Appendix L

Risk Assessment and Environmental Consequence Analysis

Prepared for: Keystone Pipeline Project
TransCanada Keystone Pipeline, LP

Pipeline Risk Assessment and Environmental Consequence Analysis

ENSR Corporation
June 2006
Document No.: 10623-004

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1.0 Project Overview

TransCanada Keystone Pipeline, LP (Keystone) proposes to construct and operate a crude oil pipeline and related facilities from Hardisty, Alberta, Canada, to Patoka, Illinois, in the United States (U.S.). The project, known as the Keystone Pipeline Project or Keystone, initially will have the capacity to deliver 435,000 barrels per day (bpd) of crude oil from an oil supply hub near Hardisty to existing terminals in Salisbury, Missouri, and Wood River and Patoka, Illinois. If market conditions warrant expansion in the future, additional pumping capacity could be added to increase the average throughput to 591,000 bpd. Based on shipper interest, Keystone also is considering the construction of two pipeline extensions to take crude oil from terminals in Fort Saskatchewan, Alberta, and deliver to Cushing, Oklahoma.

In total, the Keystone Pipeline Project will consist of approximately 1,833 miles of pipeline, including about 760 miles in Canada and 1,073 miles within the U.S. (**Figure 1-1**). These distances will increase if either or both of two potential pipeline extensions to Fort Saskatchewan, Alberta, or Cushing, Oklahoma, are constructed as discussed below.

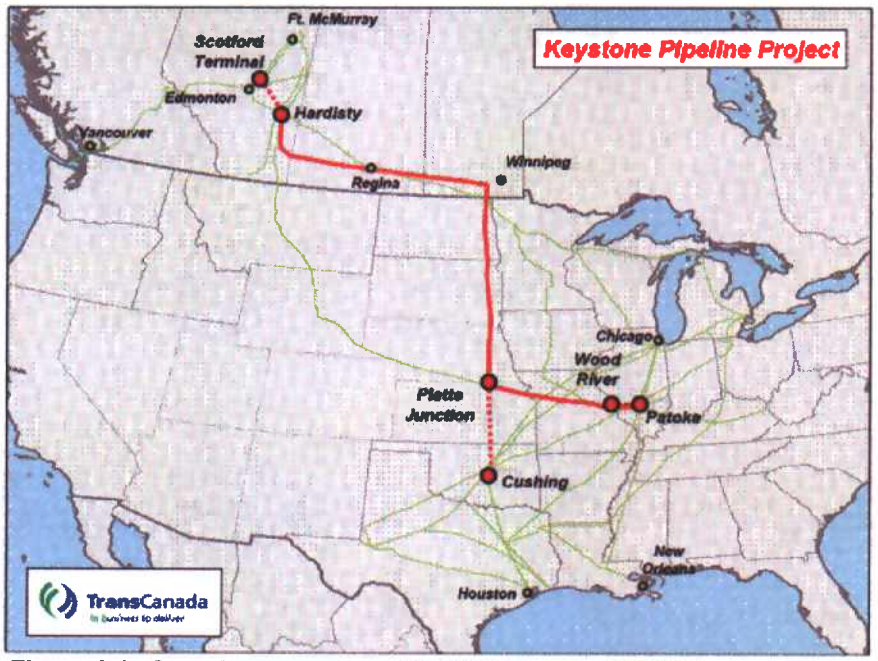

Figure 1-1 Overview Map of the Keystone Pipeline Project (Potential expansions represented by the dotted line)

In the U.S., Keystone will construct and operate a new 1,073-mile pipeline (Keystone Mainline) that will transport crude oil from the Canadian border to existing terminals in the Midwest. The proposed pipeline will consist of 1,018 miles of 30-inch pipe between the Canadian border and Wood River, Illinois and a 55-mile segment of 24-inch pipeline between Wood River and Patoka, Illinois. Depending on the results of an additional binding Open Season to be held later in 2006, Keystone also may construct a 291-mile 30-inch pipeline extension to Cushing, Oklahoma (Cushing Extension). Thus, there will be 1,365 total miles of new pipeline in the U.S. if the Cushing Extension is constructed. Unless specified, the remainder of this Supplemental Filing describes and evaluates the U.S. portion of the Keystone Pipeline Project, including both the Keystone Mainline and Cushing Extension, and the additional facilities required to increase capacity to 591,000 bpd.

The Keystone Pipeline Project will require the issuance of a Presidential Permit by the U.S. Department of State to cross the U.S./Canadian border. Issuance of the Presidential Permit is considered a federal action and is subject to environmental review pursuant to the National Environmental Policy Act (NEPA) (42 United States Code § 4321 et seq.). Keystone filed a Presidential Permit Application and Environmental Report (ER) on April 19, 2006. The ER was intended to provide the Department of State and other involved agencies with adequate information to commence review of the Keystone Pipeline Project under NEPA. The ER includes an objective disclosure of beneficial and adverse environmental impacts resulting from the Keystone Pipeline Project, as well as a set of reasonable alternatives. Keystone has stated that it will supplement the environmental information provided in the ER with the results of its field studies and pipeline risk assessment as they are completed.

2.0 Introduction

This portion of the supplemental filing represents Keystone's initial evaluation of the risk of a pipeline disruption and its potential environmental consequences. This section focuses on the potential for spills during operations and the subsequent potential effects on sensitive resources and humans associated with major spills. Additional effects on public health and safety that could occur during project construction are discussed under other resource sections (e.g., air quality, water resources, transportation, land use, and aesthetics) within the Keystone Pipeline Project's ER, which was submitted to the Department of State on April 19, 2006.

General information on pipeline safety and historical spills as documented in the U.S. Department of Transportation (USDOT) incident database were previously presented in Section 3.12 of the ER. Section 3.12 of the ER also summarized the location and extent of natural hazards and sensitive natural and human resources near the Keystone Pipeline Project.

This report builds upon the baseline information presented in the ER. The report presents the results of a pipeline oil spill frequency and spill analysis based on Keystone's current project-specific design and operations criteria and applies the resulting risk probabilities to an environmental consequence analysis that incorporates project-specific environmental data. Specifically, this report evaluates the risk of crude oil spills during pipeline operations, including contribution of natural hazards to spill risk, and the subsequent potential effects on humans and other sensitive resources, called high consequence areas (HCAs), that include populated areas, drinking water areas, and/or ecologically sensitive areas.

As Keystone collects additional information to support the risk assessment through ongoing design work and environmental field surveys, this risk assessment and its supporting reference documents will continue to evolve. The risk assessment process is an iterative procedure in which information is continually updated and refined in an effort to improve the specificity of the assessment. Keystone anticipates submitting an updated consequence analysis in November 2006 that incorporates the additional design and environmental data into the assessment.

3.0 Spill Frequency-Volume Study

A project-specific oil spill frequency and volume study for the Keystone Pipeline Project was conducted by DNV Consulting and is provided in **Appendix A**. DNV Consulting assessed the U.S. portion of the Keystone Pipeline in terms of frequency and volume of potential spills to quantify the likelihood of realistic maximum spill volumes. The study estimated the frequency and volume of releases for each defined pipeline segment for three postulated hole sizes and six distinct and independent failure causes, and developed a frequency-volume curve for the pipeline as a whole.

The study is a quantitative assessment of spill potential for the entire pipeline system and of individual segments of the pipeline. The Keystone Pipeline system was partitioned into 1,317 segments based on similar design, operational, terrain, and other potential risk parameters, each with a virtually consistent risk profile. Spill frequency was estimated for each segment along with potential spill volumes, based on small holes (<0.1-inch diameter), medium holes (1-inch diameter), and large holes (>10-inch diameter).

Two throughput scenarios were evaluated, a 435,000 bpd and a 591,000 bpd throughput case (nominal and maximum throughput). For the assessment, a leak detection capability of 1.5 percent in 138 minutes and a 15 percent leak detected within 18 minutes was assumed. Because Keystone is currently engineering the pipeline system, a detailed hydraulic profile and leak detection systems are not currently available. As the engineering and design progresses, the information will be integrated into the study and revised spill frequency and spill volumes will be estimated.

3.1 Spill Frequency

Spill frequencies were estimated from historical data and modified by project-specific factors to estimate spill frequencies for the Keystone Pipeline system. Based on the available information, the study produced an overall frequency for spills or leaks greater than 50 barrels of 0.14 spills per year for a throughput of 435,000 bpd over the entire pipeline system, equivalent to one spill every 7 years. **Table 3-1** shows the number of spills that might occur along the Keystone Pipeline system during the next 10 years.

Table 3-1 Spill Occurrence Interval Associated with the Proposed Keystone Project over 10 Years

	Spills[1]
Keystone Mainline (1,073 miles)	1.1
Cushing Extension (291 miles)	0.3
Total Keystone Project (1,365 miles)	1.4

[1]Calculated based on project-specific analysis of spill probabilities for 435,000 bpd (**Appendix A**).

While future events cannot be known with absolute certainty, spill frequencies can be used to estimate the number of events that might occur. Actual frequency may differ from the predicted values of this analysis. Notably, with the implementation of USDOT's Integrity Management Rule, the number of spills is expected to decline from historical levels observed on other pipelines. Incident frequencies have been steadily decreasing and are five times lower in recent years compared with thirty years ago (EGIG 2005).

3.2 Spill Volume

Estimated spill volumes were based on leak rate and time to isolate for throughputs of 435,000 and 591,000 bpd along the Keystone Pipeline system. The study currently assumes complete drain down within the affected segment, recognizing that actual spill volumes are expected to be significantly less. Actual incident data from the *Hazardous Liquid Pipeline Risk Assessment* (California State Fire Marshal 1993) indicate that spill volumes are significantly less than the potential drain down volume. For example, in 50 percent of the cases, the actual spill volume represented less than 0.75 percent of the maximum potential drain down volume. In 75 percent of the cases, the actual spill volume represented less than 4.6 percent of the maximum drain down volume. Procedures to reduce spill volume, such as depressurization and drain down, may significantly reduce the predicted spill volumes estimated for the Keystone Pipeline, bringing the spill volume distribution more in line with USDOT historical data. Spill volume estimates, revised to account for drain down and depressurization, will be included in Keystone's November 2006 Supplemental filing.

Of the postulated 1.4 spills along the Keystone Pipeline system during a 10-year period, the study's findings suggest that approximately 0.2 would be 50 barrels or less; 0.8 would consist of between 50 and 1,000 barrels; 0.3 would consist of between 1,000 and 10,000 barrels; and 0.2 would contain more than 10,000 barrels[1] (**Appendix A**). The spill volume frequency distribution likely underestimates the proportion of spill volumes under 50 barrels due to reliance upon the greater than 50 barrel reporting criteria within the USDOT incident database. The current analysis tends to overemphasize larger spills and underreport the small spills, making the assessment conservative.

Based on probabilities generated from the study, the estimated occurrence intervals for a spill of 50 barrels or less occurring anywhere along the entire pipeline system is once every 65 years, a spill between 50 and 1,000 barrels might occur once in 12 years; a spill of 1,000 and 10,000 barrels might occur once in 39 years; and a spill containing more than 10,000 barrels might occur once in 50 years. Applying these statistics to a 1-mile section, the chances of a large spill (greater than 10,000 barrels) would be less than once every 67,000 years. The results of the study are incorporated into the environmental consequence analysis presented in Section 4.0 below.

3.3 Contribution of Natural Hazards to Spill Potential

As part of its National Pipeline Mapping System (NPMS) program, the USDOT has compiled data from a variety of sources to identify areas of high geologic hazard potential for pipelines (USDOT-NPMS 2005). The Integrity Management Rule (2002) states that segments of pipeline with a high geologic risk and the potential to impact HCAs must implement protective measures. HCAs are specific locales and areas where a release could have the most significant adverse consequences. Examples of protective measures may include: enhanced damage prevention programs, reduced inspection intervals, corrosion control program improvements, leak detection system enhancements, installation of Emergency Flow Restricting Devices (EFRDs), and emergency preparedness improvements. **Table 3-2** provides a summary of the geologic hazards and pipeline miles identified with HCAs.

[1] Total does not sum to 1.4 spills due to rounding.

Table 3-2 Summary of Geological Hazard HCAs Identified Along the Keystone Pipeline Project

	Potential Geological Hazards (miles of pipeline)		
	Earthquake	**Flood**	**Landslide**
Keystone Mainline			
North Dakota	0.0	3.0	0.0
South Dakota	0.0	21.9	7.7
Nebraska	0.0	21.9	13.1
Kansas	0.0	10.9	0.0
Missouri	0.0	99.5	30.1
Illinois	0.0	12.8	6.9
Keystone Mainline subtotal	*0.0*	*170.1*	*57.8*
Cushing Extension			
Nebraska	0.0	2.5	2.5
Kansas	0.0	107.2	7.0
Oklahoma	0.0	27.8	0.0
Cushing Extension Subtotal	*0.0*	*137.4*	*9.5*
Project Total	**0.0**	**307.5**	**67.3**

Seismicity and Faults. Seismic damage to buried pipelines is due to the combination of seismic wave propagation and permanent ground displacement. Strong ground shaking also can cause water-saturated soils to become liquified (liquifaction). Earthquakes tend to cause more damage to segmented pipelines than to continuous pipelines that have joints consisting of full penetration welded steel. The Keystone Pipeline will be a continuous pipeline. Buckling and pinhole leaks (typically at previously weakened areas of corrosion) are the most common types of pipeline damage caused by seismic events.

Nationwide, earthquakes (and other natural hazards) are responsible for less than 3 percent of all pipeline incidents each year. Moreover, O'Rourke and Palmer (1996) studied earthquake performance data for steel transmission and distribution pipelines over a 61-year period. Their review of the data found that post-1945 electric arc-welded transmission pipelines in good repair have performed very well in earthquakes.

Keystone will construct all new facilities to current Uniform Building Code standards. Additional engineering measures to account for seismic activity are not expected to be required due to relatively low seismic activity in the region crossed by the Keystone Pipeline Project.

Federal regulations (49 CFR 195) require Keystone to conduct an internal inspection if an earthquake, landslide, or soil liquefaction is suspected of having caused abnormal movement of the pipeline. Consequently, damage to the pipeline would be detected quickly and spills would be averted or minimized. The likelihood of earthquake damage to the Keystone Pipeline is low, as the entire Keystone Pipeline Project falls outside of the USDOT-defined high earthquake hazard areas.

Landslides. Three segments of the Keystone Pipeline Project cross areas identified by the NPMS as having high landslide potential (**Table 3-2**). These areas are located at 1) the Missouri River crossing near Yankton, South Dakota; 2) the Nebraska-Kansas border at Silver Hills; and 3) the Missouri and Mississippi River crossings. These areas will be field verified and evaluated for recent landslide activity and determination of whether HCAs could be impacted. Overall, landslides are considered a low hazard to the Keystone Pipeline system.

Subsidence. Subsidence of the ground surface can result in damage due to loss of support and the transfer of stresses in the ground to structures and facilities. Subsidence can be caused by several factors, but the cause of subsidence considered here is the dissolution of subsurface strata. Limestone, dolomite, gypsum or other susceptible rock is susceptible to water solution. The dissolution may cause surface effects such as sinkholes or depressions of the ground surface, caves, sinking streams, springs and seeps, and valleys with closed drainage (Kastning and Kastning 1999). The surface effects of dissolution are referred to as karst terrain.

Several areas of potential karst hazards were identified along the proposed route based on the map produced by Davies et al. (1984). In South Dakota and Nebraska, Upper Cretaceous Niobrara Formation and equivalents are identified as strata that could be involved in the formation of karst. Areas in northeast Kansas and Missouri are underlain by limestones in Pennsylvanian and Permian-age strata. The solution features are characterized as irregularly spaced (1,000 feet or more) small fissures (less than 1,000 feet long and 50 feet deep) with 50 feet or more overburden. Overall, subsidence is a low hazard to the Keystone Pipeline System.

Flooding. Scattered portions of the Keystone Pipeline Project cross areas that are ranked as high flood hazard areas by the NPMS (**Table 3-2**). These areas are more prevalent along the southern portion of the route and are generally collocated with major river systems, such as the Missouri, Platte, Kansas, Arkansas, and Mississippi Rivers. These areas will be field verified and cross-checked with Federal Emergency Management Agency flood maps. If the area is highly susceptible to flooding, then the portion of pipeline within the affected area will be cross-referenced for presence of HCAs and, if present, protective measures will be taken, as per 49 CFR Part 195. Additionally, if aboveground facilities are located within potential floodplains, Keystone will evaluate the potential for relocating these facilities and/or measures to reduce damage to aboveground facilities should flooding occur.

4.0 Consequences of a Spill

4.1 Human Consequences

The risk associated with the Keystone Pipeline system can be compared with the general risk to the population encountered in everyday life. Proposed actions that result in negligible additional risk are generally acceptable. The National Center for Health Statistics (CDC 2003) age-adjusted average annual death rate in the U.S. is approximately 830 per 100,000. The USDOT reports the historical average risk to the general population per year associated with hazardous liquids transmission pipelines, such as Keystone, is 1 in 27,708,096 (USDOT 2002). Therefore, the predicted risk of fatality to the public from incidents associated with the Keystone Pipeline over and above the normal U.S. death rate is negligible (<1 percent).

4.2 Environmental Consequences

The environmental risk posed by a crude oil pipeline is a function of 1) the probability of an accidental release, 2) the probability of a release reaching an environmental receptor (e.g., waterbody, fish), 3) the concentration of the contamination once it reaches the receptor, and 4) the hazard posed by that concentration of crude oil to the receptor. Based on spill probabilities and estimated spill volumes, this environmental assessment determines the probability of exposure to environmental receptors and the probable impacts based on a range of potential concentrations.

4.2.1 Environmental Fate of Crude Oil Spills

4.2.1.1 Crude Oil Composition

The composition of crude oil varies widely, depending on the source and processing. Crude oils are complex mixtures of hundreds of organic (and a few inorganic) compounds. These compounds differ in their solubility, toxicity, persistence, and other properties that profoundly affect their impact on the environment. The effects of a specific crude oil cannot be thoroughly understood without taking its composition into account.

Crude oil transported by the Keystone Pipeline Project is derived from the Alberta oil sands region. The oil extracted from the sands is called bitumen, a black and thick oil. In order for the bitumen to be transported by pipeline, an upgrading technology is applied to convert the bitumen to synthetic crude oil. The precise composition of synthetic crude will vary by shipper and is considered proprietary information.

The primary classes of compounds found in crude oil are alkanes (hydrocarbon chains), cycloalkanes (hydrocarbons containing saturated carbon rings), and aromatics (hydrocarbons with unsaturated carbon rings). Most crude oils are more than 95 percent carbon and hydrogen, with small amounts of sulfur, nitrogen, oxygen, and traces of other elements. Crude oils contain lightweight straight-chained alkanes (e.g., hexane, heptane), cycloalkanes (e.g., cyclyohexane), aromatics (e.g., benzene, toluene), cycloalkanes, and heavy aromatic hydrocarbons (e.g., polycyclic aromatic hydrocarbons [PAHs], asphaltines). Straight-chained alkanes are more easily degraded in the environment than branched alkanes. Cycloalkanes are extremely resistant to biodegradation. Aromatics (i.e., benzene, toluene, ethylbenzene, xylenes [BTEX compounds]) pose the most potential for environmental concern. Because of their lower molecular weight they are more soluble in water than alkanes and cycloalkanes.

4.2.1.2 Environmental Fate and Transport

Accidental releases of crude oil can occur during transport by pipeline. Once released into the environment, the crude oil will pool in low-lying areas. Some lighter volatile constituents of the crude oil will evaporate into air, while other constituents will bind or leach into soils, or dissolve into water. Hydrocarbons that volatilize into

the atmosphere are broken down by sunlight into smaller compounds. This process, referred to as photodegradation, occurs rapidly in air and the rate of photodegradation increases as molecular weight increases. If released onto soil, a portion of the crude oil will penetrate the soil as a result of the effects of gravity and capillary action. The rate of penetration will depend on the nature of the soil. Since crude oil is more viscous than water, crude oils penetrate soils less quickly. When released into water, a portion of the crude oil will tend to float to the surface where it can evaporate, other fractions will dissolve, and some material may descend to the bottom as sedimentation.

Spreading of crude oil increases with wind and current speed and increasing temperature. Most crude oils spread across surface waters at a rate of 100 to 300 meters per hour. Surface ice will greatly reduce the spreading rate of oil across a waterbody. Spreading reduces the bulk quantity of crude oil present in the vicinity of the spill but increases the spatial area within which adverse effects may occur. Thus crude oil in flowing, as opposed to contained, waterbodies will be less concentrated in any given location, but may cause impacts, albeit reduced in intensity, over a much larger area. Spreading and thinning of spilled crude oil also increases the surface area of the slick, thus enhancing surface dependent fate processes such as evaporation, degradation, and dissolution.

Dispersion of crude oil increases with increasing surface turbulence. The dispersion of crude oil into water may serve to increase the surface area of crude oil susceptible to dissolution and degradation processes and thereby limit the potential for physical impacts.

Evaporation will be the primary mechanism of loss for low molecular weight constituents and light oil products. As lighter components evaporate, remaining crude oil becomes denser and more viscous. Evaporation thus tends to reduce crude oil toxicity but enhances crude oil persistence. Bulk evaporation of Alberta crude oil accounted for an almost 50 percent reduction in volume over a 12-day period (Shiu et al. 1988). Evaporation increases with increased spreading of a slick, increased temperature, and increased wind and wave action.

Dissolution of crude oil in water is not a significant process controlling the crude oil's fate in the environment, since most components of oils are relatively insoluble (Neff and Anderson 1981). Moreover, overall solubility of crude oils tend to be less than their constituents since solubility is limited to the partitioning between oil and water interface and individual compounds are often more soluble in oil than in water, thus they tend to remain in the oil. Nevertheless, dissolution is one of the primary processes affecting the toxic effects of a spill, especially in confined waterbodies. Dissolution increases with decreasing molecular weight, increasing temperature, decreasing salinity, and increasing concentrations of dissolved organic matter. Greater photodegradation also tends to enhance the solubility of crude oil in water.

