Derek	Lowe	
12	RL158	E.M. Elizabeth	Nelson	
13	RL159	Kristine	Brotherton	
14	RL160	Richey	Bellinger	
15	RL161	Jean E.	Caldwell	
16	RL162	Marjorie H.	Ahrens	
17	RL163	Lois	Johnston	
18	RL164	Catherine	Kettrule	
19	RL165	Emily	Platt	
20	RL166	Kenneth W.	Holt	Department of Human & Health Services
21	RL167	Dawn	Corl	
22	RL168	Cris M.	Currie/ Nora Searing	
23	RL169	Helene	Jenkins	
24	RL170	Duane	Faletti	
25	RL171	Sharon	Faletti	
26	RL172	Kim	Bailey	
27	RL173	Thelma T.	Gilmur	
28	RL174	Nathan/Elaine	Ballou	
29	RL175	Elizabeth/Robert	Lathrop	
30	RL176	Evelyn	Norsen	
31	RL177	Daniel	Pensak	
32	RL178	Barbara	Burk Zielstra	
33	RL179	Katherine P.	Ransel	American Rivers
34	RL180	Irene	Kochendorfer	
35	RL181	Steve	Weiss	
36	RL182	Ann	Ingrahm	
37	RL183	Meta	Heller	Save the Reach Coalition
38	RL184	J.E.	Guenther	
39	RL185	Bob	Wilson	Columbia River Conservation League
40	RL186	Nancy O.	Wallace	
41	RL187	Catherine A.	French	
42	RL188	Janet	Kimball	
43	RL189	Elizabeth	Bryer	
44	RL190	Lillian	McDonell	
45	RL191	Jeanne	Turgeon	
46	RL192	Holly	Hinman	Supporter of Save the Reach Coalition
47	RL193	Connie	Johnston	
48	RL194	John	Worsley	
49	RL195	Patricia	Sims	

	ContactID	First Name	Last Name	Organization Name
1	RL196	Janet	Tenold	
2	RL197	Mattie	Hyslop	
3	RL198	Kerry	Masters	
4	RL199	Patrick	Sabotta	Nez Perce Tribe
5	RL200	Ben	Bennett	Port of Benton
6	RL201	Roy	Gephart	Pacific Northwest National Laboratory
7	RL202	Rebecca J.	Inman	State of Washington Department of Ecology
8	RL203	Janice/ Kenneth	Absher	
9	RL204	Rick	Leaumont	Lower Columbia Basin Audubon Society
10	RL205 - letter number assigned in error; void.			
11	RL206	Michael A.	Lilga	
12	RL207	Alan R.	Poplawsky and Diane Prorak	
13	RL208	Rose	Peters	
14	RL209	Bill	Redman	Steelhead Committee, Federation of Fly Fishers
15	RL210	Mary Lou	Joseph	
16	RL211	Erin	Madden	
17	RL212	Dorothy	Carter	
18	RL213	Lorraine	Dukes	
19	RL214	John	Rosapere	
20	RL215	Walter	Mintkeski	
21	RL216	Aileen	Jeffries	
22	RL217	Leona	Sampair	
23	RL218	Karen	Lewis-Hart	
24	RL219	Blaine	Hammond	
25	RL220	Phil	Hoge	
26	RL221	Danna	Dal Porto	
27	RL222	Chuck	Lennox	Seattle Audubon Society
28	RL223	Karen	Fant	
29	RL224	Christine	Psyk	
30	RL225	Monica	Canagnaro	
31	RL226	Michele	Flores-Pacha	
32	RL227	John	Swanson	
33	RL228	Kay/W.L.	Forsythe	
34	RL229	Dorothy	Adkins	
35	RL230	Timothy J.	Coleman	Kettle Range Conservation Group
36	RL231	Lorree	Gardner Milne	In support of the Sierra Club
37	RL232	Manuel	Cuevas	
38	RL233	Rod L.	Webring	WPPSS/Energy Northwest
39	RL234 - letter number assigned in error; voided			
40	RL235	Joyce	Dennison	
41	RL236	William	Safranek	
42	RL237	William	Riley	Columbia Basin Environmental Council
43	RL238	Howard	Harris	
44	RL239	Linda	James	
45	RL240	Irwin W.	Graedel	
46	RL241	Susan K.	Riley	Soap Lake Chamber of Commerce
47	RL242	Amity Jo	Lumper	
48	RL243	Mike	Peterson	The Lands Council

	ContactID	First Name	Last Name	Organization Name
1	RL244	Kathleen	Zimmer	
2	RL245	Curtis	Strong	
3	RL246	Irene	Vlach	
4	RL247	Lloyd/Mildred	Kellogg	
5	RL248	Robert	Lonn	NW Council of Governments and Associates
6	RL249	Richard	Heggen	
7	RL250	Marian	Hennings	
8	RL251	Carroll	Orcutt	
9	RL252	Dawn	Bern	
10	RL253	David	Peppard	
11	RL254	Stephen/Geana	Lijek	
12	RL255	Michael	Treleaven	Gonzaga University-Political Science Department
13	RL256	Muriel	Templeton	
14	RL257	Elizabeth	Belles	
15	RL258	Wayne	Sahli	
16	RL259	Judith	Mayer	
17	RL260	Jim	Curdy, Jr.	
18	RL261	Charles	Meyer	
19	RL262	Ann	Langer	
20	RL263	Jeremy	Page	
21	RL264	Marian	Robison	
22	RL265	Cheryl	Brownlee	
23	RL266	Margie	Van Cleve	The Sierra Club
24	RL267	Ginger	Wireman	
25	RL268	Bud/Irene	Sullenger	
26	RL269	Louisa	Nishitani	
27	RL270	Julian	Powers	
28	RL271	Beverly	McLaughlin	The Nature Conservancy
29	RL272	Suzy	Meyer and John Kearney	
30	RL273	Genna Swan	Porter	
31	RL274	Carolyn	Snegoski	
32	RL275	James/Betty	Schuld	
33	RL276	Cathy/Ed	Maxwell	
34	RL277	Rita	Bailie	
35	RL278	Dawn	Saari	
36	RL279	Charles	Burke	
37	RL280	E.	Ratisseau	
38	RL281	Kendall	Feeny	
39	RL282	John	Flicker	National Audubon Society
40	RL283	Rex	Crawford	WNHP, Forest Resources Division
41	RL284	Cheryl	Blakely	
42	RL285	Michael J.	Martinez	S. Martinez Livestock Inc.
43	RL286	Mozelle	Holloway	
44	RL287	David T.	Holloway	
45	RL288	Charles	Lewinsohn	
46	RL289	Jane	Cunningham	
47	RL290	Claude L.	Oliver	Benton County Board of Commissioners
48	RL291	Mary Lou	Blazek	Nuclear Safety Division, Oregon Office of Energy
49	RL292	- letter number assigned in error; void.		

	ContactID	First Name	Last Name	Organization Name
1	RL293	Merilyn B.	Reeves	Hanford Advisory Board
2	RL294	Genevieve	Wittenberg	
3	RL295	Jill	Smith	
4	RL296	Charles	Fisk	Spokane Canoe and Kayak Club
5	RL297	Sergio	Cervantes	
6	RL298	Alan	Hilliker	Saddle Mountain Bible Church
7	RL299	Chase	Davis	
8	RL300	Ryan	Lieuallen	
9	RL301	Manuel	Ornelas	
10	RL302	Jim	Berry	
11	RL303	Kendall	Brown	
12	RL304	Dan	Simpson	
13	RL305	Lois	Thiede	
14	RL306	Mike	Thiede	
15	RL307	Mike	Conley	Port of Mattawa
16	RL308	Paul	Lindholdt	Sierra Club Upper Columbia/Eastern Environmental
17	RL309	Suzette	Ashby	
18	RL310	Ben	Brattebo	
19	RL311	Tom	Brattebo	
20	RL312	Patty	Houff	
21	RL313 - letter number assigned in error; void.			
22	RL314	Michael	Lilga	
23	RL315	Lynn	Krupa	
24	RL316	Nancy	Parent	
25	RL317	Gerald	Pollet	Heart of America Northwest
26	RL318	Dale	Bambrick	Washington Dept. of Fish and Wildlife
27	RL319	Leo	Bowman	Port of Benton
28	RL320	Kenneth	Bevis	
29	RL321	Rae	Barnett	
30	RL322	William	Martin	Tri-City Industrial Development Council
31	RL323	Robert	Speiser	
32	RL324	William	Feddeler	Vancouver Audubon Society
33	RL325	Larry	Cadwell	Pacific Northwest National Laboratory
34	RL326	Debra	Davis	
35	RL327	Arthur	Hathaway	
36	RL328	Daniel	Simpson	Nuclear Consulting
37	RL329	Dick	Carlson	Carlson Orchards
38	RL330	Jack	Yorgesen	
39	RL331	Guadalupe	Flores	
40	RL332	Brent	Anderson	
41	RL333	Ellis	Welker	
42	RL334	Duane	Freeborn	
43	RL335	Allen	Hirai	Wilbur Ellis
44	RL336	Veral	Hansen	
45	RL337	Andy	Arnold	
46	RL338	Dan	Wittenberg	
47	RL339	Daniel	Finn	
48	RL340	Cheryl	Eiholzer/ Mark Hoza	
49	RL341	Peter	Yorgesen	