Heavy molecular weight hydrocarbons will bind to suspended particulates, and this process can be significant in highly turbid or eutrophic waters. Organic particles (e.g., biogenic material) tend to be more effective at sorbing oils than inorganic particles (e.g., clays). Sorption processes and sedimentation reduce the quantity of heavy hydrocarbons present in the water column and available to aquatic organisms. However, these processes also render hydrocarbons less susceptible to degradation. Sedimented oil tends to be highly persistent and can cause shoreline impacts.

Photodegradation of crude oil increases with greater solar intensity. It can be a significant factor controlling the disappearance of a slick, especially of lighter oil constituents; but it will be less important during cloudy days and winter months. Photodegraded crude oil constituents tend to be more soluble and more toxic than parent compounds. Extensive photodegradation, like dissolution, may thus increase the biological impacts of a spill event.

In the immediate aftermath of a crude oil spill, natural biodegradation of crude oil will not tend to be a significant process controlling the fate of spilled crude oil in waterbodies previously unexposed to oil. Microbial populations must become established before biodegradation can proceed at any appreciable rate. Also, prior to weathering (i.e., evaporation and dissolution of light-end constituents), oils may be toxic to the very

organisms responsible for biodegradation and high molecular weight constituents tend to be resistant to biodegradation. Biodegradation is nutrient and oxygen demanding and may be precluded in nutrient-poor aquatic systems. It also may deplete oxygen reserves in closed waterbodies, causing adverse secondary effects to aquatic organisms.

With time, however, microorganisms capable of consuming crude oil generally increase in number and the biodegradation process naturally remediates the previously contaminated soil. The biodegradation process is enhanced as the surface area of spilled oil increases (e.g., by dispersion or spreading). Biodegradation has been shown to be an effective method of remediating soils and sediments contaminated by crude oil.

Overall, the environmental fate of released crude oil is controlled by many confounding factors and persistence is difficult to predict with great accuracy. Major factors affecting the environmental fate include spill volume, type of crude oil, dispersal rate of the crude oil, terrain, receiving media, and weather. Once released, the physical environment largely dictates the environmental persistence of the spilled material. Along the Keystone Pipeline route, the primary habitats of concern include low gradient streams, rivers, and small intermittent ponds. Wetlands also are frequently located along the proposed pipeline route. Estimates of the length of time materials could persist at potentially acute concentrations vary depending on the size of spill and environmental conditions. In warm summer months, the acutely toxic volatile component of crude oil will evaporate quickly, and a relatively small release into a high gradient stream would be expected to rapidly dissipate. In contrast, crude oil released into a small stream in winter could become trapped under pockets of ice and, thus persist longer.

4.2.2 Environmental Impacts

An evaluation of the potential impacts resulting from the accidental release of crude oil into the environment is discussed by environmental resource below.

4.2.2.1 Soils

Soils could be impacted because pipelines are buried and soil absorption of spilled crude oil would occur. In contrast with crude oil releases to surface waters where the oil would disperse downstream, subsurface releases to soil tend to disperse more slowly and are generally located within a contiguous and discrete area. Effects to soils can be quite slow to develop, allowing time for emergency response and cleanup actions to mitigate effects to potential receptors.

Depending on a number of factors (including size and rate of release, topography of the release site, vegetative cover, soil moisture, bulk density and soil porosity), a portion of the released materials would enter the surrounding soil and disperse both vertically and horizontally in the soil. High rates of release from the buried pipeline would result in a greater likelihood that released materials would reach the ground surface, while low rates of release would be more likely to primarily remain within the less compacted pipe trench backfill with a smaller portion dispersing within surrounding, consolidated subsurface materials. The sandy soils found throughout most of the pipeline route would likely facilitate horizontal and vertical dispersion. If present, soil moisture and moisture from precipitation would increase the dispersion and migration of crude oil.

Crude oil released to the soil's surface could potentially produce localized effects on plant populations (see Vegetation, Section 3.2.3 below). Within areas of active agriculture, the release of crude oil could result in the contamination of soils. Keystone would be responsible for cleanup of contaminated soils. Once remedial cleanup levels were achieved in the soils, no adverse or long-term impacts to agricultural lands would be expected.

Both on the surface and in the subsurface, rapid attenuation of light, volatile constituents (due to volatilization) would quickly reduce the total volume of product, while heavier constituents would be more persistent. Except in cases of high rate and high total volume releases, and environmental settings characterized by steep

topography or karst terrain, soil impacts would be confined to a relatively small, contiguous, and easily defined area. This would facilitate cleanup and remediation. Within a relatively short time, lateral migration would generally stabilize and downward vertical migration could begin to occur.

If a spill were to occur, the majority of the crude oil would likely reside in the less consolidated soil (lower soil bulk density) within the pipeline trench. The vast majority of the pipeline is located in relatively flat terrain. In these flat locations, the oil would disperse horizontally within the pipeline trench with a smaller portion of the spilled oil moving into the surrounding, more consolidated soil. If the spill were to occur on a steep slope, crude oil would likely pool primarily within the trench behind the trench breakers. If sufficient volume existed, the crude oil would breach the soil's surface as it extended over the top of the trench breaker. Once on the soil's surface, the release would be more apparent to leak surveillance patrols. Soil types and the presence of clay lenses, layers of bedrock, or karst terrain would significantly influence the dispersal pattern of spilled materials.

Crude oil released to the environment would tend to have greater dispersion in sandy and badland soils than in more consolidated soils. If a release were to occur in sandy soils or badland areas, it is likely that the spatial extent of the contamination would be greater than in areas containing more organic soils. Consequently, the amount of soil that would need to be cleaned up would be less than or equal to the maximum amount. Crude oil released into sandy or badland soils would likely become visible to aerial surveillance due to product on the soils surface or discoloration of vegetation.

The removal and disposal of contaminated soil likely represents the remedial action that would cause the greatest amount of surface disturbance. Based on a spill volume of 2,000 barrels (over 80 percent of spills are smaller than this volume), the maximum amount of soil that would need to be removed was calculated. Soil cleanup levels for benzene in soil from petroleum releases vary by state (Nebraska: 3.63 parts per million [ppm]; Illinois: 1.6 ppm; South Dakota: 17 ppm; Kansas 9.8 ppm). The volume of soil remediation is based upon two different calculations to aid in identifying worst-case (2,001,277 cubic yards) and best-case (2,059 cubic yards) volume estimates. The worst-case estimate assumes a 2,000-barrel release, an estimated concentration of benzene in the oil, and a uniform distribution of oil to achieve the most stringent state recommended soil cleanup level (RCL) for benzene (1.6 ppm). The approach assumes that all the oil is evenly spread to a mass of oil such that the resulting oil benzene concentration is 1.6 milligrams per kilograms. Because the RCL is used as a target, the resulting volume of soil is actually the volume of soil at which no removal action would be needed. The best case estimate assumes the same 2000 barrel release but calculates the volume of soil that could fill with the volume of the release based on an estimated 30 percent soil porosity and a 10 percent soil moisture content and would likely be the minimum volume of soil to be removed. The actual remediation soil volume would likely be closer to the best-case estimate although higher than this estimate.

These estimates are gross estimations. Release dynamics such as leak rate, leak duration, and effects of isolation controls would result in different surface spreading and infiltration rates, which in turn, affect the final volume of affected soil to be remediated.

4.2.2.2 Water Resources

While normal operations would not adversely affect water resources, abnormal operations could result in released crude oil entering water resources. As part of project planning and in recognition of the environmental sensitivity of waterbodies, the Keystone Pipeline routing process attempted to minimize the waterbodies crossed. Furthermore, valves have been strategically located along the Keystone Pipeline to help reduce the amount of crude oil that could potentially spill into waterbodies, if such an event were to occur. The location of valves, spill containment measures, and the Keystone Emergency Response Plan would mitigate adverse effects to both surface and groundwater.

Flowing Surface Waters

To evaluate the likelihood of adverse effects to surface water resources, measurement endpoints were developed to correspond with the most sensitive resource potentially affected (surface water that provides drinking water and supports aquatic life) and to address the primary regulatory thresholds that trigger emergency response and remediation. These measurement endpoints (toxicity thresholds and drinking water standards) were compared to the maximum possible concentration of benzene. Benzene values were selected for comparison because they were the most likely to show adverse impacts to aquatic biota and drinking water.

These measurement endpoints were compared to estimated concentrations of crude oil in the surface water. Rather than evaluate the risk to each waterbody crossed by the Keystone Pipeline, this risk assessment evaluated streams categories, broadly classified by magnitude of streamflow and stream width. **Table 4-1** summarizes the stream categories used for the assessment and identifies several representative streams within these categories.

Table 4-1 Stream Categories

	Streamflow (cubic feet per second; cfs)	Stream Width (feet)	Representative Streams
Low Flow Stream	10 – 100	<50	Shell Creek, Mill Creek
Lower Moderate Flow Stream	100 – 1,000	50 – 500	Pembina Creek, James River, Sheyenne River, Cuivre River
Upper Moderate Flow Stream	1,000 – 10,000	500 – 1,000	Platte River, Chariton River, Missouri River
High Flow Stream	>10,000	1,000 – 2,500	Mississippi River

Although the concentration of crude oil constituents in an actual spill would vary both temporally and spatially and localized toxicity could occur from virtually any size of crude oil spill, for this analysis it was conservatively assumed that the entire volume of the spill was released directly into a waterbody and that complete, instantaneous mixing occurred. These assumptions are highly conservative and, thus, overestimate potential toxic effects. These estimated benzene concentrations within the surface waterbodies were then compared with acute and chronic toxicity thresholds for human health drinking water thresholds and for aquatic biota.

The promulgated drinking water standards for humans vary by several orders of magnitude for crude oil constituents. For human health protection, the national Maximum Contaminant Level (MCL) is an enforceable standard established by the U.S. Environmental Protection Agency (USEPA) and is designed to protect long-term human health. Of the various crude oil constituents, benzene has the lowest national MCL at 0.005 ppm[2] and, therefore, it was used to evaluate impacts on drinking water supplies, whether from surface or groundwaters.

An evaluation of water quality was conducted to assess potential risk to drinking water supplies. The estimated concentrations of benzene within representative streamflows are summarized in **Tables 4-2** and **4-3**. A 1-hour release period for the entire spill volume was assumed in order to maximize the product concentration in water. Results suggest that most spills that enter a waterbody could result in exceedence of the national MCL for benzene. These findings indicate that rapid notification of managers of municipal water intakes downstream

[2] All affected states along the Keystone Pipeline route use the national MCL value of 0.005 ppm.

of a spill would be essential so that any drinking water intakes could be closed to bypass river water containing crude oil.

To evaluate the potential for drinking water impacts to occur in any specific waterbody, the occurrence interval for a spill at the river crossing was calculated based on probabilities generated from the USDOT database. To be conservative, a 500-foot buffer on either side of the river was added to the crossing widths identified in **Table 4-1**.

Results indicate that the chance of a spill occurring at any specific waterbody is very low. Depending on throughput, occurrence intervals ranged from about 16,000 years for a large waterbody to over 450,000 years for a small waterbody. If any release did occur, it is likely that the total release volume of a spill likely would be 50 barrels or less based on historical spill volumes, or less than 1,000 barrels based on the spill volume study (**Appendix A**).

In summary, while a release of crude oil into any given waterbody would likely cause an exceedance of drinking water standards, the frequency of such an event would be low. Nevertheless, streams and rivers with downstream drinking water intakes represent the sensitive environmental resources and could be temporarily impacted by a crude oil release.

Wetlands/Prairie Potholes/Playa Lakes

Although planning and routing efforts attempted to reduce the overall number of wetlands (including prairie potholes and playa lake environments) and static waterbodies environment crossed by the Keystone Pipeline, wetlands and waterbodies with persistently saturated soils commonly occur along and adjacent to the Keystone Pipeline route. The effects of crude oil released into a wetland environment will depend not only upon the quantity of oil released, but also on the physical conditions of the wetland at the time of the release. Wetlands include a wide range of environmental conditions. Wetlands can consist of many acres of standing water dissected with ponds and channels, or they may simply be areas of saturated soil with no open water. A single wetland can even vary between these two extremes as seasonal precipitation varies. Wetland surfaces are generally low gradient with very slow unidirectional flow or no discernable flow. The presence of vegetation or narrow spits of dry land protruding into wetlands also may isolate parts of the wetland. Given these conditions, spilled materials may remain in restricted areas for longer periods than in river environments.

Crude oil released from a subsurface pipe within a wetland could reach the soil surface. If the water table reaches the surface, the release would manifest as floating crude oil. The general lack of surface flow within a wetland would restrict crude oil movement. Where surface water is present within a wetland, the spill would spread laterally across the water's surface and be readily visible during routine right-of-way (ROW) surveillance. The depth of soil impacts likely would be minimal, due to shallow (or emergent) groundwater conditions. Conversely, groundwater impacts within the wetland are likely to be confined to the near-surface, enhancing the potential for biodegradation. If humans or other important resource exposures were to occur in proximity to the wetland, then regulatory drivers would mandate the scope of remedial actions, timeframe for remediation activities, and cleanup levels. However, response and remediation efforts in a wetland have the potential for appreciable adverse effects from construction/cleanup equipment. If no active remediation activities were undertaken, natural biodegradation and attenuation would ultimately allow a return to baseline conditions in both soil and groundwater. This would likely require a timeframe on the order of tens of years.

The evaluation of spill effects on fish and aquatic invertebrates also is applicable to wetland environments and plants. Based on a review of toxicity literature for wetland plant groups (i.e., algae, annual macrophytes, and perennial macrophytes), crude oil is toxic to aquatic plants but at higher concentrations than observed for fish and invertebrates. Therefore, assumptions and calculations based on aquatic life standards are conservative (i.e., more likely to show an adverse effect than if the limited amount of wetland toxicity data were used). Therefore, spill concentrations that are less than toxic effect levels for fish and invertebrates also would be protective for wetland plant species.

Table 4-2 Estimated Benzene Concentrations from Crude Oil Release Compared with Human Drinking Water for Streams Crossed by the Proposed Action

Throughput – 435,000 bpd	Benzene MCL (ppm)	Stream Flow Rate (cfs)	Product Released					
			Small spill: 50 barrels		Moderate spill: 1,000 barrels		Large spill: 10,000 barrels	
			Concentration (ppm)	Occurrence Interval (years)	Concentration (ppm)	Occurrence Interval (years)	Concentration (ppm)	Occurrence Interval (years)
Low Flow Stream	0.005	10	11	457,042	220	63,562	2,201	342,782
Lower Moderate Flow Stream	0.005	100	1.1	319,930	22	44,494	220	239,947
Upper Moderate Flow Stream	0.005	1,000	0.11	239,947	2.2	33,370	22	179,690
High Flow Stream	0.005	10,000	0.01	137,113	0.2	19,069	2.2	102,835

Notes:

-Predicted rates apply for each stream crossing.

-Estimated concentration is based on release of benzene into water over a 24-hour period with uniform mixing conditions.

-Concentrations are based on a 0.15 percent by weight benzene content of the crude oil.

-Benzene concentrations compared to benzene's MCL of 0.005 ppm.

-Shading indicates concentrations that could exceed the MCL.

-Occurrence intervals are based on a predicted incident frequency of 0.14 spills/year for 435,000 bpd along the entire Keystone Pipeline (**Appendix A**) and estimated stream widths. Widths of higher flow streams are greater than widths of lower flow streams, with more distance where an incident might occur. This results in a greater predicted frequency for high flow streams and a corresponding lower occurrence interval.

Table 4-3 Estimated Benzene Concentrations from Crude Oil Release Compared with Human Drinking Water Standard for Streams Crossed by the Proposed Action

Throughput – 591,000 bpd	Benzene MCL (ppm)	Stream Flow Rate (cfs)	Product Released					
			Small spill: 50 barrels		Moderate spill: 1,000 barrels		Large spill: 10,000 barrels	
			Concentration (ppm)	Occurrence Interval (years)	Concentration (ppm)	Occurrence Interval (years)	Concentration (ppm)	Occurrence Interval (years)
Low Flow Stream	0.005	10	11	281,692	220	52,783	2,201	217,030
Lower Moderate Flow Stream	0.005	100	1.1	197,149	22	36,948	220	151,921
Upper Moderate Flow Stream	0.005	1,000	0.11	147,862	2.2	27,711	22	113,941
High Flow Stream	0.005	10,000	0.01	84,493	0.2	15,835	2.2	65,109

Notes:

-Predicted rates apply for each stream crossing.

-Estimated concentration is based on release of benzene into water over a 24-hour period with uniform mixing conditions.

-Concentrations are based on a 0.15 percent by weight benzene content of the crude oil.

-Benzene concentrations compared to benzene's MCL of 0.005 ppm.

-Shading indicates concentrations that could exceed the MCL.

-Occurrence intervals are based on a predicted incident frequency of 0.19 spills/year for 591,000 bpd along the entire Keystone Pipeline (**Appendix A**) and estimated stream widths. Widths of higher flow streams are greater than widths of lower flow streams, with more distance where an incident might occur. This results in a greater predicted frequency for high flow streams and a corresponding lower occurrence interval.

Results indicate that the chance of a spill occurring at any specific wetland is very low. Based on National Wetlands Inventory mapping, wetlands comprise 46.4 miles of the entire Keystone Pipeline system (Table 3.5-8 of the Keystone Environmental Report). Of the estimated 1.4 spills postulated to occur during a 10-year period within the entire pipeline system, about 0.05 spills would be expected to occur within wetland areas (equivalent to one spill every 200 years). If any release did occur, it is likely that the total release volume of a spill likely would be 50 barrels or less based on historical spill volumes, or less than 1,000 barrels based on the spill volume study (**Appendix A**).

The predicted effects of a spill reaching standing water (e.g., reservoirs, prairie potholes) would depend largely upon the volume of crude oil entering the waterbody and the volume of water within the waterbody. **Table 4-4** summarizes the amount of water necessary to dilute spill volumes below aquatic toxicity and drinking water thresholds. While this preliminary approach does not account for fate and transport mechanisms, mixing zones, environmental factors, and emergency response capabilities, it does provide an initial benchmark for identifying areas of potential concern. An evaluation of standing water resources that could be impacted by a crude oil spill will be evaluated more completely in Keystone's November 2006 supplemental filing.

Table 4-4 Amount of Water Required to Dilute Crude Oil Spills Below Threshold Values

Barrels of Crude Oil	Volume of Water Required to Dilute Crude Oil Below Threshold (acre-feet)[1]		
	Acute Toxicity Threshold (7.4 milligrams per liter [mg/L])	Chronic Toxicity Threshold (1.4 mg/L)	Drinking Water MCL (0.005 mg/L)
50	4.6	25	6,890
150	14	74	20,669
1,000	93	492	137,790
10,000	931	4,921	1,377,904

[1]Thresholds based on aquatic toxicity and drinking water thresholds established for benzene. For the Keystone crude oil, the benzene content is estimated to be 0.15 percent by weight.

In summary, while a release of crude oil into wetland and static waterbodies has the potential to cause temporary environmental impacts, the frequency of such an event would be low. Nevertheless, wetlands and static waterbodies represent the sensitive environmental resources and further evaluation of potential impacts is warranted.

Groundwater

Multiple groundwater aquifers underlie the proposed Keystone Pipeline system. Vulnerability of these aquifers is a function of the depth to groundwater and the permeability of the overlying soils. While routine operation of the Keystone Pipeline would not affect groundwater, there is the possibility that a release could migrate through the overlying surface materials and enter a groundwater system.

In general, the potential for groundwater contamination following a spill would be more probable in locations where a release into or on the surface of soils has occurred:

- Where a relatively shallow water table is present (as opposed to locations where a deeper, confined aquifer system is present); and
- Where relatively porous soil conditions are present throughout the unsaturated zone.

Depending on soil properties, the depth to groundwater, and the amount of crude oil in the unsaturated zone, groundwater contamination can result from the migration of dissolved constituents and free crude oil. Movement in the dissolved phase typically extends for greater distances than movement of pure crude oil in the subsurface. Crude oil is less dense than water and initially would tend to form a floating pool after reaching the groundwater surface. This pool would tend to migrate laterally in the direction of groundwater flow, and the oil flow velocity would be a function of the soil properties and groundwater flow rate. Those compounds in the crude oil that are soluble in water will form a larger, dissolved "plume." This plume also would tend to migrate laterally in the direction of groundwater flow. The flow velocity of dissolved constituents also would be a function of the groundwater flow rate and would tend to migrate at a faster rate than free crude oil itself.

The extent to which potential groundwater receptors may be contaminated by a release of crude oil depends upon the rate of contaminant transport in the subsurface. The rate of contaminant movement depends, in turn, on the rate of groundwater movement and the attenuation mechanisms that act to retard contaminant movement relative to groundwater movement. In shallow aquifer systems where impacts from released crude oil are most likely, the rate of groundwater movement depends upon the hydraulic gradient, aquifer permeability and porosity, and the geometry of the aquifer system. Groundwater flow rates typically move less than 1 foot per year, though there can be much more rapid movement in individual locations (Wilson 1986). Individual constituents tend to move faster than the groundwater itself; however, contamination often takes years to disperse one mile from the point of origin (Wilson 1986).

If exposure to humans or other important resources would be possible from a release into groundwater, then regulatory drivers would mandate the scope of remedial actions, timeframe for remediation activities, and cleanup levels. However, response and remediation efforts have the potential for appreciable adverse effects from construction/cleanup equipment. If no active remediation activities were undertaken, natural biodegradation and attenuation would ultimately allow a return to baseline conditions in both soil and groundwater. Depending on the amount of crude oil reaching the groundwater and natural attenuation rates, this would likely require a timeframe up to the range of tens of years.