	ContactID	First Name	Last Name	Organization Name
1	RL342	Jason	Everly	
2	RL343	Barbara	Botta	
3	RL344	John	Finn	
4	RL345	Bill	Johns	
5	RL346	Kell	McAboy	
6	RL347	Greg	Rupert	
7	RL348	Susan	Riley	
8	RL349	Ron	Raburn	City of Richland
9	RL350	Ken	Entzel	Wilbur Ellis
10	RL351	Tammy	Merkle	
11	RL352	Donald	Galbreath	
12	RL353	Gloria	Fischer	
13	RL354	Howard	Brewer	
14	RL355	Paula	Clark	
15	RL356	Jerry	Vigil	
16	RL357	Laureano/Sylvia	Barajas	
17	RL358	Marion	Moos	
18	RL359	Elliot	Marks	The Nature Conservancy of Washington
19	RL360	Les	Davenport	
20	RL361	David	McMullen	Dept. of the Interior, Fish and Wildlife Service
21	RL362	Colleen/Jim	Lourie	
22	RL363	Ronald/Janet	Nelson	
23	RL364	Jack	Tritt	
24	RL365	Andrea	Tritt	
25	RL366	Jeb/Gloria	Baldi	
26	RL367	Joanne	Hirabayashi	
27	RL368	Lawrence	Greer	
28	RL369	Renate	Ryan	
29	RL370	Marlene	Berry	
30	RL371	William	Adair	
31	RL372	Rex	Mather	
32	RL373	Gary	Carter	
33	RL374	Gordon	Rogers	
34	RL375	Barbara	Rogers	
35	RL376	Kammie	Bunes	
36	RL377	Barbara	Gilson and Rich Rollins	
37	RL378	Molly	Krupa	
38	RL379	Elizabeth	Kugi	Our Lady of the Snows Catholic Church
39	RL380	R. Wilson	Ward	
40	RL381	James	Sanders	Benton PUD
41	RL382	Carol	Morten	
42	RL383	Stacie	Hall	
43	RL384	Rebecca	Maughan	
44	Letter Numbers RL385 through RL435 were assigned in error and subsequently voided.			
45	RL436	Linda	Watkins	
46	RL437	Gordon	Lowell	
47	RL438	Steven	Clark	
48	RL439	Jennifer	Lewinsohn	
49	RL440	Patty	Murray	United State Senate

	ContactID	First Name	Last Name	Organization Name
1	RL441	Paul	Sabin	
2	RL442	Diana	Weberling	Grant County Public Hospital District #5
3	RL443	Preston	Sleeper	U.S. Department of the Interior
4	RL444	Ann	Dursch	
5	RL445	Richard	Parkin	U.S. EPA, Region 10
6	RL446	Fred	Raab	Laser Interferometer Gravitational-Wave Observatory (LIGO) Hanford
7	RL447	Douglas	Merkle	
8	RL448	Hal	Lindstrom	Kittitas Audubon Society
9	RL449	Scott	Turner	
10	RL450	William	Bowen	
11	RL451	Patricia	Ritzhaupt	
12	RL452	Ruth	Deery	Willapa Hills Audubon Society
13	RL443	Victor	Cook	National Science Foundation
14	RLM001	Lois	Thiede	
15	RLM002	Mike	Thiede	
16	RLM003	Mike	Conley	Grant County Port District #3
17	RLP001	Barbara	Drageaux	Women's International League for Peace and Freedom
18	RLR001	John (Jack)	de Yonge	Washington Environmental Council
19	RLR002	Jack	Dawson	
20	RLR003	Murrel	Dawson	Save the Reach Coalition
21	RLR004	Dennis	Kreid	Columbia River Conservation League
22	RLR005	Matthew	Zybas	
23	RLR006	Victor & Roberta	Moore	
24	RLS001	Paul	Lindholdt	Sierra Club Upper Columbia/Eastern Environmental
25	RLS002	Suzette	Ashby	
26	RLS003	Ben	Brattebo	
27	RLS004	Tom	Brattebo	
28	RLS005	Patty	Houff	
29	RTM001	Matt	Morton	Grant County Planning Department
30	RTM002	Deborah	Moore	Grant County Commissioner
31	RTM003	Tim	Snead	Grant County Commissioner
32	RTM004	Richard	Leitz	Port Commissioner, Port of Mattawa
33	RTM005	Mike	Conley	Grant County Port District #3
34	RTM006	William	Miller	Superintendent, Wahluke School District
35	RTM007	Jim	Curdy	
36	RTM008	Carl	Van Hoff	Energy Northwest
37	RTM009	Lauri	Dayton	Vice-Chair, Wahluke School District
38	RTM010	Lois	Thiede	
39	RTM011	Mike	Thiede	
40	RTM012	Jack	Yorgesen	
41	RTM013	James	Harmon	
42	RTM014	Mark	Ulrich	
43	RTM015	Glenn	Leeland	
44	RTM016	LeRoy	Allison	Grant County Commissioner
45	RTM017	Terry	Brewer	Grant County Economic Development Council
46	RTM018	Dick	Tetro	

	ContactID	First Name	Last Name	Organization Name
1	RTM019	Jim	Curdy	
2	RTM020	Liz	Leitz	
3	RTM021	Mike	Martinez	
4	RTP001	Bruce	Frazier	
5	RTP002	Dick	Belsey	Physicians for Social Responsibility
6	RTP003	Paige	Knight	
7	RTP004	Katherine	Ransel	American Rivers
8	RTP005	Jeff	Fryer	
9	RTP006	Lupito	Flores	Save the Reach (a campaign of the Lower Columbia Basin Audubon Society)
10	RTP007	Michael	Dean	
11	RTP008	Paul	Ketcham	Audubon Society of Portland
12	RTP009	Barbara	Drageaux (spelled as Degrow in Transcript)	Women's International League for Peace and Freedom
13	RTP010	Lynn	Sims	
14	RTP011	Gretchen	Starke	Vancouver Audubon Society
15	RTP012	Jim	Baker	Sierra Club
16	RTP013	Greg	deBruler	
17	RTP014	Dirk	Dunning	
18	RTR001	Gene	Weisskopf	B Reactor Museum Association
19	RTR002	Lupito	Flores	Save the Reach (a campaign of the Lower Columbia Basin Audubon Society)
20	RTR003	Barry	Jacobson	Environment Information Network
21	RTR004	Scott	Woodward	Save the Reach
22	RTR005	Nat	Ballou	
23	RTR006	Bob	Wilson	Columbia River Conservation League
24	RTR007	Jim	Timmons	
25	RTR008	Victor	Moore	
26	RTR009	Bill	Kuhn	
27	RTR010	Jerry	Turnbaugh	
28	RTR011	Ray	Rose	
29	RTR012	Mike	Lilga	
30	RTR013	Dave	Terentieff	
31	RTR014	Madeline	Brown	
32	RTR015	Lyle	Wilhelm	B Reactor Museum Association
33	RTR016	Jack	Young	Washington Environmental Council
34	RTR017	Mildred	Walton	
35	RTR018	Al	Hageman	
36	RTR019	Dan	Landeen	
37	RTR020	Steven	Link	
38	RTR021	Rosy	Winters	
39	RTR022	Duane	Faletti	
40	RTR023	Jim	Dillman	
41	RTR024	Dennis	Kreid	
42	RTR025	Paula	Clark	

	ContactID	First Name	Last Name	Organization Name
1	RTR026	Dick	Watts	
2	RTR027	Rick	Leaumont	Lower Columbia Basin Audubon Society
3	RTS001	James	Pritchard	
4	RTS002	Charles	Fisk	Spokane Canoe and Kayak Club
5	RTS003	Harold	Heacock	
6	RTS004	Gerry	Pollet	Heart of America Northwest
7	RTS005	Bill	Johns	
8	RTS006	Nathaniel	Hammon	
9	RTS007	Steve	Bradburn	
10	RTS008	Bart	Haggin	
11	RTS009	Harvey	Morrison	
12	RTS010	John	Bentley	
13	RTS011	Buell Hollister		
14	RTS012	Frank	Yuse	Senior Legislative Council of Eastern Washington
15	RTS013	LeRoy	Eadie	
16	RTS014	Laura	Smith	The Nature Conservancy of Washington
17	RTS015	Rae	Hafer	
18	RTS016	Jim	Berry	
19	RTS017	Paul	Lindholdt	Upper Columbia River Group of the Sierra Club and the Eastern Environmental Student Group at Eastern Washington University (faculty)
20	RTS018	Laura	Ackerman	
21	RTS019	Lisa	Ramirez	The Lands Council
22	RTS020	Bonnie	Mager	Washington Environmental Council
23	RTS021	Greg	Rupert	
24	RTS022	Jeff	Hedge	Spokane Chapter, Physicians for Social Responsibility
25	RTS023	Julian	Powers	
26	RTS024	Lupito	Flores	Save the Reach
27	RTS025	Gerry	Pollet	Heart of America Northwest
28	RTS026	Chase	Davis	
29	STR0001	Robin P.	Bushore	
30	STR0002	Jeremy	Eubanks	
31	STR0003	Marie	Phillips	
32	STR0004	Terri	Abolins	
33	STR0005	Robert B.	Abrams	
34	STR0006	Diane	Ackerman	
35	STR0007	Diane	Ackerman	
36	STR0008	Scott	Ackerman	
37	STR0009	Scott	Ackerman	
38	STR0010	William	Adair	
39	STR0011	Scot	Adams	
40	STR0012	Clyde	Adkinson	
41	STR0013	Linda	Adkinson	
42	STR0014	Jason	Adler	
43	STR0015	Jason G.	Adler	
44	STR0016	Martha	Ahart	
45	STR0017	Paul	Ahart	
46	STR0018	Chris	Ahublade	
47	STR0019	Michael D.	Aiken	