Attenuation mechanisms that retard the movement of contaminants include dispersion, sorption, volatilization, abiotic chemical degradation, and biological degradation. The extent to which any of these mechanisms would retard contaminant movement at a given location depends upon site-specific conditions. In general, crude oil in groundwater tends to biodegrade as described for soil releases. Even in the case of large released volumes and floating free crude oil, dispersive forces become balanced with biodegradation and attenuation mechanisms, establishing degradation equilibrium. The typical result is a relatively limited zone of impact, typically 200 meters or less downgradient (USGS 1998). Over time, these natural degradation mechanisms, along with other natural attenuation mechanisms, including dispersion, result in the removal and/or destruction of crude oil materials; both in groundwater, and in overlying impacted soils. Observed degradation rates indicate this process would typically occur in timeframes measured in tens of years, depending on the concentration of crude oil in the groundwater.

4.2.2.3 Vegetation

Terrestrial plants are much less sensitive to crude oil than aquatic species. The lowest toxicity threshold for terrestrial plants found in the USEPA ECOTOX database (USEPA 2001) was 18.2 ppm for benzene, higher than the 7.4 ppm threshold for aquatic species and the 0.005 ppm threshold for human drinking water. Similarly, available data from the USEPA database indicate that earthworms also are less sensitive than aquatic species (toxicity threshold was greater than 1,000 ppm). If concentrations were sufficiently high, crude oil in the root zone could harm individual plants and organisms.

Release of crude oil could result in the contamination of soils (see Soils, Section 3.2.1 above). Keystone would be responsible for cleanup of contaminated soils. Once remedial cleanup levels were achieved in the soils, no adverse or long-term impacts to vegetation would be expected.

4.2.2.4 Wildlife and Aquatic Resources

Spilled crude oil can affect organisms directly and indirectly. Direct effects include physical processes, such as oiling of feathers and fur, and toxicological effects, which can cause sickness or death. Indirect effects are less conspicuous and include habitat impacts, nutrient cycling disruptions, and alterations in ecosystem relationships. The magnitude of effects varies with multiple factors, the most significant of which include the amount of material released, the size of the spill dispersal area, the type of crude oil spilled, the species assemblage present, climate, and the spill response tactics employed.

The toxicity of crude oil is dependent upon its composition and that of its water-soluble fraction (WSF), especially of its aromatic content. The WSF of crude oil is dominated by one- and two-ringed aromatics (e.g., benzene and naphthalene) along with some short-chained alkanes. Long-chained alkanes (e.g., decane) and aromatic compounds with many rings (e.g., PAHs) tend to be less soluble in water. As an example, **Table 4-5** summarizes the toxicity of various crude oil hydrocarbons to the zooplankton, *Daphnia magna*. The relative toxicity of decane is much lower than for benzene or ethylbenzene because of the comparatively low solubility of decane. Most investigators have concluded that the acute toxicity of crude oil is related to the concentrations of relatively lightweight aromatic constituents (BETX and naphthalenes), particularly benzene.

Because of competing effects of solubility and toxicity, the higher the concentration of these aromatics in a particular crude oil, the more toxic it will be. Studies have shown that lighter, more volatile compounds (e.g., benzene) are more acutely toxic than heavier, more viscous compounds. While lightweight aromatics tend to be water soluble and relatively toxic, they also are highly volatile. Thus, most or all of the lightweight hydrocarbons accidentally released into the environment evaporate, and the environmental persistence of crude oil tends to be low.

High molecular weight aromatic compounds, including PAHs, are not very water-soluble and have a high affinity for organic material. Consequently, these compounds, if present, have limited bioavailability, which render them substantially less toxic than more water-soluble compounds (Neff 1979). Additionally, these compounds generally do not accumulate to any great extent because these compounds are rapidly metabolized (Lawrence and Weber 1984; West et al.1984). There are some indications, however, that prolonged exposure to elevated concentrations of these compounds may result in a higher incidence of growth abnormalities and hyperplastic diseases (Couch and Harshbarger 1985).

The sensitivity of organisms to crude oil is extremely varied. **Table 4-6** summarizes acute toxicity data for a broad range of species based on USEPA's AQUIRE database (USEPA 2000). Acute toxicity refers to the death or complete immobility of an organism within a short period of exposure. The LC_{50} is the concentration of a compound necessary to cause 50 percent mortality in laboratory test organisms. For aquatic biota, most acute LC_{50}s for monoaromatics range between 10 and 100 ppm. LC_{50}s for the polyaromatic naphthalene were generally between 1 and 10 ppm, while LC_{50} values for anthracene were generally less than 1 ppm. Fish are among the most sensitive aquatic biota, while aquatic invertebrates generally have intermediate sensitivities, and algae and bacteria tend to be the least sensitive. Nevertheless, even when major fish kills have occurred as a result of oil spills, population recovery has been observed, and long-term changes in fish abundance have not been reported. Benthic (bottom-dwelling) aquatic invertebrates tend to be more sensitive than algae, but are equally or less sensitive than fish. Planktonic (floating) species tend to be more sensitive than most benthic insects, crustaceans, and molluscs.

Fewer data are available to evaluate the toxicity of crude oil hydrocarbons on terrestrial organisms. **Table 4-7** summarizes toxicity data from the EPA's ECOTOX database (2001) for earthworms and terrestrial plants. Comparison of LC_{50} values for benzene suggests that aquatic species are more sensitive to crude oil than terrestrial organisms. Insufficient information was available to evaluate other constituents of concern.

Significantly, some constituents in crude oil may have greater environmental persistence than lightweight compounds (e.g., benzene), but their limited bioavailability renders them substantially less toxic than other

more soluble compounds. For example, aromatics with four or more rings are not acutely toxic at their limits of solubility (Muller 1987).

Table 4-5 Acute Toxicity of Crude Oil Hydrocarbons to *Daphnia magna*

Compound	48-hr LC_{50} (ppm)	Optimum Solubility (ppm)	Relative Toxicity
Hexane	3.9	9.5	2.4
Octane	0.37	0.66	1.8
Decane	0.028	0.052	1.9
Cyclohexane	3.8	55	14.5
methyl cyclohexane	1.5	14	9.3
Benzene	9.2	1,800	195.6
Toluene	11.5	515	44.8
Ethylbenzene	2.1	152	72.4
p-xylene	8.5	185	21.8
m-xylene	9.6	162	16.9
o-xylene	3.2	175	54.7
1,2,4-trimethylbenzene	3.6	57	15.8
1,3,5-trimethylbenzene	6	97	16.2
Cumene	0.6	50	83.3
1,2,4,5-tetramethylbenzene	0.47	3.5	7.4
1-methylnaphthalene	1.4	28	20.0
2-methylnaphthalene	1.8	32	17.8
Biphenyl	3.1	21	6.8
Phenanthrene	1.2	6.6	5.5
Anthracene	3	5.9	2.0
9-methylanthracene	0.44	0.88	2.0
Pyrene	1.8	2.8	1.6

Note: The LC_{50} is the concentration of a compound necessary to cause 50 percent mortality in laboratory test organisms within a predetermined time period (e.g., 48 hours) (USEPA 2000).

Relative toxicity = optimum solubility/LC_{50}.

Table 4-6 Acute Toxicity of Aromatic Hydrocarbons to Freshwater Organisms

Species	Toxicity Values (ppm)				
	Benzene	Toluene	Xylene	Naphthalene	Anthracene
Carp (*Cyprinus carpio*)	40.4	---	780	---	---
Channel catfish (*Kctalurus*)	---[1]	240	---	---	---
Clarias catfish (*Clarias* sp.)	425	26	---	---	---
Coho salmon (*Oncorhyncus kisutch*)	100	---	---	2.6	---
Fathead minnow *(Pimephales)*	---	36	25	4.9	25
Goldfish (*Carassius auratus*)	34.4	23	24	---	---
Guppy (*Poecilia reticulate*)	56.8	41	---	---	---
Largemouth bass (*Micropterus*)	---	---	---	0.59	---
Medaka (*Oryzias* sp.)	82.3	54	---	---	---
Mosquitofish (*Gambusia affinis*)	---	1,200	---	150	---
Rainbow trout (*Oncorhyncus mykis)*	7.4	8.9	8.2	3.4	---
Zebrafish (*Therapon iarbua*)	---	25	20	---	---
Rotifer *(Brachionus calyciflorus)*	>1,000	110	250	---	---
Midge *(Chironomus attenuatus)*	---	---	---	15	---
Midge *(Chironomus tentans)*	---	---	---	2.8	---
Zooplankton *(Daphnia magna)*	30	41	---	6.3	0.43
Zooplankton *(Daphnia pulex)*	111	---	---	9.2	---
Zooplanton *(Diaptomus forbesi)*	---	450	100	68	---
Amphipod *(Gammarus lacustris)*	---	---	0.35	---	---
Amphipod *(Gammarus minus)*	---	---	---	3.9	---
Snail *(Physa gyrina)*	---	---	---	5.0	---
Insect *(Somatochloa cingulata)*	---	---	---	1.0	---
Chlorella vulgaris	---	230	---	25	---
Microcystis aeruginosa	---	---	---	0.85	---
Nitzschia palea	---	---	---	2.8	---
Scenedesmus subspicatus	---	130	---	---	---
Selenastrum capricornutum	70	25	72	7.5	---

[1] --- indicates no value was available in the database.

Note: Data summarize conventional acute toxicity endpoints from USEPA's ECOTOX database. When several results were available for a given species, the geometric mean of the reported LC_{50} values was calculated.

Table 4-7 Comparison of Benzene Toxicity Concentrations for Various Organisms

	Benzene
Aquatic species	7.4 ppm
Terrestrial plant	18.2 ppm
Earthworm	>1,000 ppm

Table 4-8 summarizes chronic toxicity (most frequently measured as reduced reproduction, growth, or weight) of benzene to freshwater biota. Benzene was selected as the most conservative measure of chronic toxicity due to its combined water solubility and chronic toxicity value. Chronic toxicity from other oil constituents may occur, however, if sufficient quantities of crude oil are continually released into the water to maintain elevated concentrations.

Table 4-8 Chronic Toxicity of Benzene to Freshwater Biota

Taxa	Test species	Chronic Value (ppm)
Fish	Fathead minnow (*Pimephales promelas*)	17.2 *
	Guppy (*Poecilia reticulata*)	63
	Coho salmon (*Oncorhynchus kitsutch*)	1.4
Amphibian	Leopard frog (*Rana pipens*)	3.7
Invertebrate	Zooplankton (*Daphnia* spp.)	>98
Algae	Green algae (*Selenastrum capricornutum*)	41 4.8 *

Note: Test endpoint was mortality unless denoted with an asterisk (*). The test endpoint for these studies was growth.

Wildlife Impacts

Wildlife, especially birds and shoreline mammals, are typically among the most visibly affected organisms in any crude oil spill. Effects of crude oil can be differentiated into physical (mechanical) and toxicological (chemical) effects. Physical effects result from the actual coating of animals with crude oil, causing reductions in thermal insulative capacity and buoyancy of plumage (feathers) and pelage (fur).

Crude oil released to the environment may cause adverse biological effects on birds and mammals via inhalation or ingestion exposure. Ingestion of crude oil may occur when animals consume oil-contaminated food, drink oil-contaminated water, or orally consume crude oil during preening and grooming behaviors.

Potential adverse effects could result from direct acute exposure. Acute toxic effects include drying of the skin, irritation of mucous membranes, diarrhea, narcotic effects, and possible death. While releases of crude oil may have an immediate and direct effect on wildlife populations, the potential for physical and toxicological effects attenuates with time as the volume of material diminishes, leaving behind more persistent, less volatile, and less water-soluble compounds. Although many of these remaining compounds are toxic and potentially

carcinogenic, they do not readily disperse in the environment and their bioavailability is low, and therefore, the potential for impacts is low.

Unlike aquatic organisms that frequently cannot avoid spills in their habitats, the behavioral responses of terrestrial wildlife may help reduce potential adverse effects. Many birds and mammals are mobile and generally will avoid oil-impacted areas and contaminated food (Sharp 1990; Stubblefield et al. 1995). In a few cases, such as cave-dwelling species, organisms that are obligate users of contaminated habitat may be exposed. However, most terrestrial species have alternative, unimpacted habitat available, as will often be the case with localized spills (in contrast to large-scale oil spills in marine systems), therefore, mortality of these species would be limited (Stubblefield et al. 1995).

Indirect environmental effects of spills can include reduction of suitable habitat or food supply. Primary producers (e.g., algae and plants) may experience an initial decrease in primary productivity due to physical effects and acute toxicity of the spill. However, these effects tend to be short-lived and a decreased food supply is not considered to be a major chronic stressor to herbivorous organisms after a spill. If mortality occurs to local invertebrate and wildlife populations, the ability of the population to recover will depend upon the size of the impact area and the ability of surrounding populations to repopulate the area.

Aquatic Toxicity

In aquatic environments, toxicity is a function of the concentration of a compound necessary to cause toxic effects combined with the compound's water solubility. For example, a compound may be highly toxic, but if it were not very soluble in water then its toxicity to aquatic biota would be relatively low. The toxicity of crude oil is dependent of the toxicity of its constituents. Among these, benzene is generally considered the most toxic constituent due to the low concentrations at which toxic effects are observed and its high water solubility. Other compounds in crude oil are considered much less toxic. For this assessment, the benzene content within the crude oil hypothetically entering the waterbody was assumed to be completely dissolved in the water. This assumption overestimates the actual amount of benzene that likely would become solubilized in the water. Concentrations of benzene were compared to benzene toxicity thresholds to assess whether toxic effects might be anticipated.

For aquatic biota, the acute and chronic toxicity thresholds for benzene are 7.4 ppm and 1.4 ppm, respectively, based on standardized trout toxicity tests (USEPA 2000). These toxicity threshold values are considered protective of acute and chronic effects to other aquatic biota, since other major constituents of crude oil are less toxic. Although trout are not found in many of the habitats crossed by the project, trout studies were selected because trout are among the most sensitive aquatic species and reliable acute and chronic trout toxicity data are available.

Tables 4-9 to **4-12** summarize the predicted acute and chronic toxicity to aquatic resources, based on the amount of crude oil released and the streamflow. Broadly, acute toxicity could potentially occur if substantial amounts of crude oil were to enter most rivers and streams, as demonstrated by the Moderate and Large Spill Scenarios. If such an event were to occur within a small stream, toxicity could potentially kill or injure aquatic species in the immediate vicinity and downstream of the rupture. Under these two scenarios, chronic toxicity also could potentially occur in small and moderate sized streams and rivers. However, emergency response, containment, and cleanup efforts would help reduce the concentrations and minimize the potential for chronic toxicity. In comparison, relatively small spills (less than 50 barrels) into moderate and large rivers would not pose a major toxicological threat. In small to moderate sized streams and rivers, some toxicity might occur in localized areas, such as backwaters where concentrations would likely be higher than in the mainstream of the river.

The likelihood of a release into any particular waterbody is low, with an occurrence interval of once every 16,000 to 500,000 years. If any release did occur, it is likely that the total release volume of a spill likely would

be 50 barrels or less based on historical spill volumes, or less than 1,000 barrels based on the spill volume study (**Appendix A**).

In summary, while a release of crude oil into any given waterbody might cause immediate localized toxicity to aquatic biota, particularly in smaller streams and rivers, the frequency of such an event would be low. Nevertheless, streams and rivers with aquatic biota represent the sensitive environmental resources that could be temporarily impacted by a crude oil release.

4.3 Risk to Populated and High Consequence Areas (HCAs)

Consequences of inadvertent releases from pipelines can vary greatly, depending on where the release occurs. Pipeline safety regulations use the concept of HCAs to identify specific locales and areas where a release could have the most significant adverse consequences. HCAs include populated areas, drinking water, and unusually sensitive ecologically resource areas (USAs) that could be environmentally damaged from a hazardous liquid pipeline release (**Table 4-13**). HCAs are subject to higher levels of inspection, per 49 CFR Part 195. These data are compiled from a variety of data sources, including federal and state agencies (e.g., state drinking water agencies and the Environmental Protection Agency). These USDOT-designated HCAs are continually refined and updated. The USDOT acknowledges that spills within a sensitive area might not actually impact the sensitive resource and encourages operators to conduct detailed analysis, as needed. TransCanada will conduct a thorough analysis of potential impacts to HCAs as part of its compliance with federal regulations.

Assuming that 1.4 spills occurred along the Keystone Pipeline system in a 10-year period, it is estimated that approximately 0.18 of these spills would occur in HCAs (**Table 4-13**). Although the number of predicted spills in HCAs is relatively small, the potential impacts of these individual spills are expected to be greater than in other areas due to the environmental sensitivity within these areas. **Table 4-14** also shows the number of spills and their predicted sizes.

4.3.1 Populated Areas

Highly populated HCAs occur along 4.0 miles of the Keystone Pipeline system. These highly populated areas have been identified as HCAs by the USDOT based on U.S. Census data (**Table 4-14**). More than 99 percent of these miles are near St. Louis, Illinois. Because of the recent population growth in some areas, Keystone also will review other populated areas, including those around Troy (Missouri), Edwardsville (Missouri) and the St. Louis area (Missouri and Illinois), to determine if these areas qualify as HCAs.

Table 4-9 Comparison of Estimated Crude Oil Concentrations Following a Spill to the Acute Toxicity Thresholds for Aquatic Life (7.4 ppm) for Streams Crossed by the Proposed Action

Throughput – 435,000 bpd	Stream Flow Rate (cfs)	Acute Toxicity Threshold (ppm)	Product Released					
			Small spill: 50 barrels		Moderate spill: 1,000 barrels		Large spill: 10,000 barrels	
			Concentration (ppm)	Occurrence Interval (years)	Concentration (ppm)	Occurrence Interval (years)	Concentration (ppm)	Occurrence Interval (years)
Low Flow Stream	10	7.4	**11**	**457,042**	**220**	**63,562**	**2,201**	**342,782**
Lower Moderate Flow Stream	100	7.4	1.1	319,930	**22**	**44,494**	**220**	**239,947**
Upper Moderate Flow Stream	1,000	7.4	0.11	239,947	2.2	33,370	**22**	**179,690**
High Flow Stream	10,000	7.4	2.2	102,835	0.2	19,069	0.01	137,113

Notes:

-Predicted rates apply for each stream crossing.

-Estimated proportion of benzene in the crude oil is 0.15 percent, and is assumed to be entirely water solubilized in the event of a spill. The resulting concentration was calculated by multiplying 0.15 percent of the total amount of crude oil released divided by 96 hours of stream flow volume. The model assumes uniform mixing conditions.

-Benzene concentrations are compared against the acute toxicity threshold for benzene.

-Shading indicates concentrations that could potentially cause acute toxicity to aquatic species. The darkest shading represents high probability of acute toxicity (>10 times the toxicity threshold); lighter shading represents moderate probability of acute toxicity (1 to 10 times the toxicity threshold); and unshaded areas represent low probability of acute toxicity (<toxicity threshold).

-Occurrence intervals are based on a predicted incident frequency of 0.14 spills/year along the entire Keystone Pipeline (**Appendix A**) and estimated stream widths. Widths of higher flow streams are greater than widths of lower flow streams, with more distance where an incident might occur. This results in a greater predicted frequency for high flow streams and a corresponding lower occurrence interval.

Table 4-10 Comparison of Estimated Crude Oil Concentrations Following a Spill to the Acute Toxicity Thresholds for Aquatic Life for Streams Crossed by the Proposed Action

Throughput – 591,000 bpd	Stream Flow Rate (cfs)	Acute Toxicity Threshold (ppm)	Product Released					
			Small spill: 50 barrels		Moderate spill: 1,000 barrels		Large spill: 10,000 barrels	
			Concentration (ppm)	Occurrence Interval (years)	Concentration (ppm)	Occurrence Interval (years)	Concentration (ppm)	Occurrence Interval (years)
Low Flow Stream	10	7.4	**11**	**281,692**	**220**	**52,783**	**2,201**	**217,030**
Lower Moderate Flow Stream	100	7.4	1.1	197,149	**22**	**36,948**	**220**	**151,921**
Upper Moderate Flow Stream	1,000	7.4	0.11	147,862	2.2	27,711	**22**	**113,941**
High Flow Stream	10,000	7.4	0.01	84,493	0.2	15,835	2.2	65,109

Notes:

-Predicted rates apply for each stream crossing.

-Estimated proportion of benzene in the crude oil is 0.15 percent, and is assumed to be entirely water solubilized in the event of a spill. The resulting concentration was calculated by multiplying 0.15 percent of the total amount of crude oil released divided by 96 hours of stream flow volume. The model assumes uniform mixing conditions.

-Shading indicates concentrations that could potentially cause acute toxicity to aquatic species. The darkest shading represents high probability of acute toxicity (>10 times the toxicity threshold); lighter shading represents moderate probability of acute toxicity (1 to 10 times the toxicity threshold); and unshaded areas represent low probability of acute toxicity (<toxicity threshold).

-Occurrence intervals are based on a predicted incident frequency of 0.19 spills/year along the entire Keystone Pipeline (**Appendix A**) and estimated stream widths. Widths of higher flow streams are greater than widths of lower flow streams, with more distance where an incident might occur. This results in a greater predicted frequency for high flow streams and a corresponding lower occurrence interval.

Table 4-11 Estimated Crude Oil Concentrations Compared to the Chronic Toxicity Threshold for Aquatic Life for Streams Crossed by the Proposed Action

Throughput – 435,000 bpd	Stream Flow Rate (cfs)	Chronic Toxicity Threshold (ppm)	Product Released					
			Small spill: 50 barrels		Moderate spill: 1,000 barrels		Large spill: 10,000 barrels	
			Concentration (ppm)	Occurrence Interval (years)	Concentration (ppm)	Occurrence Interval (years)	Concentration (ppm)	Occurrence Interval (years)
Low Flow Stream	10	1.4	0.07	457,042	1.3	63,562	13	342,782
Lower Moderate Flow Stream	100	1.4	0.007	319,930	0.1	44,494	1.3	239,947
Upper Moderate Flow Stream	1,000	1.4	0.001	239,947	0.01	33,370	0.1	179,690
High Flow Stream	10,000	1.4	0.0001	137,113	0.001	19,069	0.01	102,835

-Predicted rates apply for each stream crossing.

-Estimated proportion of benzene in the crude oil is 0.15 percent, and is assumed to be entirely water solubilized in the event of a spill. The resulting concentration was calculated by multiplying 0.15 percent of the total amount of crude oil released divided by 7 days of stream flow volume. The model assumes uniform mixing conditions.

-The chronic toxicity value for benzene is based on a 7-day toxicity value of 1.4 ppm for trout.

-Exposure concentrations were estimated over a 7-day period since the chronic toxicity value was based on a 7-day exposure.

-Shading indicates concentrations that could potentially cause chronic toxicity to aquatic species. The darkest shading represents high probability of chronic toxicity (>10 times the toxicity threshold); lighter shading represents moderate probability of chronic toxicity (1 to 10 times the toxicity threshold); and unshaded areas represent low probability of chronic toxicity (<toxicity threshold).

-Occurrence intervals are based on a predicted incident frequency of 0.14 spills/year along the entire Keystone Pipeline (**Appendix A**) and estimated stream widths. Widths of higher flow streams are greater than widths of lower flow streams, with more distance where an incident might occur. This results in a greater predicted frequency for high flow streams and a corresponding lower occurrence interval.

Table 4-12 Estimated Crude Oil Concentrations Compared to the Chronic Toxicity Threshold for Aquatic Life for Streams Crossed by the Proposed Action

Throughput – 591,000 bpd	Stream Flow Rate (cfs)	Chronic Toxicity Threshold (ppm)	Product Released					
			Small spill: 50 barrels		Moderate spill: 1,000 barrels		Large spill: 10,000 barrels	
			Concentration (ppm)	Occurrence Interval (years)	Concentration (ppm)	Occurrence Interval (years)	Concentration (ppm)	Occurrence Interval (years)
Low Flow Stream	10	1.4	0.07	281,692	1.3	52,783	13	217,030
Lower Moderate Flow Stream	100	1.4	0.007	197,149	0.1	36,948	1.3	151,921
Upper Moderate Flow Stream	1,000	1.4	0.001	147,862	0.01	27,711	0.1	113,941
High Flow Stream	10,000	1.4	0.0001	84,493	0.001	15,835	0.01	65,109

-Predicted rates apply for each stream crossing.

-Estimated proportion of benzene in the crude oil is 0.15 percent, and is assumed to be entirely water solubilized in the event of a spill. The resulting concentration was calculated by multiplying 0.15 percent of the total amount of crude oil released divided by 7 days of stream flow volume. The model assumes uniform mixing conditions.

-The chronic toxicity value for benzene is based on a 7-day toxicity value of 1.4 ppm for trout.

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-Occurrence intervals are based on a predicted incident frequency of 0.19 spills/year along the entire Keystone Pipeline (**Appendix A**) and estimated stream widths. Widths of higher flow streams are greater than widths of lower flow streams, with more distance where an incident might occur. This results in a greater predicted frequency for high flow streams and a corresponding lower occurrence interval.

Table 4-13 Mileage Summary of USDOT-Defined HCAs Identified Along the Keystone Pipeline Project

	Miles of Pipeline				Number of Spills in 10 years *(occurrence interval)*			
	Highly Populated Areas	**Drinking Water**	**Ecologically Sensitive Area**	**Total in HCAs[1]**	**Highly Populated Areas**	**Drinking Water**	**Ecologically Sensitive Area**	**Total HCAs**
North Dakota	0.0	7.0	2.0	9.0	NA	0.007 (1,300 yrs)	0.002 (4,700 yrs)	0.01
South Dakota	0.0	7.8	22.5	26.9	NA	0.008 (1,200 yrs)	0.024 (420 yrs)	0.03
Nebraska	0.0	7.9	9.3	12.6	NA	0.008 (1,200 yrs)	0.009 (1,000 yrs)	0.01
Kansas	0.0	8.4	18.3	26. 7	NA	0.008 (1,100 yrs)	0.019 (510 yrs)	0.03
Missouri	0.1	16.7	59.0	69.6	NA	0.018 (560 yrs)	0.063 (160 yrs)	0.07
Illinois	3.9	16.8	7.3	25.2	0.004 (2,500 yrs)	0.018 (560 yrs)	0.007 (1,300 yrs)	0.03
Keystone Mainline subtotal	*4.0*	*64.6*	*118.4*	*169.9*	*0.004 (2,500 yrs)*	*0.069 (145 yrs)*	*0.13 (79 yrs)*	*0.18*
Nebraska	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.00
Kansas	0.0	45.3	47.7	59.7	NA	0.048 (210 yrs)	0.051 (200 yrs)	0.06
Oklahoma	0.0	18.3	7.7	11.4	NA	0.019 (510 yrs)	0.008 (1,200 yrs)	0.01
Cushing Extension Subtotal	*0.0*	*63.6*	*55.4*	*71.1*	*NA*	*0.068 (150 yrs)*	*0.060 (170 yrs)*	*0.07*
Project Total	**4.0**	**128.2**	**173.8**	**0.0**	**0.004 (2,500 yrs)**	**0.14 (73 yrs)**	**0.19 (54 yrs)**	**0.00**

[1] Numbers do not add up because some miles overlap in the different types of HCAs.

Note: NA indicates no highly populated area within the segment.

Table 4-14 Release and Spill Volume Occurrence Interval Associated with the Keystone Pipeline Project

	Miles of Pipe[1]	Number of Spills in 10 years (occurrence interval)				
		Total Number	<50 barrels (bbls)	50 to 1,000 bbls	1,000 to >10,000 bbls	>10,000 bbls
KEYSTONE MAINLINE						
Populated Areas	3.9	0.004 (2,500 years)	0.0004 (23,000 years)	0.002 (4,000 years)	0.0007 (14,000 years)	0.0006 (18,000 years)
Drinking Water Areas	64.6	0.069 (140 years)	0.007 (1,300 years)	0.04 (250 years)	0.01 (820 years)	0.01 (1,000 years)
Ecologically Sensitive Areas	118.4	0.13 (77 years)	0.014 (710 years)	0.075 (130 years)	0.023 (430 years)	0.018 (560 years)
CUSHING EXTENSION						
Populated Areas[2]	0.0	0.0	0.0	0.0	0.0	0.0
Drinking Water Areas	63.6	0.068 (150 years)	0.007 (1,400 years)	0.039 (260 years)	0.012 (830 years)	0.010 (1,000 years)
Ecologically Sensitive Areas	55.4	0.060 (170 years)	0.006 (1,700 years)	0.035 (290 years)	0.011 (910 years)	0.008 (1,250 years)

[1]The amount of pipe located within HCAs was quantified by geographical information system (GIS) and was based on the intersection of a 1,000-foot-wide corridor (centered on the pipeline route) and USDOT-defined HCAs.

4.3.2 Drinking Water

Surface water USAs identified for their potential as a drinking water resource have a 5-mile buffer placed around their intake location. The groundwater USAs have buffers that vary in size. These buffers are designated by the state's source water protection program or their wellhead protection program and the buffer sizes vary from state to state.

Isolated segments of the Keystone Pipeline Project cross areas that are considered HCAs by the USDOT due to potential risks to sensitive drinking water resources (**Table 4-13**). These areas are scattered throughout both the Keystone Mainline and Cushing Extension Pipeline routes. Keystone will conduct a more thorough evaluation to identify HCAs associated with sensitive drinking water resources. HCA will be subject to higher levels of inspection, as per 49 CFR Part 195. Keystone will evaluate the location of valves as a measure to reduce potential risk to highly sensitive drinking water resources.

4.3.3 Ecologically Sensitive Areas

Portions of the Keystone Pipeline Project cross areas that are considered HCAs by the USDOT due to potential risks to ecologically sensitive resources (**Table 4-13**). These areas are generally associated with major river systems (e.g., Missouri, Platte, and Mississippi Rivers) and the Flint Hills

in central Kansas. As with other HCAs, these locations will be subject to higher levels of inspection, as per 49 CFR Part 195, in order to reduce the probability of pipeline incident.

4.3.4 Distribution of Risk Among HCAs

In this initial assessment, it has been presumed that risk is distributed evenly across the pipeline route. However, risk of a spill tends to concentrate in some areas more than others due to differences in hydraulic gradients, numbers of roads, and other factors (**Appendix A**). Spill frequency and volume was calculated for 1,314 individual segments and two throughput cases.

When the throughput is 435,000 bpd, 25 percent of the overall spill risk predicted for the pipeline is contained within 82 segments (representing 13 percent of the pipeline system length). Within these 82 segments, there are 0.1 mile located within highly populated areas, 0.0 mile within ecologically sensitive areas, and 11.6 miles located within drinking water HCAs.

Similarly, the top 59 segments (representing 9 percent of the pipeline system length) account for 25 percent of the overall spill risk predicted for the pipeline when the throughput is 591,000 bpd. Within these 59 segments, there are 0.0 miles located within highly populated areas, 0.0 mile within ecologically sensitive areas, and 4.3 miles located within drinking water HCAs.

To protect these sensitive resources, HCAs would be subject to a higher level of inspection per USDOT regulations. Federal regulations require periodic assessment of the pipe condition and correction of identified anomalies within HCAs. In compliance with federal regulations, Keystone will develop management and analysis processes that integrate available integrity-related data and information and assess the risks associated with segments that can affect HCAs. Furthermore, Keystone will implement additional risk control measures if needed to protect HCAs. Examples of these additional measures may include: enhanced damage prevention programs, reduced inspection intervals, corrosion control program improvements, leak detection system enhancements, installation of EFRDs, and emergency preparedness improvements.

5.0 Keystone's Pipeline Safety Program

Pipelines are one of the safest forms of crude oil transportation. The Keystone Pipeline system will be designed, constructed and maintained in a manner that meets or exceeds industry standards. All pipelines will be built within an approved ROW and highly visible signs will be installed at all road, railway, and water crossings indicating that a pipeline is located in the area to prevent damage or impact to the pipeline. Keystone will manage a crossing and encroachment approval system for all other operators. Keystone will ensure safety near its facilities through a combination of programs encompassing engineering design, construction, and operations; public awareness and incident prevention programs; and emergency response programs.

Historically, the most significant risk associated with operating a crude oil pipeline is the potential for third-party excavation damage. Keystone will mitigate this risk by implementing a comprehensive Integrated Public Awareness program focused on education and awareness. The cornerstone of the program encourages use of the state One-Call system before people begin excavating. Keystone's operating staff also will complete regular visual inspections of the ROW and monitor activity in the area.

Keystone will have a preventative maintenance, inspection and repair program that ensures the integrity of all its pipeline. Keystone's annual Pipeline Maintenance Program will be designed to maintain the safe operation of the pipeline system. The system will include routine visual inspections of the ROW, regular inline inspections, and collection of predictive data, underpinned by a company wide goal to ensure facilities are reliable and in service. Data collected in each year of the program will fed back into the decision making process for the development of the following year's program, which aids in facilitating a safe pipeline system. The pipeline system will be monitored 24 hours a day, 365 days a year.

In compliance with applicable regulations governing the operation of pipelines, periodic in-line inspections will be conducted to collect information on the status of pipe for the entire length of the system. In-line inspection represents the state-of-the-art methodology to detect internal and external corrosion, a major cause of pipeline spills. From this type of inspection, suspected areas of corrosion or other types of damage (e.g., scratch in the pipe from third-party excavation damage) can be identified and proactively repaired. Additional types of information collected along the pipeline will include cathodic protection readings, geotechnical investigations, aerial patrol reports and routine investigative digs. In addition, line patrol, leak detection systems, supervisory control and data acquisition (SCADA), fusion bond epoxy coating and construction techniques with associated quality control will be implemented.

Keystone will carry out routine visual inspections and other operating activities with an awareness of pipeline and facility safety, and the prevention of unauthorized trespass or access.

Keystone will have an Emergency Response Program in place to manage a variety of events. Human health and the environment are of the utmost importance to the Keystone in these types of situations. Risk assessment is an iterative process. As additional engineering and design information and refinements become available, Keystone will update its risk assessment and submit the updated assessment in an expected November 2006 filling with the Department of State.

In summary, the analysis shows that the frequency of incidents is low and the environmental consequences would likely be nominal. In addition, compliance with regulations, use of state-of-the-art inspection methodology and adherence to safety procedures will help to ensure environmentally sound and safe operation of the pipeline.

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7.0 Glossary

Accidental Release

An accidental release is an unplanned occurrence that results in a release of oil or natural gas from the pipeline.

Acute exposure

Exposure to a chemical or situation for a short period of time.

Acute toxicity

The ability of a substance to cause severe biological harm or death soon after a single exposure or dose.

Adverse effect

Any effect that causes harm to the normal functioning of plants or animals due to exposure to a substance (i.e., a chemical contaminant).

Algae

Chiefly aquatic, eucaryotic one-celled or multicellular plants without true stems, roots and leaves that are typically autotrophic, photosynthetic, and contain chlorophyll. They are food for fish and small aquatic animals.

Aquifer

An underground layer of water-bearing permeable rock, or unconsolidated materials (gravel, sand, silt or clay) from which groundwater can be usefully extracted using a water well.

Barrel

A barrel is a standard measure of a volume of oil and is equal to 42 gallons.

Benthic invertebrates

Those animals without backbones that live on or in the sediments of a lake, pond, river, etc.

Bioavailability

How easily a plant or animal can take up a particular contaminant from the environment.

Biodegradation

Biodegradation is the breakdown of organic contaminants by microbial organisms into smaller compounds. The microbial organisms transform the contaminants through metabolic or enzymatic processes. Biodegradation processes vary greatly, but frequently the final product of the degradation is carbon dioxide or methane.

Blue Barrel (bbl)

In the late 1800's Standard Oil began manufacturing 42 gallon barrels painted blue for the express purpose of transporting petroleum. This blue barrel became the standard in industry. Hence, the abbreviation bbl for 1 barrel of oil.

BPD

Abbreviation for barrels per day

Cathodic Protection System

A technique to provide corrosion protection to a metal surface by making the surface of the metal object the cathode of an electrochemical cell. In the pipeline industry that is done using impressed current. Impressed current Cathodic Protection (ICCP) systems use an anode connected to a DC power source (a cathodic protection rectifier).

Chronic toxicity

The capacity of a substance to cause long-term poisonous health effects in humans, animals, fish, and other organisms. Biological tests that use sublethal effects such as abnormal development, growth, and reproduction, rather than solely lethality, as endpoints.

Contaminant

Any physical, chemical, biological, or radiological substance found in air, water, soil or biological matter that has a harmful effect on plants or animals; harmful or hazardous matter introduced into the environment.

Ecosystem

The sum of all the living plants and animals, their interactions, and the physical components in a particular area.

Emergency Flow Restricting Device (EFRD)

An emergency flow-restricting device is a device used to restrict or limit the amount of oil or gas that can release out of a leak or break in a pipeline. Check valves and remote control valves are types of EFRDs.

Exposure

How a biological system (i.e., ecosystem), plant, or animal comes in contact with a chemical.

Event

An event is a significant occurrence or happening. As applicable to pipeline safety, an event could be an accident, abnormal condition, incident, equipment failure, human failure, or release.

Facility

Any structure, underground or above used to transmit a product.

Failure Frequency

Failure frequency is the rate at which failures are observed or are predicted to occur, expressed as events per given timeframe.

Failure Probability

Failure probability is the probability that a structure, device, equipment, system, etc. will fail on demand or will fail in a given time interval, expressed as a value from 0 to 1.

Failure Rate

Failure rate is the rate at which failures occur. It is the number of failure events that occur divided by the total elapsed operating time during which those events occur or by the total number of demands, as applicable.

Geographical Information System (GIS)

A computer data system for creating and managing spatial data and associated attributes.

Habitat

The place where a population of plants or animals and its surroundings are located, including both living and non-living components.

High Consequence Area (HCA)

A high consequence area is a location that is specially defined in pipeline safety regulations as an area where pipeline releases could have greater consequences to health and safety or the environment. For oil pipelines, HCAs include high population areas, other population areas, commercially navigable waterways and areas unusually sensitive to environmental damage. Regulations require a pipeline operator to take specific steps to ensure the integrity of a pipeline for which a release could affect an HCA and, thereby, the protection of the HCA.

High Population Area (HPA)

A high population area is an urbanized area, as defined and delineated by the U.S. Census Bureau, which contains 50,000 or more people and has a population density of at least 1,000 people per square mile. High population areas are considered HCAs.

Incident

As used in pipeline safety regulations, an incident is an event occurring on a pipeline for which the operator must make a report to the Office of Pipeline Safety. There are specific reporting criteria that define an incident that include the volume of the material released, monetary property damage, injuries, and fatalities (Reference 49 CFR 191.3, 49CFR 195.50).

Integrity Management Program

An integrity management program is a documented set of policies, processes, and procedures that are implemented to ensure the integrity of a pipeline. An oil pipeline operator's Integrity Management Program must comply with the federal regulations (i.e., the Integrity Management Rule, 49 CFR 195).

Integrity Management Rule

The Integrity Management Rule specifies regulations to assess, evaluate, repair, and validate the integrity of gas transmission lines that, in the event of a leak or failure, could affect HCAs.

Invertebrates

Animals without backbones: e.g., insects, spiders, crayfish, worms, snails, mussels, clams, etc.

LC_{50}

A concentration expected to be lethal to 50 percent of a group of test organisms.

Leak

A leak is a small opening, crack, or hole in a pipeline allowing a release of oil or gas.

Likelihood

Likelihood refers to the probability that something possible may occur. The likelihood may be expressed as a frequency (e.g., events per year), a probability of occurrence during a time interval (e.g., annual probability), or a conditional probability (e.g., probability of occurrence, given that a precursor event has occurred).

Maximum Contaminant Level (MCL)

The maximum level of a contaminant allowed in drinking water by federal or state law. Based on health effects and currently available treatment methods.

National Pipeline Mapping System (NPMS)

The National Pipeline Mapping System is a GIS database that contains the locations and selected attributes of natural gas transmission lines, hazardous liquid trunklines, and liquefied natural gas (LNG) facilities operating in onshore and offshore territories of the United States.

One-Call System

A one-call system is a system that allows excavators (individuals, professional contractors, and governmental organizations) to make one telephone call to underground facility operators to provide notification of their intent to dig. The facility operators or, in some cases, the one-call center can then locate the facilities before the excavation begins so that extra care can be taken to avoid damaging the facilities. All 50 states within the U.S. are covered by one-call systems. Most states have laws requiring the use of the one-call system at least 48 hours before beginning an excavation.

Operator

An operator is a person who engages in the transportation of gas (Reference 49 CFR 192.3) or a person who owns or operates pipeline facilities (Reference 49 CFR 195.2).

Polycyclic Aromatic Hydrocarbons (PAHs)

Group of organic chemicals.

Pipeline

Used broadly, pipeline includes all parts of those physical facilities through which gas, hazardous liquid, or carbon dioxide moves in transportation. Pipeline includes but is not limited to: line pipe, valves and other appurtenances attached to the pipe, pumping/compressor units and associated fabricated units, metering, regulating, and delivery stations, and holders and fabricated assemblies located therein, and breakout tanks.

Playa Lake

A rain-filled small, round depression in the surface of the ground.

Prairie Pothole

Water-holding depressions of glacial origin in the prairies of northern United States and southern Canada. Water is supplied by rainfall, basin runoff and seepage inflow of groundwater.

Receptor

The species, population, community, habitat, etc. that may be exposed to contaminants.

Risk

Risk is a measure of both the likelihood that an adverse event could occur and the magnitude of the expected consequences should it occur.

Sediment

The material of the bottom of a body of water (i.e., pond, river, stream, etc.).

Stressor

Any factor that may harm plants or animals; includes chemical (e.g. metals or organic compounds), physical (e.g. extreme temperatures, fire, storms, flooding, and construction/development) and biological (e.g. disease, parasites, depredation, and competition).

Supervisory Control and Data Acquisition System (SCADA)

A SCADA is a pipeline control system designed to gather information such as pipeline pressures and flow rates from remote locations and regularly transmit this information to a central control facility where the data can be monitored and analyzed.

Throughput

Amount of oil through a pipeline during a specified time.

Toxicity Testing

A type of test that studies the harmful effects of chemicals on particular plants or animals.

Toxicity Threshold

Numerical values that represent concentrations of contaminants in abiotic media (sediments, water, soil) or tissues of plants and animals above which those contaminants are expected to cause harm.

Unusually Sensitive Areas (USAs)

A USA is a drinking water or ecological resource area that is unusually sensitive to environmental damage from a hazardous liquid pipeline release, as defined in 49CFR 195.6.

Zooplankton

Small, usually microscopic animals (such as protozoans) found in lakes and reservoirs.

Appendix M

Specific Practices of the Pertinent Natural Resources Conservation Service Field Office Technical Guides

(Note: This appendix is Table 1, taken directly from Data Response #2, submitted by TransCanada Keystone Pipeline, L.P. to the Department of State in the Application for Presidential Permit on April 4, 2007.)

Soils: Item 2

Data Request:

List by state and county the specific practices of the pertinent NRCS Field Office Technical Guide (Section IV) that would be followed during construction, operation, and maintenance of the proposed pipeline.

Response:

Keystone is reviewing the NRCS Field Office Technical Guides (Section IV) for relevant conservation and reclamation practices, and will conform to district guidelines as they apply to the project.

Based on information compilation from Technical Guides, Keystone will develop a comprehensive conservation and reclamation document for the construction, operation and maintenance of the proposed pipeline. Table 1 includes the requirements identified to date.

Table 1: Specific Practices of the pertinent NRCS Field Office Technical Guide

State	Document Title	Summary
North Dakota	NRCS ND Conservation Practice Standard and Specifications Critical Planting (342)	General guidelines for planting vegetation on critical areas. Includes information on seeding rates and quality, seedbed preparation, and soil amendments and stabilization. NRCS recommends using the critical area planting practice for reclamation.
North Dakota	NRCS ND Conservation Practice Standard and Specifications Mulching (484)	Standards and specifications for mulching after seeding has occurred. Covers criteria, purposes, guidance, operation and maintenance for mulching.
North Dakota	NRCS ND Conservation Practice Standard Range Planting (550)	Outlines general guidelines used for range (native) plantings. Used by NRCS to define overall intent of the practice.
North Dakota	NRCS ND Conservation Practice Standard Pasture and Hay Planting (512)	Outlines general guidelines for forage plantings. Used by NRCS to define overall intent of the practice.
North Dakota	NRCS ND Conservation Practice Standard Riparian Herbaceous Cover (390)	Outlines general guidelines for the protection of habitats for aquatic, semi-aquatic and terrestrial species through streambank and shoreline stabilization and water quality management techniques.