	ContactID	First Name	Last Name	Organization Name
1	STR0020	John	Ainsworth	
2	STR0021	Muriel	Ainsworth	
3	STR0022	Alga	Alspaugh	
4	STR0023	Don	Alspaugh	
5	STR0024	Anselmo	Alvarado	
6	STR0025	Janelle	Amato	
7	STR0026	Lance	Amato	
8	STR0027	Diane	Anderson	
9	STR0028	Erik	Anderson	
10	STR0029	June E.	Anderson	
11	STR0030	Karl	Anderson	
12	STR0031	Martha Ellen	Anderson	
13	STR0032	Sharleen	Anderson	
14	STR0033	William	Applegate	
15	STR0034	Kevin E.	Ard	
16	STR0035	Sarah E. H.	Ard	
17	STR0036	E.V.	Armitage	
18	STR0037	Francine	Armstrong	
19	STR0038	James C.	Armstrong	
20	STR0039	Al	Arnold	
21	STR0040	Nancy	Arnold	
22	STR0041	Ellen	Arquesuella	
23	STR0042	Shelly	Asmus	
24	STR0043	Lynn	Atwood	
25	STR0044	Pauline A.	Avery	
26	STR0045	Kevin	Axt	
27	STR0046	Gaie	Baasch	
28	STR0047	John	Bacon	
29	STR0048	Theodore	Badami	
30	STR0049	Donald	Baer	
31	STR0050	Ellen Kohler	Baer	
32	STR0051	D'Arcy	Baker	
33	STR0052	Ginna	Baker	
34	STR0053	Robert A.	Baker	
35	STR0054	Ronald B.	Baker	
36	STR0055	J.E.	Baldi	
37	STR0056	June E.	Baldwin	
38	STR0057	Heather	Ballash	
39	STR0058	Elaine L.	Ballou	
40	STR0059	Nathan E.	Ballou	
41	STR0060	Louis	Barbour	
42	STR0061	Mary Lou	Barker	
43	STR0062	Theresa L.	Barnaby	
44	STR0063	Lawrence D.	Barneye	
45	STR0064	Susanne M.	Barr	
46	STR0065	Susan G.	Barwig	
47	STR0066	George	Bauer	
48	STR0067	Nathan	Bauman	
49	STR0068	Sherrie	Bauman	
50	STR0069	Diane	Bayley	

	ContactID	First Name	Last Name	Organization Name
1	STR0070	Suzanne	Beall	
2	STR0071	Joyce	Bean	
3	STR0072	Mickey	Beary	
4	STR0073	Juanita	Bee	
5	STR0074	Ann	Beier	
6	STR0075	Mike	Bell	
7	STR0076	Norm	Bell	
8	STR0077	Sheila Q.	Bennett	
9	STR0078	Bertha	Beno	
10	STR0079	Heidi	Berg	
11	STR0080	Betty	Bergdahl	
12	STR0081	Kathryn	Berry	
13	STR0082	Janet	Beuchler	
14	STR0083	Barbara R.	Beukelman	
15	STR0084	Bart	Bienz	
16	STR0085	Donald	Bihl	
17	STR0086	Steve	Birkinbine	
18	STR0087	Bob	Bixler	
19	STR0088	Jenny	Bixler	
20	STR0089	Janice L.	Black	
21	STR0090	Michael T.	Black	
22	STR0091	Sally	Blyckert	
23	STR0092	Cheryl	Bolin	
24	STR0093	J.E.	Bolin	
25	STR0094	Bruce B.	BonDurant	
26	STR0095	Jane	Borghese	
27	STR0096	Allen P.	Boston	
28	STR0097	Glendine	Boston	
29	STR0098	Donald H.	Boswell	
30	STR0099	Norma D.	Boswell	
31	STR0100	Jan	Bothke	
32	STR0101	Les	Bothke	
33	STR0102	Annette	Bouchey	
34	STR0103	Fay L.	Bowen	
35	STR0104	Sandra	Bowman	
36	STR0105	James	Boyd	
37	STR0106	Cheryl G.	Bradkin	
38	STR0107	William E.	Bradkin	
39	STR0108 - Number assigned in error; void.			
40	STR0109	Barb	Brady	
41	STR0110	Steve	Brady	
42	STR0111	Mark	Brain	
43	STR0112	Terry M.	Brain	
44	STR0113	Janelle	Braunwar	
45	STR0114	Edith	Breed	
46	STR0115	James	Breed	
47	STR0116	Michael H.	Breier	
48	STR0117	Tammy A.	Breier	
49	STR0118	John	Brimhall	
50	STR0119	Phyllis	Brimhall	

	ContactID	First Name	Last Name	Organization Name
1	STR0120	Aline	Brinkman	
2	STR0121	Loris	Brinkman	
3	STR0122	Louis	Brinkman	
4	STR0123	Alan Jay	Brothers	
5	STR0124	Joe	Brothers	
6	STR0125	Mary Lou	Brothers	
7	STR0126	Kristine R.	Brotherton	
8	STR0127	Katherine	Brouns	
9	STR0128	Richard	Brouns	
10	STR0129	Howard	Browsers	
11	STR0130	Don H.	Brown	
12	STR0131	Jackie	Brown	
13	STR0132	Madeleine	Brown	
14	STR0133	Michael	Brown	
15	STR0134	Marian E.	Bruno	
16	STR0135	Timothy A.	Bruno	
17	STR0136	Brian W.	Buche	
18	STR0137	Leah	Bucholz	
19	STR0138	Jean	Buck	
20	STR0139	Mark	Buehler	
21	STR0140	Donald	Burford	
22	STR0141	Hope	Burgess	
23	STR0142	Bill	Burreil	
24	STR0143	Karen E.	Byers	
25	STR0144	Polly	Cadd	
26	STR0145	Natalie	Cadoret	
27	STR0146	Alma	Cahn	
28	STR0147	Herbert	Cahn	
29	STR0148	Gloria	Caire	
30	STR0149	Allard	Calkins	
31	STR0150	Allard	Calkins	
32	STR0151	Marzrette S.	Calkins	
33	STR0152	Don	Camaioni	
34	STR0153	Kaye	Camaioni	
35	STR0154	Ann	Campbell	
36	STR0155	Thomas A.	Campbell	
37	STR0156	Sue J.	Cannard	
38	STR0157	Tim D.	Carl	
39	STR0158	Claudia	Carlson	
40	STR0159	Claudia J.	Carlson	
41	STR0160	Thomas J.	Carlson	
42	STR0161	Tom	Carlson	
43	STR0162	Michael G.	Carrigan	
44	STR0163	Phillip	Cathey	
45	STR0164	Dana K.	Catts	
46	STR0165	Bill	Chamberlain	
47	STR0166	Jan	Chamberlain	
48	STR0167	John H.	Chapman	
49	STR0168	John H.	Chapman	
50	STR0169	Jonathan	Chapman	

	ContactID	First Name	Last Name	Organization Name
1	STR0170	Cody	Chase	
2	STR0171	James C.	Chatters	
3	STR0172	Carla	Chiotti	
4	STR0173	Bryan	Christensen	
5	STR0174	John E.	Christenson	
6	STR0175	Donald H.	Christopherson	
7	STR0176	David E.	Clark	
8	STR0177	Gail Brusen	Clark	
9	STR0178	Harriet A.	Clark	
10	STR0179	James	Clark	
11	STR0180	Larry	Clark	
12	STR0181	Paula	Clark	
13	STR0182	Steven W.	Clark	
14	STR0183	Kerry	Cleavenger	
15	STR0184	Lynn	Cleavenger	
16	STR0185	Kathleen A.	Clough	
17	STR0186	Woodrow W.	Coder	
18	STR0187	Christopher	Coffin	
19	STR0188	Chris	Cole	
20	STR0189	Danielle	Coleman	
21	STR0190	Sue	Coleman	
22	STR0191	Tim	Coleman	
23	STR0192	Jack	Collins	
24	STR0193	Steve	Colwell	
25	STR0194	James	Conca	
26	STR0195	Irum	Conner	
27	STR0196	Kathryn M.	Conrad	
28	STR0197	Keith C.	Conrad	
29	STR0198	Lonnie	Cook	
30	STR0199	Abel A.	Cortina	
31	STR0200	Neal F.	Cother	
32	STR0201	Lester L.	Couchman	
33	STR0202	Wanda	Couchman	
34	STR0203	Orel	Courteau	
35	STR0204	Gilford	Crandall	
36	STR0205	Helen	Crandall	
37	STR0206	Andrew	Criddle	
38	STR0207	Jim	Criddle	
39	STR0208	Kathy	Criddle	
40	STR0209	Nick	Criddle	
41	STR0210	Tom	Criddle	
42	STR0211	Bob	Croft	
43	STR0212	Harold	Crose	
44	STR0213	Judy	Crose	
45	STR0214	Bill	Crowder	
46	STR0215	June	Crowder	
47	STR0216	Gary	Culbert	
48	STR0217	Sally	Culbert	
49	STR0218	Elizabeth	Cumiskey	
50	STR0219	James	Cumiskey	

	ContactID	First Name	Last Name	Organization Name
1	STR0220	Agnes M.	Cummings	
2	STR0221	Connie	Cummings	
3	STR0222	Matt	Cummings	
4	STR0223	Gary	Cummisk	
5	STR0224	Gia	Cummisk	
6	STR0225	H.D.	Curet	
7	STR0226	Cathie	Currie	
8	STR0227	Mike	Curtiss	
9	STR0228	Colbert E.	Cushing	
10	STR0229	Jacqueline A.	Cushing	
11	STR0230	Jasmine	Darnell	
12	STR0231	Delcie	Davis	
13	STR0232	Melissa Dawn	Davis	
14	STR0233	Michelle M.	Davis	
15	STR0234	O.J.	Davis	
16	STR0235	Murrel V.	Dawson	
17	STR0236	Victoria	Dawson	
18	STR0237	Elizabeth	de Beath	
19	STR0238	Laurene	Dean	
20	STR0239	Mike	Dec	
21	STR0240	John	Decker	
22	STR0241	Sue	Decker	
23	STR0242	Jim	Deeney	
24	STR0243	Eric	Degerman	
25	STR0244	Traci	Degerrman	
26	STR0245	Lee J.	Dehmer	
27	STR0246	Peggy J.	Dehmer	
28	STR0247	Guy	Devers	
29	STR0248	Harriet	DeWolfe	
30	STR0249	Russ	DeWolfe	
31	STR0250	Paul	Didzevekis	
32	STR0251	Judy	Dietert	
33	STR0252	Scott	Dietert	
34	STR0253	Elsie	Ditchfield	
35	STR0254	W. R.	Ditchfield	
36	STR0255	Kay	Divine	
37	STR0256	Kelly	Dix	
38	STR0257	Rebecca	Doescher	
39	STR0258	John	Donley	
40	STR0259	Bud A.	Doolittle	
41	STR0260	Llyn	Doremus	
42	STR0261	Carol W.	Doriss	
43	STR0262	Clinton P.	Doriss	
44	STR0263	Dorothy B.	Dory	
45	STR0264	John A.	Doughty	
46	STR0265	David	Dovlan	
47	STR0266	Roger	Dowabauer	
48	STR0267	Bill	Dozer	
49	STR0268	Lila	Dozer	
50	STR0269	Donald	Draham	

	ContactID	First Name	Last Name	Organization Name
1	STR0270	Laura	Drew	
2	STR0271	Laura	Drew	
3	STR0272	Marianne	Drussel	
4	STR0273	Carol	Dudick	
5	STR0274	James S.	Dukelow	
6	STR0275	Virgil L.	Dunn	
7	STR0276	Sheri	Duslar	
8	STR0277	Francis	Eager	
9	STR0278	George	Eason	
10	STR0279	Janet	Ebaugh	
11	STR0280	Nancy	Edgar	
12	STR0281	John P.	Edson	
13	STR0282	Barbara	Edunastor	
14	STR0283	Cheryl	Eiholzer	
15	STR0284	Sean	Eiholzer	
16	STR0285	Gary	Ellen	
17	STR0286	Zylda	Elliot	
18	STR0287	Anna Marie	Elliott	
19	STR0288	Deborah	Ellis	
20	STR0289	John C.	Ellis	
21	STR0290	Martha	Ellis	
22	STR0291	Steven R.	Ellis	
23	STR0292	Alice M.	Elshoff	
24	STR0293	Cal	Elshoff	
25	STR0294	Jennifer	Ely	
26	STR0295	Glen	Engel-Cox	
27	STR0296	Jill	Engel-Cox	
28	STR0297	Helen	Engle	
29	STR0298	Stan	Engle	
30	STR0299	Howard R.	Ennor	
31	STR0300	Lucile H.	Ennor	
32	STR0301	Susan K.	Ennor	
33	STR0302	Andrew	Erickson	
34	STR0303	Irene	Erickson	
35	STR0304	Roberta	Estes	
36	STR0305	James W.	Evans	
37	STR0306	R. Douglas	Evans	
38	STR0307	Calvin	Farris	
39	STR0308	Joy	Farris	
40	STR0309	Joy	Fay	
41	STR0310	Robert	Fay	
42	STR0311	Barbara	Fecht	
43	STR0312	Betty	Fecht	
44	STR0313	John	Fecht	
45	STR0314	Judy	Fecht	
46	STR0315	Karl	Fecht	
47	STR0316	Josh	Fed	
48	STR0317	Nancy	Felch	
49	STR0318	Alice C.	Fergus	
50	STR0319	Sharon	Ferguson	

	ContactID	First Name	Last Name	Organization Name
1	STR0320	Jeffery	Fernald	
2	STR0321	John	Ferrera	
3	STR0322	Betty L.	Fiene	
4	STR0323	Avid W.	Fischer	
5	STR0324	Lawrence	Fischer	
6	STR0325	Ruth	Fischer	
7	STR0326	Sara	Fluten	
8	STR0327	Tim	Fluten	
9	STR0328	Robert K.	Follett	
10	STR0329	Joseph H.	Foster	
11	STR0330	J.C.	Foust	
12	STR0331	George	Fox	
13	STR0332	Marlene	Fox	
14	STR0333	Floyd	Frankenfield	
15	STR0334	Mark K.	Frazer	
16	STR0335	Greg	Frederick	
17	STR0336	Scott	Freeman	
18	STR0337	Mildred	Freytag	
19	STR0338	Violet	Fruehling	
20	STR0339	William	Fruehling	
21	STR0340	Larry	Gadbois	
22	STR0341	J.B.	Gafford	
23	STR0342	Gary G.	Gagmon	
24	STR0343	Laura M.	Gagmon	
25	STR0344	Faith	Gaines	
26	STR0345	Donald A.	Galbreath	
27	STR0346	Donald S.	Galbreath	
28	STR0347	Evan D.	Galbreath	
29	STR0348	Heather	Galloway	
30	STR0349	Barbara	Gamber	
31	STR0350	Herbert	Gamber	
32	STR0351	Sue	Gano	
33	STR0352	Debbie	Garland	
34	STR0353	Mary	Garrard	
35	STR0354	David	Geist	
36	STR0355	Robert A.	Gerhard	
37	STR0356	Grita L.	Gidner	
38	STR0357	Richard V.	Gidner	
39	STR0358	Lyons H.	Giese	
40	STR0359	Ruth A.	Giese	
41	STR0360	Jennie	Gilbert	
42	STR0361	Kathleen	Gilligan	
43	STR0362	Chris A.	Gleason	
44	STR0363	Daniel S.	Gleason	
45	STR0364	Marion	Goheen	
46	STR0365	Milton	Goheen	
47	STR0366	Jessie	Gordon	
48	STR0367	Jessie	Gordon	
49	STR0368	Ray	Gordon	
50	STR0369	Ray	Gordon	

	ContactID	First Name	Last Name	Organization Name
1	STR0370	Bryan	Gore	
2	STR0371	Evelyn	Gore	
3	STR0372	Carl	Grando	
4	STR0373	Cliff	Grando	
5	STR0374	Diana	Grando	
6	STR0375	Sharm	Grant	
7	STR0376	Sharon L.	Grant	
8	STR0377	George E.	Greger	
9	STR0378	Greg	Greger	
10	STR0379	Margaret	Greger	
11	STR0380	Beverly	Griswold	
12	STR0381	Darwin	Griswold	
13	STR0382	Shirley	Groner	
14	STR0383	J.E.	Guenther	
15	STR0384	Jean E.	Guenther	
16	STR0385	Dale	Gulley	
17	STR0386	Fannie	Gunn	
18	STR0387	Glenn	Gunn	
19	STR0388	Mary Purton	Gustavson	
20	STR0389	Martha H.	Hagan	
21	STR0390	A.K.	Hageman	
22	STR0391	Ann K.	Hageman	
23	STR0392	Bob	Haggard	
24	STR0393	Rhonda	Haggard	
25	STR0394	Denise	Hagood	
26	STR0395	Katie	Hahn	
27	STR0396	Keely	Hahn	
28	STR0397	Kyle	Hahn	
29	STR0398	Burke	Hales	
30	STR0399	Jeremy M.	Hales	
31	STR0400	Kathryn L.	Hales	
32	STR0401	Kelly	Hales	
33	STR0402	John R.	Hall	
34	STR0403	Velma	Hall	
35	STR0404	Jon	Halloway	
36	STR0405	June	Hamilton	
37	STR0406	June W.	Hamilton	
38	STR0407	Wayne	Hamilton	
39	STR0408	Robert	Hancock	
40	STR0409	Jessica	Handy	
41	STR0410	Gordon L.	Hanson	
42	STR0411	Jerry	Hanson	
43	STR0412	Michele	Hanson	
44	STR0413	David	Harbinson	
45	STR0414	E. Neil	Harbinson	
46	STR0415	Mary	Harbinson	
47	STR0416	Frank W.	Hardy	
48	STR0417	Janet	Hardy	
49	STR0418	Mary Ann	Harman	
50	STR0419	H.K.	Harmon	