Soils: Item 2

Table 1: Specific Practices of the pertinent NRCS Field Office Technical Guide

State	Document Title	Summary
North Dakota	NRCS ND Conservation Practice Standard Salinity and Sodic Soil Management (610)	Outlines general guidelines for the management of land, water, and plants to control and minimize accumulations of salts and/or sodium on the soil surface. This technical guide may aid in the development of strategies to maximize post-construction ROW revegetation success in areas with high sodic and/or saline concentrations.
North Dakota	NRCS Conservation Practice Standard Stream Crossing (578)	General guidelines for constructing and improving stream crossings to improve water quality, reduce streambank and streambed erosion and provide access across the stream. Provides criteria for various types, considerations, operation and maintenance.
North Dakota	NRCS Conservation Practice Standard Wetland Restoration (657)	Provides general guidelines to rehabilitate wetlands to a close approximation of the original natural condition prior to disturbance through restoring hydric soils, hydrology and native vegetation.
North Dakota	NRCS Conservation Practice Standard Channel Bank Restoration (322)	General guidelines to establish and maintain vegetation on channel banks other such similar areas. Purpose of vegetation is to stabilize streambanks, reduce erosion and sedimentation and enhance environmental quality.
South Dakota	NRCS SD Conservation Practice Standard and Specifications Critical Planting (342)	General guidelines for planting vegetation on critical areas. Includes information on seeding rates and quality, seedbed preparation, and soil amendments and stabilization. NRCS recommends using the critical area planting practice for reclamation.
South Dakota	NRCS SD Conservation Practice Standard and Specifications Mulching (484)	Standards and specifications for mulching after seeding has occurred. Covers criteria, purposes, guidance, operation and maintenance for mulching.
South Dakota	NRCS SD Conservation Practice Standard Range Planting (550)	Outlines general guidelines used for range (native) plantings. Used by NRCS to define overall intent of the practice.
South Dakota	NRCS SD Conservation Practice Standard Pasture and Hay Planting (512)	Outlines general guidelines for forage plantings. Used by NRCS to define overall intent of the practice.
South Dakota	NRCS SD Conservation Practice Standard Riparian Herbaceous Cover (390)	Outlines general guidelines for the protection of habitats for aquatic, semi-aquatic and terrestrial species through streambank and shoreline stabilization and water quality management techniques.
South Dakota	NRCS ND Conservation Practice Standard Salinity and Sodic Soil Management (610)	Outlines general guidelines for the management of land, water, and plants to control and minimize accumulations of salts and/or sodium on the soil surface. This technical guide may aid in the development of strategies to maximize post-construction ROW revegetation success in areas with high sodic and/or saline concentrations.

Soils: Item 2

Table 1: Specific Practices of the pertinent NRCS Field Office Technical Guide

State	Document Title	Summary
South Dakota	NRCS Conservation Practice Standard Stream Crossing (578)	General guidelines for constructing and improving stream crossings to improve water quality, reduce streambank and streambed erosion and provide access across the stream. Provides criteria for various types, considerations, operation and maintenance.
South Dakota	NRCS Conservation Practice Standard Wetland Restoration (657)	Provides general guidelines to rehabilitate wetlands to a close approximation of the original natural condition prior to disturbance through restoring hydric soils, hydrology and native vegetation.
South Dakota	NRCS Conservation Practice Standard Channel Bank Restoration (322)	General guidelines to establish and maintain vegetation on channel banks other such similar areas. Purpose of vegetation is to stabilize streambanks, reduce erosion and sedimentation and enhance environmental quality.
Nebraska	NRCS NE Conservation Practice Standard and Specifications Critical Planting (NE 342)	General guidelines for planting vegetation on critical areas. Includes information on seeding rates and quality, seedbed preparation, and soil amendments and stabilization. NRCS recommends using the critical area planting practice for reclamation.
Nebraska	NRCS NE Critical Planting Design Procedure (NE 342DP)	Provides specific requirements for stabilizing critical areas in Nebraska. It outlines various revegetation aspects such as seedbank preparation, site shaping, seeding methods, dates, rates, mixtures, weed control, mulching, and site maintenance.
Nebraska	NRCS NE Conservation Practice Standard Range Planting (NE 550)	Outlines general guidelines used for range (native) plantings. Used by NRCS to define overall intent of the practice.
Nebraska	NRCS NE Range Planting Specification (NE 550S)	Provides specific requirements for seed mixtures, seeding methods, rates, dates, depths, etc. by NE vegetation zones and site types. Goal of this document was to provide specifications for revegetation with respect to restoring communities to their historic climax form and function. Map included with vegetation zones.
Nebraska	University of Nebraska Guide for Weed Management in Nebraska	Guide for weed management developed by the University of Nebraska and used by the NRCS for technical guidance.
Nebraska	Pure Live Seed Calculations	Seeding rate information for several plant species in NE. Provides an overview of how NRCS calculates seed mixtures and seeding requirements in NE.
Nebraska	Nebraska Noxious Weed List	List of state regulated noxious weeds that need to be controlled in the pipeline corridor
Nebraska	Seeding Recommendations	Seeding recommendations to restore plant communities similar to historic climax for the counties in the project area.
Nebraska	NRCS NE Conservation Practice Standard Riparian Herbaceous Cover (390)	Outlines general guidelines for the protection of habitats for aquatic, semi-aquatic and terrestrial species through streambank and shoreline stabilization and water quality management techniques.

Soils: Item 2

Table 1: Specific Practices of the pertinent NRCS Field Office Technical Guide

State	Document Title	Summary
Nebraska	NRCS ND Conservation Practice Standard Salinity and Sodic Soil Management (610)	Outlines general guidelines for the management of land, water, and plants to control and minimize accumulations of salts and/or sodium on the soil surface. This technical guide may aid in the development of strategies to maximize post-construction ROW revegetation success in areas with high sodic and/or saline concentrations.
Nebraska	NRCS Conservation Practice Standard Wetland Restoration (657)	Provides general guidelines to rehabilitate wetlands to a close approximation of the original natural condition prior to disturbance through restoring hydric soils, hydrology and native vegetation.
Nebraska	NRCS Conservation Practice Standard Channel Bank Restoration (322)	General guidelines to establish and maintain vegetation on channel banks other such similar areas. Purpose of vegetation is to stabilize streambanks, reduce erosion and sedimentation and enhance environmental quality.
Kansas	List of Noxious Weeds present in the four impacted counties	List of 4 weeds most prevalent in disturbed areas in the four impacted counties. Contact county weed supervisor for specific control methods.
Kansas	NRCS KS Conservation Practice Standard and Specifications Critical Planting (342)	Contains seed, fertilizer and seedbed preparation information. Noted, that in four impacted counties, both cool and warm season grass species are present.
Kansas	List of CRP lands	Needed: List of Conservation Reserve Program (CRP) lands present in the pipeline corridor.
Kansas	List of EQIP lands	Needed: List of Environmental Quality Incentives Program (EQIP) lands present in the pipeline corridor.
Kansas	List of WHIP lands	Needed: List of Wildlife Habitat Incentives Program (WHIP) lands present in the pipeline corridor.
Kansas	NRCS NE Conservation Practice Standard Riparian Herbaceous Cover (390)	Outlines general guidelines for the protection of habitats for aquatic, semi-aquatic and terrestrial species through streambank and shoreline stabilization and water quality management techniques.
Kansas	NRCS ND Conservation Practice Standard Salinity and Sodic Soil Management (610)	Outlines general guidelines for the management of land, water, and plants to control and minimize accumulations of salts and/or sodium on the soil surface. This technical guide may aid in the development of strategies to maximize post-construction ROW revegetation success in areas with high sodic and/or saline concentrations.
Kansas	NRCS Conservation Practice Standard Stream Crossing (578)	General guidelines for constructing and improving stream crossings to improve water quality, reduce streambank and streambed erosion and provide access across the stream. Provides criteria for various types, considerations, operation and maintenance.
Kansas	NRCS Conservation Practice Standard Wetland Restoration (657)	Provides general guidelines to rehabilitate wetlands to a close approximation of the original natural condition prior to disturbance through restoring hydric soils, hydrology and native vegetation.

Soils: Item 2

Table 1: Specific Practices of the pertinent NRCS Field Office Technical Guide

State	Document Title	Summary
Kansas	NRCS Conservation Practice Standard Channel Bank Restoration (322)	General guidelines to establish and maintain vegetation on channel banks other such similar areas. Purpose of vegetation is to stabilize streambanks, reduce erosion and sedimentation and enhance environmental quality.
Illinois	NRCS IL Conservation Practice Standard and Specifications Critical Planting (342)	General guidelines for planting vegetation on critical areas. Includes information on seeding rates and quality, seedbed preparation, and soil amendments and stabilization. NRCS recommends using the critical area planting practice for reclamation.
Illinois	NRCS IL Conservation Practice Standard and Specifications Mulching (484)	Standards and specifications for mulching after seeding has occurred. Covers criteria, purposes, guidance, operation and maintenance for mulching.
Illinois	NRCS IL Conservation Practice Standard Pasture and Hay Planting (512)	Outlines general guidelines for forage plantings. Used by NRCS to define overall intent of the practice.
Illinois	NRCS NE Conservation Practice Standard Riparian Herbaceous Cover (390)	Outlines general guidelines for the protection of habitats for aquatic, semi-aquatic and terrestrial species through streambank and shoreline stabilization and water quality management techniques.
Illinois	NRCS ND Conservation Practice Standard Salinity and Sodic Soil Management (610)	Outlines general guidelines for the management of land, water, and plants to control and minimize accumulations of salts and/or sodium on the soil surface. This technical guide may aid in the development of strategies to maximize post-construction ROW revegetation success in areas with high sodic and/or saline concentrations.
Illinois	NRCS Conservation Practice Standard Stream Crossing (578)	General guidelines for constructing and improving stream crossings to improve water quality, reduce streambank and streambed erosion and provide access across the stream. Provides criteria for various types, considerations, operation and maintenance.
Illinois	NRCS Conservation Practice Standard Wetland Restoration (657)	Provides general guidelines to rehabilitate wetlands to a close approximation of the original natural condition prior to disturbance through restoring hydric soils, hydrology and native vegetation.
Missouri	Missouri Noxious Weed List	List of state regulated noxious weeds that need to be controlled in the pipeline corridor
Missouri	Missouri Reclamation Guidance	Covers types of vegetation expected to be encountered in Missouri; the vegetation types that need to reseeded, required seed mixes for various vegetation types; steps for reseeding an area; mulching; operation and maintenance requirements.
Missouri	NRCS MO Conservation Practice Standard and Specifications Critical Planting (342)	General guidelines for planting vegetation on critical areas. Includes information on seeding rates and quality, seedbed preparation, and soil amendments and stabilization. NRCS recommends using the critical area planting practice for reclamation.

Soils: Item 2

Table 1: Specific Practices of the pertinent NRCS Field Office Technical Guide

State	Document Title	Summary
Missouri	NRCS MO Conservation Practice Standard and Specifications Mulching (484)	Standards and specifications for mulching after seeding has occurred. Covers criteria, purposes, guidance, operation and maintenance for mulching.
Missouri	NRCS Conservation Practice Standard Stream Crossing (578)	General guidelines for constructing and improving stream crossings to improve water quality, reduce streambank and streambed erosion and provide access across the stream. Provides criteria for various types, considerations, operation and maintenance.
Missouri	NRCS Conservation Practice Standard Wetland Restoration (657)	Provides general guidelines to rehabilitate wetlands to a close approximation of the original natural condition prior to disturbance through restoring hydric soils, hydrology and native vegetation.
Oklahoma	Noxious Weed Species List and Probable Occurrence Information	Provided in response letter from NRCS Oklahoma office. Lists the species on the Oklahoma Noxious Weed List and the species present in impacted counties that are on Oklahoma noxious weed list.
Oklahoma	NRCS OK Conservation Practice Standard and Specifications Critical Planting (342)	Standards and Specifications for planting vegetation on critical areas. Includes information on seeding rates and quality, seedbed preparation, and soil amendments and stabilization.
Oklahoma	NRCS OK Conservation Practice Standard and Specifications Mulching (484)	Standards and specifications for mulching (applying plant residue or other suitable materials to the soil surface) after seeding has occurred. Covers criteria for mulching, purposes of mulching, guidance and operation and maintenance. Included are a table detailing mulch materials, rates and uses and a table listing mulch anchoring methods and materials.
Oklahoma	NRCS OK Conservation Practice Standard Range Planting (550)	Outlines general guidelines used for range (native) plantings. Used by NRCS to define overall intent of the practice.
Oklahoma	NRCS OK Conservation Practice Standard Pasture and Hay Planting (512)	Outlines general guidelines for forage plantings. Used by NRCS to define overall intent of the practice.

Definitions:

Critical areas: Areas that have or are expected to have high erosion rates, and on sites that have physical, chemical or biological conditions that prevent the establishment of vegetation with normal practices.

Mulching: Applying plant residues, by-products, or other suitable materials produced off-site and applied to the land surface.

Appendix N

Conflict of Interest Statements

OCI Representation Statement

Name of Person or Organization: ENTRIX, Inc.

I hereby certify (or as a representative of my organization, I hereby certify) that, to the best of my knowledge and belief, no facts exist relevant to any past, present or currently planned interest or activity (financial, contractual, personal, organizational or otherwise) that relate to the proposed work; and bear on whether I have (or the organization has) a possible conflict of interest with respect to (1) being able to render impartial, technically sound, and objective assistance or advice; or (2) being given an unfair competitive advantage.

Signature:  Date: August 3, 2006

Name: Kevin Freeman

Organization: ENTRIX, Inc.

Title: Senior Vice President

ATTACHMENT "B1"
OCI REPRESENTATION STATEMENT

Name of Person or Organization: Osprey Environmental Consulting

I hereby certify (or as a representative of my organization, I hereby certify) that, to the best of my knowledge and belief, no facts exist relevant to any past, present or currently planned interest or activity (financial, contractual, personal, organizational or otherwise) that relate to the proposed work; and bear on whether I have (or the organization has) a possible conflict of interest with respect to (1) being able to render impartial, technically sound, and objective assistance or advice; or (2) being given an unfair competitive advantage[1]

Signature: Peter M Hendricks Date: July 30, 2006

Name: Peter M Hendricks

Organization: Osprey Environmental Consulting

Title: President

[1] An unfair competitive advantage does not include the normal flow of benefits from the performance of the contract.

ATTACHMENT "B1"
OCI REPRESENTATION STATEMENT

Name of Person or Organization: R. Christopher Goodwin & Associates, Inc.

I hereby certify (or as a representative of my organization, I hereby certify) that, to the best of my knowledge and belief, no facts exist relevant to any past, present or currently planned interest or activity (financial, contractual, personal, organizational or otherwise) that relate to the proposed work; and bear on whether I have (or the organization has) a possible conflict of interest with respect to (1) being able to render impartial, technically sound, and objective assistance or advice; or (2) being given an unfair competitive advantage[1]

Signature: _____ Date: July 31, 2006

Name: Robert W. Noel, Jr.

Organization: R. Christopher Goodwin & Associates, Inc.

Title: Senior Vice President and Chief Financial Officer

[1] An unfair competitive advantage does not include the normal flow of benefits from the performance of the contract.

ENTRIX
ENVIRONMENTAL CONSULTANTS

OCI Questionnaire

Name of Person or Organization: ENTRIX, Inc.

1. Will you (or your organization) be involved in the performance of any portion of the proposed work under this solicitation?

☐ No.

☒ Yes. The portion of the proposed work; the proposed hours and dollar value; and the type of involvement are fully disclosed on the attached pages.

2. What is (are) the major type(s) of business conducted by you (or your organization)? Please reply on the attached pages.

3. Do you (or your organization) have any affiliates?

☐ No.

☒ Yes. The name and a description of the major type(s) of businesses that each affiliate conducts are disclosed on the attached pages.

4. Will any of the following be involved in performing the proposed work: (a) any entities owned or represented by you (or your organization); (b) your organization's Chief Executive or any of its directors; or (c) any affiliates?

☒ No.

☐ Yes. A full disclosure and discussion is given in the attached pages.

5. Are you (or your organization) an energy concern?

☒ No.

☐ Yes. A full disclosure and discussion is given in the attached pages.

6. Do you (or your organization) have a direct or indirect relationship (financial, organizational, contractual or otherwise) with any business entity that could be affected in any way by the proposed work under this solicitation?

Your Name or Organization: ENTRIX, Inc.

☒ No.

☐ Yes. List the business entity (ies) showing the nature of your relationship and how it would be affected by the proposed work.

7. What percentage of your total income for the current and preceding fiscal years resulted from arrangements with any of the entities identified in Question 6 above?

0% For the current fiscal year - from / / to / / .

0% For the preceding fiscal year - from / / to / / .

8. Do you (or your organization) currently have or have you had during the last 6 years any arrangements (for example, contracts and cooperative agreements) awarded, administered, or funded wholly or partly by the Commission or any other Federal agency which relate to the proposed Statement of Work?

☒ No.
☐ Yes. A full disclosure and discussion is given in the attached pages.

9. Do you (or your organization) have or have you ever had any contracts, agreements, special clauses, or other arrangements which prohibit you (or your organization) from proposing work to be performed in this solicitation or any portion thereof.

☒ No.

☐ Yes. A full disclosure and discussion is given in the attached pages.

10. Do you (or your organization) have any involvement with or interest (direct or indirect) in technologies, which are or may be subjects of the contract, or which maybe substitutable for such technologies?

☒ No.

☐ Yes. A full disclosure and discussion is given in the attached pages.

11. Could you (or your organization) in either your private or Federal Government business pursuits use information acquired in the performance of the proposed work; such as:

A. Data generated under the contract?

B. Information concerning Commission plans and programs?

C. Confidential and proprietary data of others?

☒ No.

☐ Yes. A full disclosure and discussion is given in the attached pages.

12. Under the proposed work, will you (or your organization) evaluate or inspect your own services or products, or the services or products of any other entity that has a relationship (such as client, organizational, financial, or other) with you (or your organization)? This could include evaluating or inspecting a competitor's goods and services.

☒ No.

☐ Yes. A full disclosure and discussion is given in the attached pages.

13. To avoid what you perceive as a possible organizational conflict of interest, do you (or your organization) propose to: exclude portions of the proposed work; employ special clauses; or take other measures?

☒ No.

ENTRIX
ENVIRONMENTAL CONSULTANTS

☐ Yes. A full discussion is given in the attached pages. No possibility of an organizational conflict of interest is perceived. This answer is briefly justified on the attached pages.

I hereby certify that I have authority to represent my organization, if applicable, and that -- to the best of my knowledge and belief -- the facts and representations presented on the three pages of this questionnaire and on the 1 page of the attachment to it are accurate and complete.

Signature: 
Date: August 3, 2006
Name: Kevin Freeman
Organization: ENTRIX, Inc.
Title: Senior Vice President and Manager, Pacific Northwest Region

OCI Questionnaire – Additional Information

ENTRIX, Inc. –

1. The services to be provided are to assist the DOS in preparation of an Environmental Impact Statement for the Keystone Project. The cost estimate has been provided to Keystone Energy Gas Transmission.
2. ENTRIX, Inc. is an Environmental Consulting firm.
3. ENTRIX affiliates are:
   - ENTRIX Bolivia Limited – Environmental Consulting
   - ENTRIX Americas SA – Environmental Consulting
   - ENTRIX Canada Limited – Environmental Consulting
   - EMS Works – Environmental Management Software

ATTACHMENT "C"
OCI QUESTIONNAIRE

Name of Person or Organization: Osprey Environmental Consulting

1. Will you (or your organization) be involved in the performance of any portion of the proposed work?

   (X) No.
   ( ) Yes. The portion of the proposed work; the proposed hours and dollar value; and the type of involvement are fully disclosed on the attached pages.

2. What is (are) the major type(s) of business conducted by you (or your organization)? Please reply on the attached pages.

3. Do you (or your organization) have any affiliates?[1]

   (X) No.
   ( ) Yes. The name and a description of the major type(s) of business that each affiliate conducts is disclosed on the attached pages.

4. Will any of the following be involved in performing the proposed work: (a) any entities owned or represented by you (or your organization); (b) your organization's Chief Executive or any of its directors; or (c) any affiliates?[1]

   (X) No.
   ( ) Yes. A full disclosure and discussion is given in the attached pages.

5. Are you (or your organization) an energy concern?[1]

   (X) No.
   ( ) Yes. A full disclosure and discussion is given on the attached pages.

6. Do you (or your organization) have a direct or indirect relationship (financial, organizational, contractual or otherwise) with any business entity that could be affected in any way by the proposed work?

   (X) No.
   ( ) Yes. List the business entity(ies) showing the nature of your relationship and how it would be affected by the proposed work.

---

[1] See Definitions in Attachment 3.

7. What percentage of your total income for the current and preceding fiscal years resulted from arrangements with any of the entities identified in Question 6 above? Not Applicable

0 % For the current fiscal year -- from _____ to _____.
0 % For the preceding fiscal year -- from _____ to _____.

8. Do you (or your organization) currently have or have you had during the last 6 years any arrangements (for example, contracts and cooperative agreements) awarded, administered, or funded -- wholly or partly -- by the Commission or any other Federal agency which relate to the proposed Statement of Work?

X No.
( ) Yes. A full disclosure and discussion is given on the attached pages.

9. Do you (or your organization) have or have you ever had any contracts, agreements, special clauses, or other arrangements which prohibit you (or your organization) from proposing work to be performed in this solicitation or any portion thereof?

X No.
( ) Yes. A full disclosure and discussion is given on the attached pages.

10. Do you (or your organization) have any involvement with or interest (direct or indirect) in technologies which are or may be subjects of the contract, or which may be substitutable for such technologies?