	ContactID	First Name	Last Name	Organization Name
1	STR0420	Roy	Harmon	
2	STR0421	Sonja P.	Harmon	
3	STR0422	Kathy	Harrington	
4	STR0423	Katherine	Hartley	
5	STR0424	Mary B.	Hartman	
6	STR0425	Ella	Hartson	
7	STR0426	David J.	Hartwig	
8	STR0427	David R.	Harty	
9	STR0428	Deana	Harty	
10	STR0429	Virginia G.	Hartz	
11	STR0430	Barbara	Harville	
12	STR0431	Nancy Lee	Hassig	
13	STR0432	Leona	Hassing	
14	STR0433	Heidi	Hayes	
15	STR0434	George O.	Hayner	
16	STR0435	Patricia	Heasler	
17	STR0436	Patricia	Heasler	
18	STR0437	Sam	Hecht	
19	STR0438	Douglas O.	Heiken	
20	STR0439	Christy	Hembree	
21	STR0440	Richard G.	Henderson	
22	STR0441	Marian	Hennings	
23	STR0442	Dan	Hermann	
24	STR0443	Nancy J.	Hess	
25	STR0444	Keith R.	Hicks	
26	STR0445	Lidabeth	Hicks	
27	STR0446	Mark D.	Higbee	
28	STR0447	Donald J.	Hill	
29	STR0448	Linda	Hill	
30	STR0449	Saundra L.	Hill	
31	STR0450	Virginia R.	Hill	
32	STR0451	Grace	Hilliard	
33	STR0452	Chester A.	Hinman	
34	STR0453	Karen A.	Hinman	
35	STR0454	Jeene M.	Hobbs	
36	STR0455	Bennie	Hodges	
37	STR0456	Kathryn S.	Hodges	
38	STR0457	Ed	Hoey	
39	STR0458	Carolyn	Hoey	
40	STR0459	Virginia	Hoffman	
41	STR0460	Winona	Hofstetter	
42	STR0461	Harold F.	Hogue	
43	STR0462	Diana Joan	Holford	
44	STR0463	Bruce	Holmberg	
45	STR0464	Joe	Holt	
46	STR0465	Dot	Honaker	
47	STR0466	Mark	Hood	
48	STR0467	Steve	Hope	
49	STR0468	Alan	Hosler	
50	STR0469	Susan	Hottell	

	ContactID	First Name	Last Name	Organization Name
1	STR0470	Edward J.	Hough	
2	STR0471	Marge E.	Hough	
3	STR0472	Ray	Houle	
4	STR0473	Ann	House	
5	STR0474	Howard	House	
6	STR0475	Chris	Howard	
7	STR0476	William A.	Howard	
8	STR0477	Janelle	Howell	
9	STR0478	B.J.	Howerton	
10	STR0479	Mark	Hoza	
11	STR0480	Kent C.	Hubbard	
12	STR0481	Kurt	Hubele	
13	STR0482	Laura	Hubele	
14	STR0483	Joy	Huber	
15	STR0484	Jim	Huckaby	
16	STR0485	Jimmy	Huckaby	
17	STR0486	Sammy	Huckaby	
18	STR0487	Christy	Huff	
19	STR0488	Alan	Hunt	
20	STR0489	Charles	Hunt	
21	STR0490	Diane	Hunt	
22	STR0491	Sue	Hunt	
23	STR0492	Tim	Hunt	
24	STR0493	Jack	Hurning	
25	STR0494	Holly A.	Hustell	
26	STR0495	Holly A.	Hustell	
27	STR0496	Laurie	Hutton	
28	STR0497	J. Gilbert	Hwang	
29	STR0498	Jim	Ingram	
30	STR0499	Phyllis	Ingram	
31	STR0500	Jan R.	Jackson	
32	STR0501	Lawrence R.	Jackson	
33	STR0502	Gerald	Jacobsen	
34	STR0503	Jean	Jacobsen	
35	STR0504	Baruch S.	Jacobson	
36	STR0505	Jean	Jacohy	
37	STR0506	Earl	Jageman	
38	STR0507	Beverly B.	Jennings	
39	STR0508	Hugh A.	Jennings	
40	STR0509	Gary	Jensen	
41	STR0510	Gene	Jensen	
42	STR0511	Leslie	Jensen	
43	STR0512	Ann	Johndro-Collins	
44	STR0513	Ben	Johnson	
45	STR0514	Brian	Johnson	
46	STR0515	E.T.	Johnson	
47	STR0516	Linda G.	Johnson	
48	STR0517	Patricia B.	Johnson	
49	STR0518	Rachel	Johnson	
50	STR0519	Robert	Johnson	

	ContactID	First Name	Last Name	Organization Name
1	STR0520	Sam	Johnson	
2	STR0521	W.M.T.	Johnson	
3	STR0522	Dave	Jones	
4	STR0523	Erin C.	Jones	
5	STR0524	Helen A.	Jones	
6	STR0525	K.C.	Jones	
7	STR0526	Loring M.	Jones	
8	STR0527	Mindy	Jones	
9	STR0528	Rene L.	Jones	
10	STR0529	Vicki	Jones	
11	STR0530	Ella J.	Jordan	
12	STR0531	Joe W.	Jordan	
13	STR0532	Martha	Jordan	
14	STR0533	Eli	Kaczynski	
15	STR0534	Pat	Kaelfer	
16	STR0535	Lynn	Kearns	
17	STR0536	Paul	Kearns	
18	STR0537	Jeff	Keas	
19	STR0538	Shandra	Keas	
20	STR0539	James R.	Keene	
21	STR0540	Charles R.	Kelly	
22	STR0541	David S.	Kelly	
23	STR0542	Maia	Kelly	
24	STR0543	Maia	Kelly	
25	STR0544	Marjarie Page	Kelly	
26	STR0545	Vincent P.	Kelly	
27	STR0546	Kathleen A.	Kent	
28	STR0547	Dennis P.	Kerwick	
29	STR0548	Norine V.	Kerwick	
30	STR0549	Helina	Kikwood	
31	STR0550	Douglas C.	Kilian	
32	STR0551	Susan	King	
33	STR0552	Dan	Kinney	
34	STR0553	Eileen	Kinney	
35	STR0554	Duncan P.	Kirk	
36	STR0555	Duncan Pryce	Kirk	
37	STR0556	Jane R.	Kirkendall	
38	STR0557	Tan	Kitan	
39	STR0558	Charmagne	Klein	
40	STR0559	Robert	Klein	
41	STR0560	Tom	Klein	
42	STR0561	William	Kleindl	
43	STR0562	Harry	Kleine	
44	STR0563	Sandra	Klippert	
45	STR0564	Tim	Klundt	
46	STR0565	Suzanne M.	Knapp	
47	STR0566	Craig	Knight	
48	STR0567	RaNae	Knight	
49	STR0568	Don	Knoke	
50	STR0569	Don F.	Knoke	

	ContactID	First Name	Last Name	Organization Name
1	STR0570	Ruth	Knoke	
2	STR0571	Ruth G.	Knoke	
3	STR0572	Terri	Knoke	
4	STR0573	Gordon Kenneth	Knutson	
5	STR0574	Kathryn	Knutson	
6	STR0575	Paula	Kofoed	
7	STR0576	Raymond	Kofoed	
8	STR0577	Carloyn J.	Kohler	
9	STR0578	Arton J.	Koll	
10	STR0579	Martha	Kongsgaard	
11	STR0580	Dennis	Koselke	
12	STR0581	Dennis	Koselke	
13	STR0582	Toni	Koselke	
14	STR0583	Toni	Koselke	
15	STR0584	Charles	Kovalchick	
16	STR0585	Maxine	Kovalchick	
17	STR0586	Casey	Kowrach	
18	STR0587	J.E.	Krasicek	
19	STR0588	Dennis	Kreid	
20	STR0589	Susan	Kreid	
21	STR0590	Teresa	Krekel	
22	STR0591	Jean	Kreswetter	
23	STR0592	Julia W.	Krick	
24	STR0593	Marge	Kriete	
25	STR0594	Robin	Krull	
26	STR0595	Jennifer	Krus	
27	STR0596	Koren Ko	Krus	
28	STR0597	Rob	Krus	
29	STR0598	Ernest R.	Kuhn	
30	STR0599	Guadalupe G.	Kuhn	
31	STR0600	Stan	Kuick	
32	STR0601	Ken	Kuklinski	
33	STR0602	Sarah	Kuklinski	
34	STR0603	Teresa	Kuklinski	
35	STR0604	A. J.	Kuntz	
36	STR0605	Tapio	Kuusinen	
37	STR0606	Steve	Lacey	
38	STR0607	Anna B.	Laddlear	
39	STR0608	Nancy	Ladenberger	
40	STR0609	Nancy	LaFramboise	
41	STR0610	Bruce J.	LaGaser	
42	STR0611	Lewis H.	Lamar	
43	STR0612	Edwin D.	Lamb	
44	STR0613	Phyllis J.	Lamb	
45	STR0614	Edwin	Lamb, Jr.	
46	STR0615	Darwin	Lambier	
47	STR0616	Lois M.	Lambier	
48	STR0617	Anna B.	LaMear	
49	STR0618	Buford	Landon	
50	STR0619	Isla	Landon	