X No.
( ) Yes. A full disclosure and discussion is given on the attached pages.

11. Could you (or your organization) in either your private or Federal Government business pursuits use information acquired in the performance of the proposed work; such as:

(a) Data generated under the contract?
(b) Information concerning Commission plans and programs?
(c) Confidential and proprietary data of others?

X No.
( ) Yes. A full disclosure and discussion is given on the attached pages.

12. Under the proposed work, will you (or your organization) evaluate or inspect your own services or products, or the services or products of any other entity that has a relationship (such as client, organizational, financial, or other) with you (or your organization)? This could include evaluating or inspecting a competitor's goods and services.

X No.
( ) Yes. A full disclosure and discussion is given on the attached pages.

13. To avoid what you perceive as a possible organizational conflict of interest, do you (or your organization) propose to: exclude portions of the proposed work; employ special clauses; or take other measures?

(X) No.
( ) Yes. A full discussion is given on the attached pages.
( ) No possibility of an organizational conflict of interest is perceived. This answer is briefly justified on the attached pages.

I hereby certify that I have authority to represent my organization, if applicable, and that – to the best of my knowledge and belief -- the facts and representations presented on the three pages of this questionnaire and on the 0 pages of the attachment to it are accurate and complete.

Signature: Peter M Hendricks Date: July 30, 2006

Name: Peter M. Hendricks

Organization: Osprey Environmental Consulting, Inc.

Title: President

ATTACHMENT "C"
OCI QUESTIONNAIRE

Name of Person or Organization: R. Christopher Goodwin & Associates, Inc.

1. Will you (or your organization) be involved in the performance of any portion of the proposed work?

   (X) No.
   ( ) Yes. The portion of the proposed work; the proposed hours and dollar value; and the type of involvement are fully disclosed on the attached pages.

2. What is (are) the major type(s) of business conducted by you (or your organization)? Please reply on the attached pages.

3. Do you (or your organization) have any affiliates?[1]
   (X) No.
   ( ) Yes. The name and a description of the major type(s) of business that each affiliate conducts is disclosed on the attached pages.

4. Will any of the following be involved in performing the proposed work: (a) any entities owned or represented by you (or your organization); (b) your organization's Chief Executive or any of its directors; or (c) any affiliates?[1]

   (X) No.
   ( ) Yes. A full disclosure and discussion is given in the attached pages.

5. Are you (or your organization) an energy concern?[1]

   (X) No.
   ( ) Yes. A full disclosure and discussion is given on the attached pages.

6. Do you (or your organization) have a direct or indirect relationship (financial, organizational, contractual or otherwise) with any business entity that could be affected in any way by the proposed work?
   (X) No.
   ( ) Yes. List the business entity(ies) showing the nature of your relationship and how it would be affected by the proposed work.

---

[1] See Definitions in Attachment 3.

7. What percentage of your total income for the current and preceding fiscal years resulted from arrangements with any of the entities identified in Question 6 above?

N/A __% For the current fiscal year -- from _____ to _____.
N/A __% For the preceding fiscal year -- from _____to _____.

8. Do you (or your organization) currently have or have you had during the last 6 years any arrangements (for example, contracts and cooperative agreements) awarded, administered, or funded -- wholly or partly -- by the Commission or any other Federal agency which relate to the proposed Statement of Work?

(X) No.
( ) Yes. A full disclosure and discussion is given on the attached pages.

9. Do you (or your organization) have or have you ever had any contracts, agreements, special clauses, or other arrangements which prohibit you (or your organization) from proposing work to be performed in this solicitation or any portion thereof?

(X) No.
( ) Yes. A full disclosure and discussion is given on the attached pages.

10. Do you (or your organization) have any involvement with or interest (direct or indirect) in technologies which are or may be subjects of the contract, or which may be substitutable for such technologies?

(X) No.
( ) Yes. A full disclosure and discussion is given on the attached pages.

11. Could you (or your organization) in either your private or Federal Government business pursuits use information acquired in the performance of the proposed work; such as:
(a) Data generated under the contract?
(b) Information concerning Commission plans and programs?
(c) Confidential and proprietary data of others?

(X) No.
( ) Yes. A full disclosure and discussion is given on the attached pages.

12. Under the proposed work, will you (or your organization) evaluate or inspect your own services or products, or the services or products of any other entity that has a relationship (such as client, organizational, financial, or other) with you (or your organization)? This could include evaluating or inspecting a competitor's goods and services.

( ) No.
(X) Yes. A full disclosure and discussion is given on the attached pages.

13. To avoid what you perceive as a possible organizational conflict of interest, do you (or your organization) propose to: exclude portions of the proposed work; employ special clauses; or take other measures?

( ) No.
( ) Yes. A full discussion is given on the attached pages.
(X) No possibility of an organizational conflict of interest is perceived. This answer is briefly justified on the attached pages.

I hereby certify that I have authority to represent my organization, if applicable, and that -- to the best of my knowledge and belief -- the facts and representations presented on the three pages of this questionnaire and on the 1 page of the attachment to it are accurate and complete.

Signature: _____ Date: August 1, 2006

Name: Robert J. Lackowicz (RPA)

Organization: R. Christopher Goodwin & Associates, Inc.

Title: Senior Project Manager

APPENDIX TO ATTACHMENT "C"
OCI QUESTIONNAIRE

2. R. Christopher Goodwin & Associates, Inc. conducts cultural resource investigations, including terrestrial and nautical archeology, history, remote sensing and architectural (HABS/HAER) studies.

12. The proposed work requires the review and evaluation of one (or more) firm's cultural resource investigation results. R. Christopher Goodwin & Associates, Inc. currently, or has in the past 10 years, conducted cultural resource investigations for pipeline projects within North Dakota, South Dakota, Kansas and Illinois.

13. No possibility of an organizational conflict of interest is perceived. While R. Christopher Goodwin & Associates, Inc. has a Kansas office that conducts work in the general area of the proposed work, the project review will be headed by a registered professional archeologist (RPA) from the company's New Orleans office, which does not conduct work in the area. The review also will fully abide by the Register of Professional Archaeologists codes of conduct and ethics.

Name of Person or Organization: ENTRIX, Inc.

On behalf of ENTRIX, Inc., I certify that ENTRIX, Inc. will abide by the following terms with respect to critical infrastructure information (CII) that the company has access to because of its work for the Department of State.

- Only authorized company employees with a need for the information will be given access to CII. ENTRIX, Inc. will maintain a list of each employee who is given access to CII, including a listing of each project for which the employee has been given CII.
- ENTRIX, Inc. will not provide CII to or discuss CII with anyone outside the company, except that CII may be discussed with the DOS and other agencies as directed by the DOS, the project's owner, operator, or applicant.
- Any copies made of CII will be marked as CII and treated as CII.
- CII will be used only in performance of ENTRIX, Inc. work for the Department of State. When ENTRIX has completed work on the project, all CII will be returned to the Department of State.
- I acknowledge that a violation of this agreement may result in negative consequences and could alter ENTRIX's ability to contract with the Department of State in the future.

By: 

Title: Senior Vice President

Representing: ENTRIX, Inc.

Date: August 3, 2006

ATTACHMENT "E"
CONTRACTOR CII NON-DISCLOSURE AGREEMENT

On behalf of [*contractor name*], I certify that [*contractor name*] will abide by the following terms with respect to critical infrastructure information (CII) that the company has access to because of its work for the Department of State.

- Only authorized company employees with a need for the information will be given access to CII [contractor name] will maintain a list of each employee who is given access to CII, including a listing of each project for which the employee has been given CII.

- [*Contractor name*] will not provide CII to or discuss CII with anyone outside the company, except that CII may be discussed with the DOS and other agencies as directed by the DOS, the project's owner, operator, or applicant.

- Any copies made of CII will be marked as CII and treated as CII.

- CII will be used only in performance of [*contractor name*]'s work for the Department of State. When [*contractor name]* has completed work on the project, all CII will be returned to the Department of State.

- I acknowledge that a violation of this agreement may result in negative consequences and could alter [*contractor name*]'s ability to contract with the Department of State in the future.

By: Peter M Hendrick

Title: President

Representing: Osprey Environmental Consulting, Inc.

Date: July 30, 2006

ATTACHMENT "E"
CONTRACTOR CII NON-DISCLOSURE AGREEMENT

On behalf of R. Christopher Goodwin & Associates, Inc., I certify that R. Christopher Goodwin & Associates, Inc. will abide by the following terms with respect to critical infrastructure information (CII) that the company has access to because of its work for the Department of State.

- Only authorized company employees with a need for the information will be given access to CII. R. Christopher Goodwin & Associates, Inc. will maintain a list of each employee who is given access to CII, including a listing of each project for which the employee has been given CII.
- R. Christopher Goodwin & Associates, Inc. will not provide CII to or discuss CII with anyone outside the company, except that CII may be discussed with the DOS and other agencies as directed by the DOS, the project's owner, operator, or applicant.
- Any copies made of CII will be marked as CII and treated as CII.
- CII will be used only in performance of R. Christopher Goodwin & Associates, Inc.'s work for the Department of State. When R. Christopher Goodwin & Associates, Inc. has completed work on the project, all CII will be returned to the Department of State.
- I acknowledge that a violation of this agreement may result in negative consequences and could alter R. Christopher Goodwin & Associates, Inc.'s ability to contract with the Department of State in the future.

Signature: Robert W. Noel

Name: Robert W. Noel, Jr.

Title: Senior Vice President and Chief Financial Officer

Representing: R. Christopher Goodwin & Associates, Inc.

Date: July 31, 2006

Appendix O

List of Preparers

LIST OF PREPARERS

ENTRIX, Inc.

Ayala, Chelsea- Air Quality
B.A. Environmental Studies, Minor, Geology, California State University, Sacramento, 1992

Ban, Suzanne – Project Management
M.S., Biological Oceanography, Florida Institute of Technology, 1985
B.S. (with honor), Biology, Pennsylvania State University, 1982

Barrick, Robert- Risk Assessment, Reliability and Safety
MBA, Business-Government Interaction/Project Management, University of Washington, 1983
B.S. (cum laude), Chemistry, University of Washington, 1975
B.S. (honors, Phi Beta Kappa), Oceanography, University of Washington, 1975

Brady, Caitlin – Ecology
Master of Applied Science in Coastal Management, University of Sydney, 2007
Bachelor of Science in Applied Economics, Cornell University, 2000 (Minor, Agronomy)

Brena, Jeannette – Air Quality
M.S., Environmental Engineering, Washington State University, 1997
B.S., Civil/Environmental Engineering, Seattle University, 1996

Bunn, Jeremy – Geology, Geologic Hazards, Route Alternatives
M.S., Geological Sciences, University of Washington, 2003
B.S., Conservation & Resource Studies, UC Berkeley, 1989

Colonell, Joseph – Engineering, Project Description, Alternatives
Applied Mathematics, Stanford University, 1966
M.S., Civil Engineering & Applied Mathematics, Washington State University, 1962
B.S., 1958 Civil Engineering, University of Colorado, 1958
Fulbright Scholar – Coast Engineering, Delft Technical University, Netherlands, 1960-61

Demuth, Kimberly – Cultural Resources
M.S., Historic Preservation of Architecture, University of Oregon, Eugene, 1982
B.A., Fine Arts and Design, University of California, Santa Cruz, 1977

Dilts, Erik – Project Management
M.S., Forest Resources (Fisheries), University of Georgia, 1999
B.S., Biology, Oglethorpe University, 1995

Fleece, William – Biology

M.S., Environmental Studies, University of Oregon, Eugene: 2000
Post-baccalaureate, Environmental Studies, University of Oregon, Eugene, 1996-1997
B.S., Political Science, Ball State University, Muncie, 1990

Freeman. Kevin Project Management, Geology

M.S., Geology, Michigan State University: 1974
B.S., Geology, Michigan State University: 1971
R.G., R.E.G., Oregon
L.G., L.H.G., L.E.G., Washington

Gabel, Kevin – GPS, GIS

B.S., Geography, Oregon State University, Corvallis, 1994

Haley, John – Information Technology and Web development

M.S., Management, Computing, and Systems, Houston Baptist University, 1997
Graduate Studies, Geology, Rice University, 1986–1988
Graduate Studies, Geology, University of Florida, 1983-1986
B.S., Geology, University of Florida, 1983
B.S., Economics, University of Oregon, 1975
Undergraduate Studies, United States Air Force Academy, 1972-1974

Herkelrath, Megan – Cultural Resources

M.A., Archaeology, University of Washington, 2005
B.A., Anthropology, Whitman College, 2000

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M.S., Geography, emphasis on Environmental GIS and Remote Sensing, University of Illinois, Champaign, IL, 2002
B.A., Geography, Valparaiso University, Valparaiso, IN, 2000

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M.S. Ecology-Fisheries, San Diego State University, 1990
B.S. Biology, Memphis State University, 1987

Kyte, Michael – Biology, Oil Spill Risk

M.S., Zoology, University of Maine, 1974
B.S., Zoology, University of Washington, 1969

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B.S., Marine Biology, U.C. Santa Cruz, 2004
Certificate, Tropical Marine Ecology, ITME, 2004

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B.A., Geography-Emphasis: Environmental Studies, University of California at Santa Barbara, 2000

Montgomery, Marcia – Cultural Resources

M.A., American History, Washington State University, Pullman, 1996
B.A., History, Lewis and Clark College, Portland, OR, 1989

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M.S., Remote Sensing & Geographic Information Sc. & Technology, University of Wisconsin-Madison, 2001
M.S., Applied Geology, Indian Institute of Technology, Bombay, India, 1996
B.S., Geology, University of Bombay, Bombay, India, 1994

Nagy, Michael -Project Description & Alternatives

B.S., Natural Resources, Ball State University, Indiana, 1977
Graduate Studies in Natural Resources, Michigan State University, 1978

Nelson, Stephen – Graphics

Undergraduate Studies for B.S., Marketing California State University, East Bay, 2009.

Noel, Lynn – Wetlands, Biology

M.S., Natural Resources–Fisheries, Humboldt State University, 1988
B.S., Biology, University of Illinois, 1980

Parton, Michael- Biology, Oil Spill Risk and Impacts

B.S., Biology, (minors in Land Use Planning and Chemistry) Southern Oregon State College, 1982

Paul, Duane –Socioeconomic and Land Use

Ph.D., Agricultural Economics, University of California (Davis), 1976
M.S., Agricultural Economics, University of California (Davis), 1969
B.S., Agricultural Management, California State University, 1968

Pavich, Steve –Socioeconomics

M.S., Agricultural and Resource Economics, Oregon State University, 1999
B.A., Economics, University of California, Davis, 1994

Peters, Brenda- Socioeconomic and Land Use

M.P.A., Public Administration, California State University at San Francisco, 1985
B.A., Environmental Studies and Sociology, University of California, Santa Barbara, 1980

Peterson, David-Socioeconomic and Land Use

M.A., Urban & Regional Planning, University of Michigan , Ann Arbor, 2005
B.A., Sociology / Anthropology and Religion, Swarthmore College, 2000

Prosser, Billie Administration & Project Coordination

Undergraduate Studies for B.A., Communication and English, Hunter College, New York, in progress
A.A., St. Petersburg Junior College, St. Petersburg, FL, 1991.

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Ph.D. Urban Affairs and Public Policy. University of Delaware, 2001-2006
M.A**.** in Urban Affairs and Public Policy, specialization in Historic Preservation University of Delaware, Newark, DE, 1994-1996
B.A., Historic Preservation, Cum Laude Mary Washington College, Fredericksburg, VA., 1990-1994

Reub, Greg – Biology, Oil Spill Risk and Impacts

M.A., Ecology and Systematic Biology, San Francisco State University, 1990
B.S., Wildlife and Fisheries Science, Minor Chemistry, South Dakota State University, 1977

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Ph.D. Zoology, University of Washington, 1971
M.S. Zoology, University of Washington, 1967
B.Sc. (Honours) Biology, 1 University of Victoria, 1965

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Graduate Studies, Urban Design & Planning, University of California, Los Angeles, 1973
B.A., Architecture, California State Polytechnical University, San Luis Obispo, 1971

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Ph.D., Economics, University of Delaware, Newark, DE. 2001
M.S., Marine Biology and Biochemistry, College of Marine Studies, Lewes, DE., 1996
B.S., Biology, Rochester Institute of Technology, Rochester, NY., 1993

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B.A., Communication Design, California State University, 1990

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Appendix P

Distribution List

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Senator Tom Coburn, OK
Senator John Thune, SD
Representative Stephanie Herseth Sandlin, SD

GOVERNMENT AGENCIES

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Bureau Of Indian Affairs
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- John Worthington, S. Plains, OK
- Darin Larson, SD
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South Dakota Historical Society, SD; Paige Hoskinson, Review And Compliance Coordinator

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Terry Steinacher, Archeologist, ND	

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Dennis Rankin, Utilities Programs	

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US Department Of Health And Human Services, NE; Jack Daniel,

US Department Of Homeland Security, Anacostia Naval Annex, DC; David Reese

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- Larry T. White, DC
- Theodore L. Wilke, DC
- John Jacobi, TX
- Jeff Wiese, DC
- Karen Butler, OPS, MO

US Environmental Protection Agency, DC;

- Robert Hargrove
- Virginia Laszewski, Region 5, IL
- Richard Clark,
- Rhonda Smith, Region 6, TX
- Ken Westlake, Region 5, IL
- Joe Cothern, Region 7, NEPA Team, KS
- Steve Pratt, Region 8, CO

US Fish And Wildlife Service

- Connie Young-Dubovsky, Region 6, NEPA Coordinator, CO
- Jerry Brabander, OK
- Joyce Collins, IL
- Mark D. Howell, MO
- Michael J. Levalley, Supervisor, KS
- Peter Gober, SD
- Charles Scott, Ecological Services, MO
- Hayley Dikeman, OK
- John Cochner, NE
- Marjorie Nelson, VA
- Michael J. Horton, VA
- Michael Olson, Missouri River Coordinator, ND
- Rick Hansen, MO

Web Water Development Association, SD; Curt Hohn, General Manager

Western Area Power Administration, CO;

- Dave Swanson, CO
- Dirk Shulund, MT

LANDOWNERS AND LOCAL BUSINESSES

Alberta, Canada

Platte Pipeline Company, Calgary, Alberta

Alabama

Keith Allan Bowers Management Trust, Gardendale, AL

Mary Elizabeth Bowers Management Trust, Gardendale, AL

Arizona

Basch Company, Sun City West, AZ

California

Newark Company, Los Angeles, CA

Colorado

Rock Family Investments, CO

Toburn LLC, CO

Illinois

Allied Waste Systems, Inc, Roxana, IL

Ammann Farms Inc, Pocahontas, IL

Amoco Pipeline Company, Warrenville, IL

City Of Edwardsville, Edwardsville, IL

City Of Highland, Highland, IL

Frank Heinzmann Company, Patoka, IL

Keller Excavating LLC, Glen Carbon, IL

Knebel Circle K Farms Inc, Pocahontas, IL

M And E Farms, Inc, Alton, IL

Madison County Mass Transit District, Granite City, IL

Mueller Estates Inc, Edwardsville, IL

LANDOWNERS AND LOCAL BUSINESSES (CONTINUED)

Phelps Construction Inc, Edwardsville, IL
Rapp Ag Land, Inc, Highland, IL
River Bluffs Girl Scout Council, Glen Carbon, IL
Ron Schmidt Farms Inc, Edwardsville, IL
Roxana Landfill Inc, Edwardsville, IL
Schewe Farms LLC, Smithboro, IL
Schreiber Farm, LLC, Edwardsville, IL
The Bank Of Edwardsville, Edwardsville, IL
Tri Vision Partnership, Dorsey, IL
USA, Vandalia, IL
Vonder Haar Agriprises, Greenville, IL
Wanda Cemetery Association, East Alton, IL

Kansas

Albertson Farms Inc, Robinson, KS
A T & S F Railroad, KS
Ben Aberle & Sons Inc, Sabetha, KS
Bob Bergkamp Construction Co, KS
Cemetery Brethern #11, KS
Diedrich Farms, KS
Ferrier Grandchildren LLC, KS
Galichia Ranch Properties LLC, KS
Glenwood Farms, KS
Graber Backhoe Inc, KS
G&O Inc, Hiawatha, KS
Henry Creek Farms Inc, KS
J B Ranch-Augusta LLC, KS
Jodebal, Inc, Wichita, KS
J-Six Farms Inc, Seneca, KS
Kansas Highway Commission, KS
Koch Supply & Trading LP, KS
Kiehnhoff Farms Inc, Wathena, KS
L & V Deines Farms, KS
Laham Family Partnership, KS
Larmar Inc, Robinson, KS
Lefert Farms, KS
Lyons Creek Watershed Joint Dist #41, KS
MDM Farms LLC, KS
Meier Dairy Of Palmer Inc, KS
M & K Farms, Marysville, KS
M And E Farms Inc, Manhattan, KS
Max E. Oltjen Land & Cattle Co Inc, Hiawatha, KS
MBM Partnership, Overland Park, KS
Montrica Farm Trust, Sabetha, KS
Moore Family Farms, Marysville, KS
Myers Farms Inc, Denton, KS
Potwin Land & Cattle Co, KS
Rahe Family Farms, KS
Ralston Farms Inc, KS
Riedy Farms, Inc, KS
Roberts Farms Inc, Denton, KS
Rottinghaus Holstein Farm. Inc A Kansas Corporation, Seneca, KS
Scholfield Farm, KS
Scully Partners LP, Marion, KS
Seeliger Farms, KS
St. John's Cathedral Church, KS
Steinbach Enterprises LP, KS
Stewart Family Farms LLC, KS
T.F.B. Farms Inc A Kansas Corporation, Hanover, KS
Terra Vista Land KLK LLC, Overland Park, KS
Tollefson Farms Inc, Hiawatha, KS
Trees Oil Company, KS
Triple T Livestock LLC, KS
Usd #433, KS
Zelta At Kellogg LLC, KS
Zschoche Farms Inc, KS

Mississippi

Galazin Family LLC, Flushing, MI

LANDOWNERS AND LOCAL BUSINESSES (CONTINUED)

Minnesota

Burlington Northern Railroad Properties Inc, St Paul, MN

Cass Prairie Farms LLP, St Paul, MN

Petersen Family LMTD Partnership & MTL. Farms LLP, Coon Rapids, MN

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American Pipeline Rental Inc, Troy, MO

Aulbur Inc, Laddonia, MO

BBW Farms LLC, Mexico, MO

Becker Brothers Farms, LLC, Mexico, MO

Beckett Realty Company, Cameron, MO

Bern Goeke And Sons Inc, St Charles, MO

Blackwell Partnership, Blue Springs, MO

Bosworth Farms LP, St Joseph, MO

Brits Sport Storage Inc, St Louis, MO

C & B Enterprises Inc, St Peters, MO

Cannon Hall Properties Inc, Troy, MO

Cemetery, West Alton, MO

Central Electric Power Cooperative, Inc, Jefferson City, MO

Central Illinois Public Service Company, St. Louis, MO

City Of St Joseph, St Joseph, MO

CLC Investments Inc, Troy, MO

Conservation Commission Of State Of Missouri, Jefferson City, MO

County Of Lincoln, Troy, MO

County Of St Charles & State Of Missouri, St Charles, MO

Cramer Farms Inc, Cowgill, MO

Cuivre Farms Inc, St Louis, MO

Dardenne Realty Co, St. Charles, MO

Doc-Cab LLC, St Charles, MO

Double C Farms Inc, Turney, MO

Dunkmann Farms, Inc, St. Charles, MO

Eggering Brothers Farm Inc, Old Monroe, MO

Emar Farms Inc., St Louis, MO

Emerald View Turf Farms, O Fallon, MO

F & G Farms Inc, St Charles, MO

Farley Point Farms, Inc, West Alton, MO

Firma Farm Company LLC, Laduc, MO

Flying B LLC, St Louis, MO

Flying L Farms Inc, New Melle, MO

Four D Ranch, Plattsburg, MO

Freeman Farms Inc, Plattsburg, MO

Grotjan H & J Farms Inc, Keytesville, MO

Heckman Farms LLC, Parkville, MO

Heisel Bob Farms Inc, Brunswick, MO

Hilltop Grain Company, Polo, MO

Horseshoe Lake Hunting And Fishing Club, O' Fallon, MO

J & C Farms Inc, Salisbury, MO

J Bishop Farm LLC, Mexico, MO

Jimko Farms Inc., Salisbury, MO

K Davis Farms LP, Gamma, MO

KWK Management LP, Bridgeton, MO

Lindenwood Female College, St Charles, MO

Machens Family LLC, Portage Des Sioux, MO

Mallard Farms Associates, St Louis, Mo

Marquitz Motors, Troy, MO

Marshland Realty Co, Town And Country, MO

Mc Neall Farms Inc., Keytesville, MO

Metropolitan Park & Recreation District, St Louis, MO

Middleton Lake Recreation Assn, Middleton, MO

Missouri Department Of Natural Resources, Jefferson City, MO

Moscow Mills Athletic Associate, Moscow Mills, MO

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Missouri (continued)

Muckerman Tree Farm LLC, Bellflower, Mo

Myer Agricultural Enterprises Inc, St Charles, Mo

Naylor Community Center, Centralia, MO

Nelson Properties Inc, St Joseph, MO

Oldenburg Investment Partnership, LP, St Charles, Mo

Oltjen W.C. Inc, St Joseph, MO

Over And Under Land Co LLC, St Louis, MO

Pavelka, Faye Family Partnership, St Louis, MO

Peruque Creek Farms Co, St Louis, MO

PFA Associates LP, St. Charles, MO

Porters Last Chance LLC, O Fallon, MO

R & H Farms Inc, Agency, MO

Rajac Properties LLC, Chillicothe, MO

Richards Farms Inc, Keytesville, MO

Rose Acre Farms, Inc., Hawk Point, MO

Saale Farms Inc, O Fallon, Mo

Schneider Farms Of Gower Inc, Gower, Mo

Schutte Farms Inc, Benton City, Mo

Scott W & Company A Mo Corp, St Joseph, Mo

Shelton Family Partnership LP, Foristell, Mo

Shoal Creek Farms LLC, Columbia, MO

Sitting Ducks LLC, St Louis, MO

Sprouse Farms Inc, Braymer, MO

St. Louis Piscatorial Club, Fenton, MO

Ten Hi Farms Inc, Wentzville, MO

The Nature Conservancy, St Louis, MO

Thomson B H & J Farms Inc, Salisbury, MO

Triple L Farms Ltd, Mexico, MO

Troy Development Company Inc, Troy, MO

Union Electric Co, St Louis, MO

United Hog Systems Inc, Marshall, MO

United States Of America, West Alton, MO

USA West Alton, MO

VRM Family LP, St Charles, MO

Wilson Grain & Livestock Farms Ltd, Thompson, MO

Yellowstone Farms LLC, Mexico, MO

Army Corps Of Engineers, MO

Montana

Pine Farms LLC, Mt

New Brunswick

Austin Company, Milford, NB

North Dakota

Bell Core Inc, Oriska, ND

Fallcrest Farms Inc, Crete, ND

Furst Stoltz, Llp, Fargo, ND

Future Vision Partnership, Kathryn, ND

Hodek Brothers, Lankin, ND

Methodist Episcopal Church Of Concrete, Cavalier, ND

Michel Family Farm Partnership, Minot, ND

Nesvig Family Farms LLP, La Moure, ND

Noeske Farms, Valley City, ND

Ransom County Soil Conservation, Lisbon, ND

Schwab Brothers Partnership, Englevale, ND

Sigurdson Farms, Edinburg, ND

Sondeland Brothers, Edinburg, ND

State Of North Dakota, Bottineau, ND

Tri-County Water, Petersburg, ND

UOA Partnership, Lakota, ND

Walsh County Water Res Dist, Grafton, ND

LANDOWNERS AND LOCAL BUSINESSES (CONTINUED)

Nebraska

Boeckner Farms Inc, Fairbury, NE
Bohac Farm Inc, Leigh, NE
Briggs Cattle Company, Seward, NE
Buckshot Farms, Lincoln, NE

Cast Farms Inc, Milford, NE
Crucible Farms Inc, Bellwood, NE
D. And R. Farms Inc, Dwight, NE
Dale Electronics Inc, Columbus, NE
Dickenson Sarpy LP, Milford, NE
Ellusa Enterprises Inc, Omaha, NE

FDH LLC, Malcolm, NE
Fred-Kluck Land Co, Richland, NE

Glen A Kluck Co, Richland, NE
Grain Belt LLC, Laurel, NE

Grass Valley Farms Inc, David City, NE
Hertz Farm Management, Omaha, NE
Hill & Valley Farms Inc, Columbus, NE
Hiller Farms LLP, Bellwood, NE
Hogwild Farms Inc, Humboldt, NE
Hueskes Inc, Dewitt, NE
Hunters Hill Trio, David City, NE
Jonesy-B Limited Partnership, Omaha, NE
Katy-Pat Farms Inc, Leigh, NE
Kruse Brothers Partnership, Seward, NE
Larkin Enterprises, LLC, Omaha, NE
Logan Valley Implement Inc, WayNE, NE
Marsh Farms, A NE Partnership, Hartington, NE
Mary Ann Kruse Life Use, Seward, NE
McMaster Enterprises Inc, Lincoln, NE
McMullin Farms Inc, Leigh, NE
Meinberg Farms Inc, Seward, NE
Mjm Families Real Estate Ltd Partnership, Richland, NE
Mts Farms, Inc., Bellwood, NE
Mullenhoff Farms Inc, Leigh, NE
Nordhues Farms Partnership, Randolph, NE
O'Neal Family Farms, LLC, Clarkson, NE
Pearson Farms Inc, Plymouth, NE
Rambour Realty, Columbus, NE
Raymond Siffring Company, Rising City, NE
R & B Langenberg, NE
Schlichting Family Partnership, Randolph, NE
State National Bank And Trust Company, Wayne, NE
Sunnyhill Farms Inc, Columbus, NE
T F Farms Inc, Fordyce, NE
T. T. D., Seward, NE
Tomek Recreational Property Trust, Bellevue, Ne
Weber & Sons Co, Saline, NE
Youth Development Memorial Foundation, David City, NE

Ohio

Marathon Ashland Petroleum Company, Findlay, OH

Oklahoma

Conoco Phillips F/K/A/ Tosco Corporation, Bartlesville, OK
Williams Communications, Tulsa, OK
Abh Inc., OK
Brorsen Blue Stems, OK
City Of Cushing, OK
Commissioner Of The Land Office, OK
Conoco Phillips F/K/A/ Tosco Corporation, OK
Edge Resources Trust, OK
Evans Cushing Inc, OK
Grand River Dam Authority, OK
J B Ranch-Butler LLC OK
Kahle Corporation, Inc, OK
OKlahoma Gas & Electric, OK
OKlahoma Turnpike Authority, OK
Old Blue Ranch, OK
Phillips Pipeline Company, OK
Rissmann Elizabeth & Company Inc, OK
Rothgeb Farms, Inc, OK

Spi Services LLC, OK
State School Fund Land, OK
Teppco Crude Oil LLC, OK
Vap Farms, OK
Vince Myers Welding & Construction Inc, OK

LANDOWNERS AND LOCAL BUSINESSES (CONTINUED)

Pennsylvania

Conrail, Philadelphia, PA

South Dakota

Albrecht Bros., Desmet, SD
Arens & Weverstad Partnership, Yankton, SD
Cimpl's Inc, Yankton, SD
City Of Yankton, Yankton, SD
Clark Hutterian Brethren, Raymond, SD
D.A.D. Farms Inc, Emery, SD
Daveens Limited Inc, Emery, SD
Docter Feedlot, Inc., Amherst, SD
Fordham Hutterian Brethren Inc, Carpenter, SD
Game, Fish & Parks / Habitat Section, State Of SD, Pierre, SD
Hansmeier & Son Inc, Bristol, SD
Heine Farms Etal, Yankton, SD
Hohm Farms, Yale, SD
Johnson Farms, Bristol, SD
L & J Enterprises, Bristol, SD
Munkvold Land & Cattle Inc Company, Menno, SD
Nelson Family Partnership, Yankton, SD
Newport Hutterian Brethren Inc, Claremont, SD
Noethlich Brothers, Doland, SD
Norjo Inc, Desmet, SD
R & L Farms Inc, Conde, SD
Rix Farms, Groton, SD
Ryken Family Limited Partnership, Yankton, SD
Schmieding Farms, L.L.C., Sioux Falls, SD
Schultz Farms, Inc, Freeman, SD
Schuring Farms Inc, Andover, SD
Sturdevant's East River Holding Company Llc, Sioux Falls, SD
Sunset Hutterian Brethren Inc., Britton, SD
Vietor Brothers, Amherst, SD
Vigdal Farm Inc, Britton, SD
Walter Family Limited Partnership, Conde, SD
Wolf Creek Hutterian Breth Inc, Olivet, SD
Zion Lutheran Church, Bridgewater, SD

Texas

BNSF Railway Company, Fort Worth, TX
Burlington Northern & Santa Fe Railway Company, Ft Worth, TX
Burlington Northern Railroad, Ft Worth, TX
Gsx Corp Of Illinois, Ft Worth, TX
Beal Ranch, TX
Federal National Mgt Association, TX
Oz Land Ltd Partnership, TX
Shell Pipeline Corporation, TX

Virginia

Norfolk & Western Railroad, Roanoke, VA

Washington

Longview Fibre Paper And Packaging Inc, Longview, WA
MTL Farms, LLP, Renton, WA

Wyoming

Platte Pipeline Company, Cody, WY

No State Available

Heim Brother Farm Inc ,
R K & K Dairy ,

PRIVATE LANDOWNERS

Alabama

Keith Bowers, AL
Dawn Keenan, AL
Phyllis Peterson, AL

Arkansas

Beverly And Douglas Davidson, AR
Kristi Downing, AR

Arizona

Viva Bolton, AZ
Carolyn Campbell, AZ
White Family, AZ
Pamela And Robert Affholder, AZ
Bob Brown, AZ
Theodore Freeman, AZ
Larry Gatliff, AZ
Donald Hooey, AZ
Paul Kloster, AZ
Arlene Kremer, AZ
Vicki Lenihan, AZ
Alene Midstokke, AZ
Ernest Midstokke, AZ
Pamela Midstokke Poley, AZ
Dawn Mulligan, AZ
Alice Paulson, AZ
Edwin Wieber, AZ

California

James Rock, CA
Kristy Weaver Neura, CA
Kim And Maurine Andersen, CA
Carol Anderson, CA
Betty Anderson, CA
Carlson Family, CA
Marcia Desautel, CA
Dale Geraldson, CA
Phyllis Grame, CA
Halla Family, CA

California (cont.)

Dennis Hillard, CA
Ronald Hillard, CA
Marjorie F. Howe, CA
Gerald Johnson, CA
Beverly Kelley, CA
William Kennealley, CA
Douglas Kinsinger, CA
Laurie Kinsinger, CA
Ferdinand & Marjorie Kloster, CA
Mable Long, CA
Donald Martin, CA
Martha Martin, CA
Brenda Meyer, CA
Richard Meyer, Ca
William And Richard Movius, CA
Lynn Paulson, CA
Sherry Pollman, CA
Larry And Regina Romine, CA
Leora Sandelin, CA
Robert Sandelin, CA
Pauline Schiappa, CA
Jean Seymour, CA
Erland Stenberg, CA
Mary Stenberg, CA
Clinton Stevenson, CA
Craig Stewart, CA
Marie Stewart, CA
Marian Swendseid, CA
Jack Von Bloeker, CA

Colorado

Hall Family, CO
Thelma Hinnen, CO
Paul Otto, CO
Judith Bauman, CO
Donald And Donice Bylander, CO

Colorado (cont.)

Cheryl And Stefan Carlson, CO
Nina And Rodney Christ, CO
Donald Kludt, CO
Delores Lowe, CO
Raymond Lowe, CO
Robert Mount, CO
Virginia Mount, CO
Olthoff Family Trust, CO
Kendall Peeks, CO
Michael Reber, CO
Doug Simon, CO
Jerry Simon, CO
Julie Simon, CO
Lora Sinkey, CO
Kim Spaulding, CO
Mary Tyser, CO
Richard Tyser, CO
Janet Wergin, CO
Alburn Wiebelhaus, CO
Vivian Wiebelhaus, CO
Zulauf Family, CO

District Of Columbia

Landon Fulmer, DC
Riley Scott, DC
Robert Jeske, DC

Florida

Catharine Boys, FL
John Bures, FL
David K.Ehrlin, FL
Laveda And Raymond Ferren, FL
Frances Frazer, FL
Marion Johnson, FL
Ruth Juttemeyer, FL
Alice Leathem, FL
Jerry Neff, FL

PRIVATE LANDOWNERS (CONTINUED)

Florida (cont.)

Norma Ochs, FL
Carrie Ruhn, FL
Shirley Williams, FL

Georgia

Joel Bass, GA
Andrews Family, GA
Carol Lohr, GA
Darwin Puls, GA
Deanna Puls, GA

Iowa

Robert Irwin, IA
Jacob And Shirley Anderson, IA
Donna Buyert, IA
Tweila Freeman, IA
Alma Huber, IA
Robert Kelly, IA
Teresa Mccune, IA
Clarine Mehlhaff, IA
Karen Murray, IA
Robert Peters, IA
Cleo Rinehart, IA
Greg Rinehart, IA
Rinehart Trust, IA
Frances June Wehrman, IA

Idaho

Morley Nelson, ID
Timothy Wagner, ID

Illinois

Brent And Denise Augustin, IL
T Ballance, IL
Charles Barth, IL
Richard Bast, IL
Randy (Il) Beck, IL
Russell Becker, IL
Mark Belcher, IL

Illinois (cont.)

Gretchen And Robert Bernardi, IL
Marian Beyer, IL
Marita Biggerstaff, IL
Keith Biver, IL
Carol And Donald Block, IL
Harold (Dean) And Judith Boren, IL
Marilyn And Kent Bosen, IL
Leo And Joe Brass, IL
Leslie Britt, IL
Steve Britt, IL
John And Tonya Brocco, IL
Connie Brown, IL
Lamoine AND Lola Brown, IL
Brown Family Partnership, IL
Eva And Gary Brumfield, IL
James Bucher, IL
Michael And Stacy Cain, IL
Carol Carlburg, IL
Margaret And Terry Carter, IL
Woody Family, IL
Sandra Chinn, IL
Lucie Cizek, IL
Louise Connell, IL
Mary Cowie, IL
Martin And Rita Degenhardt, IL
Robert Delaney, IL
Joe Doll, IL
Doll Family LP, IL
James And Louise Downen, IL
Marilyn Drew, IL
Drummond Family, IL
Carrie And David Jr Dunn, IL
Sandra East, IL
Curt Eversgerd, Il
Chris And Keith Federer, Il

Illinois (cont.)

Robert And Ruth Feyerbend, IL
Della And Gene File, IL
Jerry And Terry File, IL
Kacie And Marie Firkus, IL
Michael And Susan Firsching, IL
Jennifer Follwell, IL
Arlene And Worley Frye, IL
Scott And Tina Gaines, IL
Leonard Gall, IL
Barbara And Lester Gieseking, IL
Edward Giliham, IL
George & Jeannine Gobberdiel, IL
Beverly Gorman, IL
Linda And Mark Grinter, IL
Norman Gross, IL
David Grotefendt, IL
Lonis Gruen, IL
Homer Gurtler, IL
Louis Haegele, IL
Haegele Family Land Trust, IL
Edward And Judy Hagler, IL
Linda And Randall Hamel, IL
Larry Hanke, IL
Rita Hardy, IL
Debra And Harry Hediger, IL
Mary Heilig, IL
Flossie And John, Jr Helmkamp, IL
Betty And Elmer Hemminghaus, IL
Gary And Sheila Hemminghaus, IL
Dale And Eugene Henderson, IL
Gerard And Janice Hess, IL
Mary Hess, IL
Brian And Kimberly Hilmes, IL
Ethel And Harold Hitz, IL
Constance Hofer, IL
Houston Family, IL

PRIVATE LANDOWNERS (CONTINUED)

Illinois (cont.)

Lucille Huffman, IL
Harvey Jakel, IL
George Jaynes, IL
Jeffrey And Kimberly Jenne, IL
Larry And Lisa Johnson, IL
Linda And Michael Johnson, IL
Ruth Jordan, IL
Lynn And Richard Kampwerth, IL
Agnes And Roland Keller, IL
Kenneth And Leona Kersch, IL
Chris King, IL
Dwanna Kirkwood, IL
Ina Klette, IL
Kenneth Klette, IL
Gary Kneipmann, IL
James Kolda, IL
Gary Kreutzberg, IL
Dennis Kusterman, IL
Jeanne Kusterman, IL
OrvILle Kusterman, IL
Larry Lagant, IL
Linda Lagant, IL
Jennie Lee, IL
Joseph Leidner, IL
Valerie Leidner, IL
Michael Leonard, IL
Verla Leonard, IL
Lj Grigsby Trust, IL
Catherine Losch, IL
Charles Losch, IL
Herman Louer, IL
Margaret Louer, IL
Ann Maassen, IL
Angela Maedge, IL
Wayne Maedge, IL
Evelyn Mansholt, IL
James And Lauren Marshall, IL
Darrell Marti, IL
Wayne Marti, IL
Loraine Mc Casland, IL
Lynnette And Ronald Menold, IL
Carol Mestemacher, IL
Mark Mestemacher, IL
Meyer Family, IL
Bill Mills, IL
Margaret And William Mills, IL
Carl And Margaret Modine, IL
Alan And Douglas Moore, IL
William Moore, IL
Lucy Morgan, IL
Rita Morr, IL
Thomas Morr, IL
Tammy Mount, IL
Wayne Mount, IL
John Mudge, IL
Dave Mueller, IL
Dennis Nagel, IL
Dale Nagel, IL
Ruth Nagel, IL
Donald Neumann, IL
Edward Niemeier, IL
Robert Norris, IL
Virginia Norris, IL
Lori Nungesser, IL
Randall Nungesser, IL
Mabel Oates, IL
Thomas Oates, IL
WILliam Oelze, IL
Patricia Ogle, IL
Cheryl Orr, IL
Beth Orrell, IL
Edward Orrell, IL
Becky Overmark, IL
Geraline Pape, IL
David Payne, IL
Patricia Payne, IL
Mark Payne, IL
Julie Payne, IL
Mack Payne, IL
George Pierson, IL
Lexie Pierson, IL
John Pinegar, IL
Steve Plocher, IL
Joe Pourchot, IL
Marla Pourchot, IL
Larry Prott, IL
Donald Rapp, IL
Janet Rapp, IL
Henry Reymond, IL
Cheryl Reymond, IL
Roger Reymond, IL
Gladys Riepshoff, IL
Glenn Sr Riepshoff, IL
Verna Roberts, IL
Dwight Jr Rogier, IL
Vincent Saale, IL
Albertine Saale, IL
Vinca Saale, IL
Debbie And Scott Sadkowski, IL
James Schaufelberger, IL
K. Schaufelberger, IL
Terry Scheibal, IL
Mark Schewe, IL
Mark Schewe, IL
Rodger Schmidt, IL
Scott Schmitt, IL
Delmar Schoenleber, IL
Marcella Schoenleber, IL
Merle Schrumpf, IL
Robert Schulte, IL
Sandra Schulte, IL
Harold Schwartz, IL
Richard Schwartz, IL
Harold Schwehr, IL
Mary Schwehr, IL
Scott Secor, IL
Gene Shriver, IL
Tod Siebert, IL
Larry Skinner, IL
George Slifka, IL
Marcia Slifka, IL
Eldon And Helen Smith, IL
George Sotiroff, IL
Mattie Sotiroff, IL
Chris Sotiroff, IL
Michael St. John, IL
Pamela St. John, IL
Deborah Stagner, IL

PRIVATE LANDOWNERS (CONTINUED)

Illinois (cont.)