	ContactID	First Name	Last Name	Organization Name
1	STR0620	Lu	Langstaff	
2	STR0621	Lewis E.	Larsen	
3	STR0622	Sally E.	Larsen	
4	STR0623	Jay	Lavender	
5	STR0624	Kathy	Lavender	
6	STR0625	Teresa	Lavender	
7	STR0626	Craig	Lawrence	
8	STR0627	Peggy L.	Leanderson	
9	STR0628	Richard J.	Leaumont	
10	STR0629	Tralice B.	Leaumont	
11	STR0630	Irene	Lechelt	
12	STR0631	Irene J.	Lechett	
13	STR0632	Cathy	LeCompte	
14	STR0633	Glen	Ledgerwood	
15	STR0634	Lynn M.	Ledgerwood	
16	STR0635	Nerissa	Ledgerwood	
17	STR0636	Suzanne	Leggitt	
18	STR0637	Julie	Leigh	
19	STR0638	Paul	Lemargie	
20	STR0639	Thea	Levkovik	
21	STR0640	Peter V.	Levque	
22	STR0641	Albert M.	Liebetrau	
23	STR0642	Suzanne F.	Liebetrau	
24	STR0643	Mary	Ligla	
25	STR0644	Mike	Ligla	
26	STR0645	Kevin A.	Lindsey	
27	STR0646	Paul	Linholdt	
28	STR0647	Amanda	Lipshetz	
29	STR0648	Debra	Little	
30	STR0649	Jon	Little	
31	STR0650	Kevin P.	Littleton	
32	STR0651	Dale M.	Litzenberger	
33	STR0652	R.L.	Litzenberger	
34	STR0653	Cheryl	Livesque	
35	STR0654	Jerry	Livingston	
36	STR0655	Richard C.	Locke	
37	STR0656	Bill	Loekel	
38	STR0657	Merry A.	Loew	
39	STR0658	Eileen	Loewenstein	
40	STR0659	Howard	Loewenstein	
41	STR0660	Claudia	Lofstrom	
42	STR0661	Richard	Lofstrom	
43	STR0662	Suzanne Marie	Loftus	
44	STR0663	Lynn	Logman	
45	STR0664	Paul	Logman	
46	STR0665	John W.	Long	
47	STR0666	John W.	Long	
48	STR0667	Sharon E.	Long	
49	STR0668	Sharon E.	Long	
50	STR0669	Julie	Longenecker	

	ContactID	First Name	Last Name	Organization Name
1	STR0670	John	Lowe	
2	STR0671	Joye	Lucas	
3	STR0672	Christy	Lykman	
4	STR0673	Greg	Lykman	
5	STR0674	Judith A.	Lyon	
6	STR0675	Matthew	Lyon	
7	STR0676	Bill	Lyons	
8	STR0677	Michael	Mann	
9	STR0678	Carl D.	Manship	
10	STR0679	Tammi J.	Manship	
11	STR0680	Michael W.	Marley	
12	STR0681	Charles	Marsh	
13	STR0682	Kay	Marsh	
14	STR0683	Margaret	Marsh	
15	STR0684	Dawn	Marstie	
16	STR0685	Anne	Martin	
17	STR0686	James A.	Martin	
18	STR0687	Heather J.	Mason	
19	STR0688	Mike	Matkowski	
20	STR0689	Lucille M.	Mattis	
21	STR0690	Leona	Mattison	
22	STR0691	John J.	Mauch	
23	STR0692	George A.	McAlpine	
24	STR0693	Terri	McCarthy	
25	STR0694	Jack A.	McCleary	
26	STR0695	Don	McClelland	
27	STR0696	Cheryl	McCollum	
28	STR0697	Jay	McConnaughey	
29	STR0698	Jim	McCracken	
30	STR0699	Portia	McCracken	
31	STR0700	Ken	McCrary	
32	STR0701	Susan	McCrary	
33	STR0702	Eric	McCrea	
34	STR0703	Mickey	McGuire	
35	STR0704	John	McIntosh	
36	STR0705	Linda	McIntosh	
37	STR0706	Patricia	McKay	
38	STR0707	Mary Ann	McKinney	
39	STR0708	John E.	McInain	
40	STR0709	Brenda	McMurray	
41	STR0710	Richard	McNeely	
42	STR0711	Beulah M.	McQualheim	
43	STR0712	Carl R.	McQualheim	
44	STR0713	Maureen	McQuerry	
45	STR0714	Bruce	McVeety	
46	STR0715	Irene	McVeety	
47	STR0716	Mark Edward	Mease	
48	STR0717	J.R.	Mecham	
49	STR0718	Anne E.	Medford	
50	STR0719	Dana A.	Meloy	

	ContactID	First Name	Last Name	Organization Name
1	STR0720	Nina	Menard	
2	STR0721	Chris	Mercer	
3	STR0722	Amanda	Meredith	
4	STR0723	Carol J.	Merrick	
5	STR0724	Paula D.	Mertz	
6	STR0725	Charles R.	Meyer	
7	STR0726	Gary	Middleton	
8	STR0727	Robert N.	Millelstaedt	
9	STR0728	Alfred	Miller	
10	STR0729	Bev	Miller	
11	STR0730	Brian	Miller	
12	STR0731	Fred	Miller	
13	STR0732	Inez	Miller	
14	STR0733	James A.	Miller	
15	STR0734	Julie	Miller	
16	STR0735	Michael	Miller	
17	STR0736	Sandra	Millspaugh	
18	STR0737	Dorothy S.	Minor	
19	STR0738	James E.	Minor	
20	STR0739	James E.	Minor	
21	STR0740	Jane	Mitchell	
22	STR0741	Matt	Mitchell	
23	STR0742	Mike	Mitchell	
24	STR0743	Mildred M.	Mitchell	
25	STR0744	Tim	Mitchell	
26	STR0745	Robert N.	Mittelstaedt	
27	STR0746	James W.	Mock	
28	STR0747	Scott	Monds	
29	STR0748	Ray	Moog	
30	STR0749	Mark W.	Moon	
31	STR0750	Sheila	Moon	
32	STR0751	Stan	Moon	
33	STR0752	Elaine M.	Moore	
34	STR0753	Gary D.	Moore	Moore Farms
35	STR0754	Paul H.	Moore	
36	STR0755	Robert Lee	Moore	
37	STR0756	Patricia	Morgan	
38	STR0757	Thomas	Morgan	
39	STR0758	Al	Morgenthaler	
40	STR0759	Nancy	Morgenthaler	
41	STR0760	Kathleen S.	Moroney	
42	STR0761	John D.	Moroney III	
43	STR0762	Dan	Morris	
44	STR0763	Shirley M.	Morton	
45	STR0764	Kathryn	Moss	
46	STR0765	Larry	Moss	
47	STR0766	Kim	Motyka	Motyka Fish N Post
48	STR0767	P.J.	Motyka	Motyka Fish N Post
49	STR0768	Lolian	Moy	
50	STR0769	Gary	Moyer	

	ContactID	First Name	Last Name	Organization Name
1	STR0770	Sue	Moyer	
2	STR0771	Don H.	Mucie	
3	STR0772	Nancy	Mulderig	
4	STR0773	O. Dennis	Mullen	
5	STR0774	Christopher	Murray	
6	STR0775	Nancy B.	Murray	
7	STR0776	Shirley	Muse	Blue Mountain Audubon Society
8	STR0777	David A.	Myers	Richland Rod and Gun Club
9	STR0778	Alexander M.	Nazarali	
10	STR0779	Robb	Nehl	
11	STR0780	Eric	Nelson	
12	STR0781	Lonzy	Nelson	
13	STR0782	Susan	Nelson	
14	STR0783	Joe	Nevius	
15	STR0784	Karen	Nevius	
16	STR0785	Barbara	New	
17	STR0786	Kenneth	New	
18	STR0787	Karon	Newhouse	
19	STR0788	Keith	Newhouse	
20	STR0789	Theron	Newhouse	
21	STR0790	John	Nicholas	
22	STR0791	Pamela	Nicklas	
23	STR0792	Richard	Nicklas	
24	STR0793	Kai	Nielsen	
25	STR0794	Dean	Noland	
26	STR0795	Dean	Noland	
27	STR0796	Walter	Norst	Rivers Council of Washington
28	STR0797	Cort	Northrop	
29	STR0798	Johanna	Norton	
30	STR0799	Robert	Norton	
31	STR0800	Tom R.	Norton	Morrison Construction Services, Inc.
32	STR0801	Tommy R.	Norton	
33	STR0802	Mary	Nowakowski	
34	STR0803	R.F.	Nowakowski	
35	STR0804	Jean	Nualaysen	
36	STR0805	Denise	Ofsthun	
37	STR0806	Neil	Ofsthun	
38	STR0807	Sharon	Ofsthun	
39	STR0808	Todd	Ofsthun	
40	STR0809	Alexandra	Olson	
41	STR0810	Caprice	Olson	
42	STR0811	Gary R.	Olson	
43	STR0812	Gayle A.	Orner	
44	STR0813	Terri	Orniston	
45	STR0814	Doris L.	Osborne	Richland Federal Women's Club
46	STR0815	Ann C.	Ott	
47	STR0816	Gregory N.	Page	
48	STR0817	Donna	Pagliari	
49	STR0818	Jim	Pagliari	
50	STR0819	Sheryl	Pagliari	

	ContactID	First Name	Last Name	Organization Name
1	STR0820	Douglas	Palenshus	
2	STR0821	Marie A.	Pallesen	
3	STR0822	Bruce	Palmer	
4	STR0823	Dan	Paquette	Wenatchee Valley Fly Fishers
5	STR0824	John D.	Parker	
6	STR0825	Pat	Parker	
7	STR0826	Barbara A.	Parkhurst	
8	STR0827	Clem W.	Parkhurst	
9	STR0828	Georgeia L.	Patterson	
10	STR0829	Lois	Paul	
11	STR0830	Lois	Paul-Brothers	
12	STR0831	Dennis	Paulson	
13	STR0832	Ian	Pengelly	
14	STR0833	Katherine	Pengelly	
15	STR0834	William T.	Pennell	
16	STR0835	Carol	Perdue	
17	STR0836	Jim	Perdue	
18	STR0837	Jack W.	Perl	
19	STR0838	Jane R.	Perry	
20	STR0839	Timothy K.	Perttula	
21	STR0840	Carl	Peterson	
22	STR0841	Chris	Peterson	Seattle Audubon Society
23	STR0842	Jim	Peterson	
24	STR0843	Ken	Peterson	
25	STR0844	Marjorie Maris	Peterson	
26	STR0845	Mike	Peterson	
27	STR0846	Robin	Peterson	
28	STR0847	Roy S.	Peterson	
29	STR0848	Scott W.	Peterson	
30	STR0849	Todd	Peterson	
31	STR0850	Travis D.	Peterson	
32	STR0851	George R.	Petrina	
33	STR0852	Leslie	Pettyjohn	
34	STR0853	Kenneth C.	Pewitt	
35	STR0854	Jeffrey	Peyton	
36	STR0855	Marie	Phillyis	Richland Federal Women's Club
37	STR0856	Jack	Pickard	Richland Rod and Gun Club
38	STR0857	Gary R.	Pickelsimer	
39	STR0858	Wendy E.	Pickelsimer	
40	STR0859	Denett	Pickett	
41	STR0860	Robert D.	Pierce	
42	STR0861	Robert D.	Pierce	
43	STR0862	Laurel	Piippo	
44	STR0863	T.W.	Piippo	
45	STR0864	Vikki A.	Piippo	
46	STR0865	Chandra	Plastino	
47	STR0866	Gabriel	Plastino	
48	STR0867	Arthur D.	Poor	
49	STR0868	Dennis	Poor	
50	STR0869	Dora	Poor	

	ContactID	First Name	Last Name	Organization Name
1	STR0870	Irene	Potter	
2	STR0871	Esther	Powell	
3	STR0872	Lyman A.	Powell	
4	STR0873	Frank	Powley	
5	STR0874	Betsy	Priddy	
6	STR0875	G.R.	Pridey, Jr.	
7	STR0876	Thomas	Pringle	
8	STR0877	Harwood	Pumrox	
9	STR0878	Mark	Purcell	
10	STR0879	Thomas A.	Putnam	
11	STR0880	Carol B.	Raherts	Richland Federated Woman's Club of the General Federation of Woman's Clubs, International
12	STR0881	Larry	Raklios	
13	STR0882	Fred W.	Rale	Idaho Conservation League
14	STR0883	Joyce Gale	Ramas	
15	STR0884	Al	Ramos	
16	STR0885	Georgia H.	Ramsey	
17	STR0886	Robert W.	Ramsey	
18	STR0887	Lon E.	Raney	
19	STR0888	Mary	Rasmusson	
20	STR0889	Becky	Rausch	
21	STR0890	Cindy	Ray	
22	STR0891	Tim	Ray	
23	STR0892	Susan	Redfern	
24	STR0893	Angela	Reed	
25	STR0894	Scott	Reed	
26	STR0895	Paul	Reitsma	
27	STR0896	Richard	Rhodes	
28	STR0897	Bernice	Rhymer	Richland Federal Women's Club
29	STR0898	Bernice	Rhyneer	
30	STR0899	Sam	Rhyneer	
31	STR0900	Metty C.	Rich	
32	STR0901	Steve	Richardson	
33	STR0902	Ann	Roberts	
34	STR0903	Gary	Roberts	
35	STR0904	Bill	Robinson	Trout Unlimited
36	STR0905	Marian Mae	Robison	
37	STR0906	Diane M.	Robles	
38	STR0907	Dennis K.	Rockwell	
39	STR0908	Glenda S.	Rockwell	
40	STR0909	Marcus	Roening	Tahoma Audubon Society
41	STR0910	Joel	Rogo	
42	STR0911	Mary J.	Roherbacher	
43	STR0912	Bill J.	Rokkan	
44	STR0913	Ellen E.	Rokkan	
45	STR0914	Robert A.	Romine	
46	STR0915	Amber	Ronning	
47	STR0916	Del	Rood	
48	STR0917	Phyllis	Rood	
49	STR0918	Elsa	Rose	
50	STR0919	Ray	Rose	

	ContactID	First Name	Last Name	Organization Name
1	STR0920	Helen	Ross	Seattle Audubon Society
2	STR0921	Rocky	Ross	
3	STR0922	Lee H.	Rosson	
4	STR0923	Mary Lou	Rosson	
5	STR0924	Dorothy J.	Rothrock	
6	STR0925	Gayle	Rothrock	
7	STR0926	Grace R.	Rowan	
8	STR0927	J. Donald	Rude	
9	STR0928	Olive	Rude	
10	STR0929	Virginia S.	Rulan	
11	STR0930	Carole A.	Rummel	
12	STR0931	Karl R.	Rummel	
13	STR0932	Tom	Rus	
14	STR0933	Barbara	Rush	
15	STR0934	Sandra	Russell	
16	STR0935	Carol	Rutte	
17	STR0936	Joseph W.	Rutte	
18	STR0937	Edith F.	Ryan	
19	STR0938	Maurine	Ryan	
20	STR0939	W.J.	Ryan	
21	STR0940	Edward	Rykiel	
22	STR0941	Frances	Rykiel	
23	STR0942	Mike	Salisbury	
24	STR0943	Sheila	Sauer	
25	STR0944	A.W.	Sawyer	
26	STR0945	Kristina	Sawyer	Black Hills Audubon Society
27	STR0946	Rebecca	Sawyer	
28	STR0947	Ron E.	Sawyer	
29	STR0948	Joan M.	Schappel	
30	STR0949	Robert E.	Schappel	
31	STR0950	Kay	Scheidegger	
32	STR0951	Galen	Schoental	Vancouver Audubon Society (Washington)
33	STR0952	Ethan	Schrank	
34	STR0953	Ralf	Schuhmann	
35	STR0954	Sabine	Schuhmann	
36	STR0955	Bernadine M.	Scott	Richland Federal Women's Club
37	STR0956	Frank	Sears	North Cascades Audubon Society
38	STR0957	Steve	Seeman	
39	STR0958	Enid	Seibel	
40	STR0959	Ralph	Seibel	
41	STR0960	Dennis	Sexton	
42	STR0961	Timothy J.	Shaw	
43	STR0962	Jean	Shawley	
44	STR0963	Leigh	Sherman	
45	STR0964	Raleigh	Sherman	
46	STR0965	Joan S.	Sherwood	
47	STR0966	M.D.	Shultz	
48	STR0967	James A.	Shurts	
49	STR0968	Levon M.	Silver	
50	STR0969	David	Simmons	
51	STR0970	Sally	Simmons	
52	STR0971	Ed	Simonen	
53	STR0972	Judy	Simonen	
54	STR0973	Brian D.	Skeels	

	ContactID	First Name	Last Name	Organization Name
1	STR0974	Al	Skinnel	Morrison Construction Services, Inc.
2	STR0975	Susan	Skubinna	
3	STR0976	Anita H.	Smith	
4	STR0977	Annette	Smith	
5	STR0978	Avlin E.	Smith	
6	STR0979	Brian W.	Smith	
7	STR0980	Cheryl Y.	Smith	
8	STR0981	Clay	Smith	
9	STR0982	Cliff	Smith	
10	STR0983	Clifford E.	Smith	
11	STR0984	Helen	Smith	
12	STR0985	Joycelyn	Smith	
13	STR0986	Lannie	Smith	
14	STR0987	Marlet K.	Smith	
15	STR0988	Mary Ann	Smith	
16	STR0989	Rollin	Smith	
17	STR0990	Lisa A.	Smyser	
18	STR0991	Rex A.	Smyser	
19	STR0992	Bettie	Soden	
20	STR0993	Mitch	Sonchotena	Idaho Steelhead and Salmon Unlimited
21	STR0994	Jack	Sonnichsen	
22	STR0995	Jennifer	Sonnichsen	
23	STR0996	Shirley	Sonnichsen	
24	STR0997	Gary	Spaulding	
25	STR0998	Renee	Spaulding	
26	STR0999	Merrill H.	Spence	
27	STR1000	William C.	Spence	
28	STR1001	John A.	Stanley	
29	STR1002	Blythe C.	Stanton	
30	STR1003	Edward B.	Stanton	
31	STR1004	Darby	Stapp	
32	STR1005	Gretchen	Stearns	Vancouver Audubon Society
33	STR1006	Arlene	Stebbins	
34	STR1007	William	Stebbins	
35	STR1008	Marvin D.	Steel	
36	STR1009	Brian	Steele	
37	STR1010	Keb	Steichen	
38	STR1011	Susan M.	Steinle	
39	STR1012	Monika	Stenzhorn	
40	STR1013	Andy	Stepniewski	
41	STR1014	Shannon	Stevens	
42	STR1015	Todd	Stevens	
43	STR1016	Jan	Stiggers	
44	STR1017	Keith	Stiggers	
45	STR1018	Carrie	Stillwell	The Oregon Natural Desert Association
46	STR1019	Wilbert A.	Stipe	
47	STR1020	Alex	Stone	
48	STR1021	Laura	Stone	
49	STR1022	Robert S.	Strebin	
50	STR1023	Mark S.	Stricker	
51	STR1024	Janet	Suess-Pierce	
52	STR1025	Julie	Suess-Pierce	
53	STR1026	Johanes H.	Sukanto	
54	STR1027	Earlene	Sullivan	

	ContactID	First Name	Last Name	Organization Name
1	STR1028	Earlene	Sullivan	
2	STR1029	Jeff	Sullivan	
3	STR1030	Ron	Sullivan	
4	STR1031	Rose	Sullivan	
5	STR1032	Ryan	Sullivan	
6	STR1033	Amy	Sutherland	
7	STR1034	Michael	Sutherland	
8	STR1035	Rhonda Jane	Swan	
9	STR1036	Karen	Swart	
10	STR1037	Will	Swarts	
11	STR1038	Judy	Sweeney	
12	STR1039	Paul	Swenson	
13	STR1040	Richard L.	Tachell	
14	STR1041	Charlotte	Tadlock	
15	STR1042	Joanne	Tancrei	
16	STR1043	Marie	Tardiff	
17	STR1044	Andrew	Taylor	
18	STR1045	Bonnie	Taylor	
19	STR1046	Roni	Teague	
20	STR1047	Bruce E.	Teeple	
21	STR1048	Delia P.	Teeple	
22	STR1049	Betty	Tegner	
23	STR1050	Andrew M.	Templeton	
24	STR1051	Muriel	Templeton	
25	STR1052	William	Templeton	
26	STR1053	Kenneth C.	Terrill	
27	STR1054	Ava	Thacker	
28	STR1055	Cal	Thacker	
29	STR1056	Julie	Theasher	
30	STR1057	Randy	Theime	The Inter-Mountain Alpine Club of Richland, Washington
31	STR1058	Jim	Thielman	
32	STR1059	Pat	Thielman	
33	STR1060	Alta P.	Thomas	
34	STR1061	Sheryl D.	Thomas	
35	STR1062	Vivian W.	Thomas	
36	STR1063	Sonia	Thomas-Youngs	
37	STR1064	K. Michael	Thompson	
38	STR1065	M. Jean	Thompson	
39	STR1066	Steven I.	Thompson	
40	STR1067	John	Thorp	
41	STR1068	Lola	Thorp	
42	STR1069	Steve	Tillman	Morrison Construction Services, Inc.
43	STR1070	Maurice E.	Tilton	
44	STR1071	Irwin G.	Toler	
45	STR1072	Esther	Tomlinson	
46	STR1073	Joan I.	Tracy	
47	STR1074	Keith	Tracy	
48	STR1075	Robert K.	Tracy	
49	STR1076	Dorothy P.	Turete	
50	STR1077	Robert B.	Turete	
51	STR1078	Bruce	Tuttle	
52	STR1079	Cathy	Tuttle	
53	STR1080	Robert A.	Underwood	Blue Heron Photoworks

	ContactID	First Name	Last Name	Organization Name
1	STR1081	Laurie	Vaellancourt	
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3	STR1083	Marla	van Heel	
4	STR1084	Dallas	Van Horn	
5	STR1085	Teresa	Van Horn	
6	STR1086	Bill	Van Winkle	
7	STR1087	Anthony	VanGessel	
8	STR1088	Susan	Varnum	
9	STR1089	Jon A.	Wagner	
10	STR1090	Karen	Wahl	
11	STR1091	Robert E.	Wahl	
12	STR1092	Anne P.	Wallace	
13	STR1093	Richard W.	Wallace	
14	STR1094	T.R.G.	Walsh	
15	STR1095	Todd	Walsh	
16	STR1096	Betty	Walton	
17	STR1097	Jim	Walton	
18	STR1098	John G.	Walton	
19	STR1099	Mildred L.	Walton	
20	STR1100	Michael A.	Ward	
21	STR1101	Randall G.	Ward	
22	STR1102	Gergory T.	Warner	
23	STR1103	Teri A.	Warner	
24	STR1104	Kenneth E.	Warrel	
25	STR1105	Dale	Washburn	
26	STR1106	Dorothy	Washburn	
27	STR1107	Dick	Watts	
28	STR1108	Everett A.	Weakley	
29	STR1109	Clarence Ben	Webb	
30	STR1110	Barbara A.	Weber	
31	STR1111	E. Thomas	Weber	
32	STR1112	Myra Janice	Weber	
33	STR1113	Elmo L.	Weeks	
34	STR1114	Regan	Weeks	
35	STR1115	Violet H.	Weeks	
36	STR1116	Greg	Weier	
37	STR1117	Mark	Weiss	
38	STR1118	Meg	Weiss	
39	STR1119	Robert W.	Welch	
40	STR1120	Dwayne	Werner	
41	STR1121	Susan	Werner	
42	STR1122	Ingrid	Wertz	
43	STR1123	Nikki	Wheeler	
44	STR1124	Jim	Whiteside	
45	STR1125	Jason	Whitlock	
46	STR1126	Karen J.	Wieda	
47	STR1127	James E.	Wilcox	Trout Unlimited
48	STR1128	Jonathan C.	Wiles	
49	STR1129	Gary	Wilgus	Wilgus Taxidermy
50	STR1130	Lyle	Wilhem	
51	STR1131	Janice	Williams	
52	STR1132	Mark	Williams	
53	STR1133	Marci	Willison	
54	STR1134	Patrick	Willison	

	ContactID	First Name	Last Name	Organization Name
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2	STR1136	Henry	Willmes	
3	STR1137	Joan	Wilson	
4	STR1138	Kevin Mark	Wilson	
5	STR1139	Robert	Wilson	
6	STR1140	Wanda	Winchel	
7	STR1141	Mary Lou	Wing	Wing Orchard
8	STR1142	David	Winiarski	
9	STR1143	Rose Marie	Winters	
10	STR1144	Mike	Wise	
11	STR1145	George F.	Wolcott	Law Office of George F. Wolcott
12	STR1146	Sybil W.	Wolcott	Law Office of George F. Wolcott
13	STR1147	Louise M.	Wonacott	
14	STR1148	Joyce Cooley	Wood	
15	STR1149	Patsy L.	Woodley	
16	STR1150	Robert E.	Woodley	
17	STR1151	Berta	Woodward	
18	STR1152	Scott	Woodward	
19	STR1153	Woody	Woodward	
20	STR1154	Beth	Wright	
21	STR1155	Brad	Wright	
22	STR1156	Judith	Wright	UFA Adventures, Inc.
23	STR1157	Marilyn J.	Wright	
24	STR1158	Melvin	Wrylie	
25	STR1159	Jack A.	Yale	
26	STR1160	Peggy	Yale	
27	STR1161	Susan A.	Yates	
28	STR1162	Joan	Young	
29	STR1163	Martin F.	Zakrajsek	
30	STR1164	Thomas S.	Zemanian	
31	STR1165	Lew	Zinkle	
32	STR1166	Sara	Zinkle	
33	STR1167	Ines	Zozaya-Geist	
34	STR1168	Doyle	Zuhlke	
35	STR1169	Mary J.	Zuhlke	
36	STR1170		Newell	Newell Enterprises
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