Dennis Stagner, IL
Alan & Aloysius Stahlschmidt, IL
Walter Steiner, IL
John Stobbs, IL
Douglas Strasser, IL
Jacqueline Strasser, IL
Barbara Stumpf, IL
Joanne Suess, IL
Michael Suess, IL
Larry Suess, IL
Suess Family, IL
Walter Suessen, IL
Betty And Dean Sullens, IL
John Tate, IL
Sharon Tate, IL
Ronald Tishhauser, IL
Kevin Todd, IL
Candace Todd Kindle, IL
Ernest Tosovsky, IL
Tim Tosovsky, IL
Mary Trampe, IL
Vernon Trampe, IL
Bernice And Kenneth Tune, IL
Connie And Neal Turley, IL
Arthur Unterbrink, IL
Sandra Unterbrink, IL
Uram FamILy, IL
Chuck Ursprung, IL
Marian Verharst, IL
Donald Voigt, IL
Melba Voigt, IL
David Voigt, IL
Kenneth Voigt, IL
Margy Voigt, IL
Ralph Jr Von Bokel, IL
Allen Vonder Haar, IL
Jo Vonder Haar, IL
Marlin Wagner, IL
Patricia Wagner, IL
Suzanne Walker, IL
William Walker, IL

Illinois (cont.)

Nick Walker, IL
William Walker, IL
Brant Weidner, IL
Marie Weis, IL
Gary Weis, IL
Delores Weiss, IL
Richard Weiss, IL
Weiss FamILy, IL
Robert Wessel, IL
Paul And Rhonda Wiegand, IL
Brandi Wilson, IL
Michael Wilson, IL
Bob Winet, IL
Jennifer And Robert Wukovich, IL
Daniel Zitta, IL

Indiana

Jul Mall, IN
Grayce Lechtenberg, IN
Victor Lechtenberg, IN
Jul C. Mall, IN
John Parker, IN
Barbara Reber, IN
Donald Reber, IN

Kansas

Aitchison Family, KS
Alexander Family, KS
Alquist Family, KS
Amidon Family, KS
Avery Family, KS
Bahruth Family, KS
Bannon Family, KS
Barnett Family, KS
Barrett Family, KS
Bazil Family, KS
Bear Family, KS
Bennett Family, KS
Benson Family, KS
Berrie Family, KS
Beswick Family, KS
Betzen Family, KS
Biehler Family, KS

Kansas (cont.)

Black Family, Ks
Blush Family, Ks
Bonewell Family, KS
Bott Family, KS
Braddy Family, KS
Brewer Family, KS
Brookings Family, KS
Brown Family, KS
Broyles Family, KS
Bryant Family, KS
Caldwell Family, KS
Carl Family, KS
Chamberlin Family, KS
Chaput Family, KS
Chase Family, KS
Chinn Family, KS
Claassen Family, KS
Clemence Family, KS
Cole Family, KS
Conway Family, KS
Corbin Family, KS
Coufal Family, KS
Cox Family, KS
Craig Family, KS
Craun Family, KS
Crisler Family, KS
Cronin Family, KS
Cummins Family, KS
Cunningham Family, KS
Dennett Family, KS
Diederich Family, KS
Diehl Family, KS
Dunlap Family, KS
Eastman Family, KS
Eenhuis Family, KS
Ensz Family, KS
Eskeldson Family, KS
Estes Family, KS
Evans Family, KS
Floyd Family, KS
Forsyth Family, KS

PRIVATE LANDOWNERS (CONTINUED)

Kansas (cont.)

Foster Family, KS
Frommack Family, KS
Geis Family, KS
Gelmers Family, KS
Gerardy Family, KS
Gfeller Family, KS
Godfrey Family, KS
Graff Family, KS
Gray Family, KS
Griest Family, KS
Gruber Family, KS
Guthrie Family, KS
Hanschu Family, KS
Harder Family, KS
Harviston Family, KS
Haunschild Family, KS
Heigele Family, KS
Helmer Family, KS
Hennerberg Family, KS
Herrell Family, KS
Hett Family, KS
Hiebert Family, KS
Hoffman Family, KS
Hogan Family, KS
Hostetler Family, KS
Howard Family, KS
Hunt Family, KS
Husted Family, KS
Jacobson Family, KS
Jefferis Family, KS
Jimeson Family, KS
Johnson Family, KS
Joseph Family, KS
Jueneman Family, KS
Karber Family, KS
Keil Family, KS
Kloppenberg Family, KS
Knaak Family, KS
Knickerbocker Family, KS
Knitter Family, KS
Koch Family, KS

Kansas (cont.)

Konarik Family, KS
Kontz Family, KS
Koontz Family, KS
Korte Family, KS
Kraisinger Family, KS
Krehbiel Family, KS
Kroupa Family, KS
Kruse Family, KS
Lang Family, KS
Larkin Family, KS
Larson Family, KS
L'ecuyer Family, KS
Leppke Family, KS
Lexow Family, KS
Locke Family, KS
Lohmeyer Family, KS
Long Family, KS
Lovell Family, KS
Lyons Family, KS
Mackay Family, KS
March Family, KS
Markley Family, KS
Marnane Family, KS
Martin Family, KS
Mattix Family, KS
Mauzey Family, KS
May Family, KS
Mcculloch Family, KS
Mcewen Family, KS
Mcgrath Family, KS
Mcmahan Family, KS
Mettling Family, KS
Miller Family, KS
Mundy Family, KS
Myers Family, KS
Neuwirth Family, KS
Nichols Family, KS
Nixon Family, KS
Nutsch Family, KS
Obenland Family, KS
Ohlde Family, KS

Kansas (cont.)

Ohlson Family, KS
Ohm Family, KS
Olson Family, KS
Orr Family, KS
Overton Family, KS
Owen Family, KS
Pankratz Family, KS
Pannbacker Family, KS
Pappan Family, KS
ParKS Family, KS
Parsley Family, KS
Pellegrini Family, KS
Penner Family, KS
Peters Family, KS
Pettit Family, KS
PinKSton Family, KS
Poore Family, KS
Powell Family, KS
Preheim Family, KS
Ralston Family, KS
Ramsey Family, KS
Randle Family, KS
Ray Family, KS
Reed Family, KS
Regier Family, KS
Reich Family, KS
Reiter Family, KS
Richmond Family, KS
Richter Family, KS
Riddle Family, KS
Rock Family, KS
Roth Family, KS
Rupp Family, KS
Salava Family, KS
Schauf Family, KS
Schellenger Family, KS
Schlesener Family, KS
Schmale Family, KS
Schmidt Family, KS
Schoonover Family, KS
Seifert Family, KS

PRIVATE LANDOWNERS (CONTINUED)

Kansas (cont.)	Kansas (cont.)	Kansas (cont.)
Seitz Family, KS	Walter Family, KS	Theodore Bergman, KS
Seiwert Family, KS	Warns Family, KS	Jeannie And Leo Berry, KS
Shahzada Family, KS	Waterman Family, KS	Richard E. Black, KS
Sharp Family, KS	Weber Family, KS	Jerry And Nancy Bottiger, KS
Shaver Family, KS	Wedel Family, KS	Lois And Samuel Bowen, KS
Shelley Family, KS	White Family, KS	Darrel And Ruby Boyd, KS
Shurtz Family, KS	Whiteman Family, KS	Karen Bramlage, KS
Simon Family, KS	Wiebe Family, KS	Ann Brown, KS
Siviseth Family, KS	Wieters Family, KS	David And Karen Brown, KS
Slingsby Family, KS	Wilder Family, KS	Caroline And Charles Bruna, KS
Sly Family, KS	Wilson Family, KS	Lynn Bruna, KS
Smith Family, KS	Winegar Family, KS	Greg Bryant, KS
Snodgrass Family, KS	Winter Family, KS	Annette And Roland Burton, KS
Spencer Family, KS	Wood Family, KS	Robert Ahlerich, KS
Stalder Family, KS	Woolley Family, KS	Delores Albrecht, KS
Stamm Family, KS	Wurtz Family, KS	Gary Alleven, KS
Stein Family, KS	Yarrow Family, KS	C J Andes, KS
Storey Family, KS	Yenni Family, KS	Jeffrey Artz, KS
Stroda Family, KS	Lars Aarstad, KS	Herbert Austin, KS
Stucky Family, KS	James Aberle, KS	Raymond Ayers, KS
Sump Family, KS	Raymond Adam, KS	Nadine Baer, KS
Svitak Family, KS	James And Tammy Adams, KS	Gene Beard, KS
Tajchman Family, KS	Phil Albers, KS	Mark Bechtel, KS
Taylor Family, KS	Gladys And Herbert Albers, KS	Becky Beichter, KS
Thiessen Family, KS	Luther And Wilma Albertson, KS	Mike Beltz, KS
Thurlow Family, KS	Robert Alexander, KS	Juanita Berg, KS
Tilton Family, KS	Marie Anderson, KS	Bill Bergmeier, KS
Tolles Family, KS	Joel And Rebecca Bacon, KS	Leland Bernhardt, KS
Tucker Family, KS	Alan Bahr, KS	Margie Berrie, KS
Tyler Family, KS	Freda Bahr, KS	Elizabeth Berry (Hoskins), KS
Underwood Family, KS	Ronald Bahr, KS	Laverne Bina, KS
Urban Family, KS	Rys Baker, KS	Edward Blue, KS
Varner Family, KS	Harold And Sharon Bannon, KS	Dolores Brabec, KS
Vetter Family, KS	Marion Barrow, KS	Jeffrey Brabec, KS
Vinduska Family, KS	Jerllean Bartels, KS	Russell Brehm, KS
Visser Family, KS	Ivan And Sharon Bartels, KS	Tena Brenneis, KS
Voegele Family, KS	George And Joyce Bauer, KS	Patsy Brill, KS
Vogel Family, KS	Mike Beam, KS	Phyllis Britt, KS
Walker Family, KS	John Bergman, KS	Eldred Brockmeier, KS
Walsh Family, KS	Debra And John Bergman, KS	Johnnie Brookings, KS

PRIVATE LANDOWNERS (CONTINUED)

Kansas (cont.)

Ruby Brower, KS
Kent Brunner, KS
Ken Bryant, KS
Patricia Bunck, KS
Rene Charbonneau, KS
Travis Charbonneau, KS
Helen Claassen, KS
Virginia Claassen, KS
Mabel Collinson, KS
Linda Consolver, KS
James Corbin, KS
Mac Corbin, KS
Mary Covalt, KS
Nancy Cowan, KS
Lydia Cox, KS
Charles Craig, KS
James Day, KS
James Dean, KS
Earl Deines, KS
Mervin Deines, KS
Bernard Diederich, KS
Don Diederich, KS
James Diederich, KS
Lyle Diehl, KS
Dean Dodson, KS
Viola Dodson, KS
Mary Duffy, KS
Bart Duncan, KS
Michael Durkin, KS
Michael Fager, KS
Mary Farney, KS
Sharon Finley, KS
Ralph Fischer, KS
Dennis Fisk, KS
Orpha Fox, KS
David Frantz, KS
Maxine Friederich, KS
Dennis Friedli, KS
James Fritz, KS
Donna Fruechting, KS
Marvin Fuller, KS

Kansas (cont.)

Roberta Galbraith, KS
Richard Gawith, KS
Jacqueline Geist, KS
Gelter Living Trust, KS
Gerald Jr. Geringer, KS
Dough Gerleve, KS
Charlotte Gilbert, KS
Anna Gilliam, KS
Michael Gilliam, KS
Sharon Gordon, KS
Darrel Gottlob, KS
Max Griffin, KS
Glenda Gulick, KS
Eugene Jr Hagan, KS
Burma Hanschu, KS
Ronnie Hanschu, KS
Glenda Harder, KS
Lloyd Harvey, KS
Gary Hatesohl, KS
Janet Hatesohl, KS
Glen Heimerich, KS
Willard Hett, KS
Susan Higgins, KS
Charles Hilt, KS
Areata Hofmann, KS
Marcella Holbrook, KS
Helen Holston, KS
Terry Hoover, KS
Rene Hromek, KS
Russell Hummel, KS
Kenneth Hutchinson, KS
Allen JacKSon, KS
Dean JacKSon, KS
Steve Johnson, KS
Mark Johnston, KS
Ronald Johnston, KS
Mary Jones, KS
Stanley Jones, KS
Oscar Kasenberg, KS
Beverly Keller, KS
Dennis Kelley, KS

Kansas (cont.)

Mark Kennedy, KS
Shirley Kern, KS
Terry Ketterman, KS
Wauneta Ketterman, KS
Judyth Kill, KS
Donna Klein, KS
Raymond Knoll, KS
Keith Koehn, KS
Ralph Lanzrath, KS
Jarrod Lawrence, KS
Jeanette Lawrence, KS
Joanita Lawrence, KS
Terry Lawrence, KS
Diana Lee, KS
Yvonne Lee, KS
Justin Lefert, KS
Mike Litke, KS
Scott Litke, KS
Richard Lloyds Inc, KS
Donald Loe, KS
Jerry Lovett, KS
Raymond Luthi, KS
Carl Mar, KS
Ning Mar, KS
Nina March, KS
Phillip Martin, KS
Carol Matas, KS
Craig Mate, KS
Marion Mathews, KS
Robert Mayfield, KS
Jim Mcclung, KS
Craig Mcclure, KS
Jake Mcclure, KS
Karen Mccoy, KS
Spencer Mcfarland, KS
Pat Mcgatlin, KS
Marvin Mclaughlin, KS
Jim Mercer, KS
Greg Mettling, KS
Donald Meysing, KS
Emily Miller, KS

PRIVATE LANDOWNERS (CONTINUED)

Kansas (cont.)	Kansas (cont.)	Kansas (cont.)
Joe Miller, KS	Steven Riedy, KS	Betty Taylor, KS
Regina Miller, KS	Eugene Riffel, KS	Blair Tharp, KS
Clayton Moore, KS	Jeff Riffel, KS	Dalene Tharp, KS
Robert Moore, KS	Ronnie Roberts, KS	Diana Thiessen, KS
Morgan Family, Irr Trust, KS	Loren Rock, KS	Joe Thomas, KS
Richard Morris, KS	Greg Roles, KS	Randall Thurlow, KS
Ricky Morriss, KS	Donald Rosenow, KS	Keith Tyler, KS
Clyde Morton, KS	Daniel Rudolph, KS	Gailen Tyrell, KS
Don Morton, KS	Victoria Rudolph, KS	Eleanor Urbanek, KS
Lydia Morton, KS	Gregory Samuels, KS	Don Van Zee, KS
Michael Morton, KS	Dan Schalk, KS	Leon Vanvessum, KS
Gerald Mullett, KS	Allen Schanbacher, KS	John Vinduska, KS
Joe Neises, KS	William Schaulis, KS	Chris Visser, KS
John Neises, KS	Paul Jr Schellhorn, KS	Mardell Voelker, KS
Gregory Nelson, KS	Iva Schlatter, KS	Thelma Vogelman, KS
William Newell, KS	Lester Schlesener, KS	Michael Voit, KS
Justin Nilik, KS	Gary Schmutz, KS	Crystal Voth, KS
Marlin Oestman, KS	Brian Schwartz, KS	Laurie Wade, KS
Robert Ohm, KS	William Scully, KS	Virginia Wagner, KS
Dorothy Osburn, KS	Facia Self, KS	Hadley Wait, KS
Gary Osman, KS	Greg Shepard, KS	Leslie Waldeck, KS
Gary Padgett, KS	Stuart Shepard, KS	Christine Walker, KS
C M Pannbacker, KS	Benjamin Siebold, KS	Patricia Waters, KS
Parker Family Trust, KS	Ed Silhan, KS	Mary Watson, KS
Rick Pauly, KS	Betty Sills, KS	William Watson, KS
Wilma Pearson, KS	Thomas Slick, KS	Loren Watts, KS
Phyllis Perry, KS	Doris Sly, KS	Martha Watts, KS
Charles Pilkington, KS	Joseph Smith, KS	John Weber, KS
John Posey, KS	Rodney Smith, KS	Ray Wentworth, KS
Myrtle Posey, KS	Smith Family Loving Trust, KS	Kathleen Westphal, KS
Randall Preheim, KS	Bob Sommers, KS	Steve Whitehair, KS
Mauricia Prosser, KS	Terry Steiner, KS	Chester Wichman, KS
Carla Purdy, KS	Norman Stewart, KS	Jack Williams, KS
Catherine Rademacher, KS	Gary Stroda, KS	Margaret Wilson, KS
James Redington, KS	Kenny Stroda, KS	Rodney Wilson, KS
Joseph Redington, KS	Curtis Stroud, KS	Dean Winters, KS
Owen Redington, KS	Lavern Stucky, KS	Erna Yeagley, KS
Mary Reich, KS	Don Suderman, KS	Lenore Yost, KS
Brenda Reimer, KS	Colleen Suffron, KS	Dennis Zumbrunn, KS
Leonard Richardson, KS	E Svitak, KS	Darlene And Wilbur Campbell, KS
Robbie Riedy, KS	George Svitak, KS	Bryan Cannon, KS

PRIVATE LANDOWNERS (CONTINUED)

Kansas (cont.)	Kansas (cont.)	Kansas (cont.)
David And Tammy Claeys, KS	Jerry And Shirley Gifford, KS	Willard Hett, KS
Larry And Reva Creamer, KS	Francis And Kent Gockel, KS	Amaryllis Holloway, KS
Gordon Crome, KS	Kevin And Vickie Goodman, KS	Lynn Holthaus, KS
Bill And Rosae Crow, KS	Evelyn Gore, KS	Arlyn And Joan Holthaus, KS
Elizabeth Daniels, KS	Tim Grable, KS	Kevin Holthaus, KS
Terry Daniels, KS	Janis And Wayne Grable, KS	Helen And James Hopkins, KS
Patricia Denton, KS	Grable Family, KS	Carol Hughes, KS
Louis Deoin, KS	Marlene Greene, KS	Francis And Stephanie Hulsing, KS
Marilee And Virgil Deters, KS	David Gress, KS	Neal Jacobsen, KS
Gerald Detweiler, KS	Norbert Gress, KS	Delmar And Janice Jaden, KS
Rita Detweiler, KS	Cherie And Christopher Grimm, KS	Gladys And Harold Jahnke, KS
Mary Diebolt, KS	Harry And Michael Gudenkauf, KS	Dirk Jamvold, KS
Donald And Marlene Dodd, KS	Marda Gudenkauf, KS	Howard Jensen, KS
Dennis Doebele, KS	Richard Hagedorn, KS	Ronald Johnson, KS
Lyle And Lois Drehl, KS	Jim Hall, KS	Craig And Douglas Johnson, KS
Susan Duell, KS	Deeanna And Robert Halling, KS	Steven Jones, KS
Floyd And Mary Duffy, KS	Kelly E. Hanranhan, KS	Earl Jones, KS
Leo And Marie Eagan, KS	Loretta And Harold Harter, KS	Damon And Judith Jones, KS
Elsie Earhart, KS	Diane And Larry Hasenkamp, KS	Al Jones, KS
Denise Eenhuis, KS	Melvin Haug, KS	Gerald Joyce, KS
Clarence And Lillian Engelken, KS	Mary And Russel Haverkamp, KS	Gary Kabriel, KS
Gale Epple, KS	Marlene & Timothy Haverkamp, KS	Dave Katz, KS
Clyde And Karla Epple, KS	John Haverkamp, KS	Keim Family, KS
Eldon R. Ten Eyck, KS	George Haverkamp, KS	Norman Kenworthy, KS
Rosalia Fangman, KS	Arlene And Lillis Haverkamp, KS	Ray Kessler, KS
Virginia Farrar, KS	Edward Hawkins, KS	John Kiehnhoff, KS
Robert Fee, KS	Bruce Heiman, KS	Mark Kiehnhoff, KS
Wayne Finger, KS	Jim Heiman, KS	Friedrich Klaus, KS
Ralph And Penny Fischer, KS	Gilbert And Janice Heiman, KS	Barbara And Clifford Klein, KS
Bernard W. Frommack, KS	Virgil Heinen, KS	Rick Klein, KS
Rebecca Frontiera, KS	Harold Heinen, KS	Marvin Kleppe, KS
Susan Gartrell, KS	Emma Heiniger, KS	Bernard Klover, KS
Michael Gee, KS	Eugenia Heinricken Schwart, KS	John Knudson, KS
Robert Georgeson, KS	Glenn And Linda Hennigan, KS	Carol Koch, KS
Amaryllis Gerber, KS	Ilene Henning, KS	Kenneth Koch, KS
Esther Gibson, KS	Glenn Henningan, KS	Fred Kopp, KS
Gibson Family Trust, KS	Lynn Hermesch, KS	John Koppes, KS
	Clifford Hett, KS	Nick Kosar, KS

PRIVATE LANDOWNERS (CONTINUED)

Kansas (cont.)	Kansas (cont.)	Kansas (cont.)
Sue Kosar, KS	Terry Montgomery, KS	Twila Rector, KS
John And Madeline Kramer, KS	Lucian Iii And Ruth Moore, KS	David Rector, KS
Elaine Kramer, KS	Caroline Mulhern, KS	Steven Rector, KS
Keith Kramer, KS	Lawrence Mulhern, KS	Amy Rengstorf, KS
Janice Krogman, KS	Patt Murphy, KS	Todd Rengstorf, KS
Diane Krogmann, KS	John Myers, KS	Carol Renyer, KS
Joshua Krogmann, KS	Kathleen Myers, KS	Greg Renyer, KS
Willis Kuhnert, KS	Lewis Myers, KS	Barbara Ricklefs, KS
Sharon Lackey, KS	Larry Nelson, KS	Bonnie Ricklefs, KS
Eula Larmore, KS	Nancy Nelson, KS	Ronald Ricklefs, KS
Laverentz Estate Trust, KS	Charles Nimtz, KS	Ringen W E & D E Family Trust, KS
Yvonne Lee, KS	Joan Nimtz, KS	Anita Rockey, KS
Tyler Lienemann, KS	Larry Nolte, KS	Dwight Rockey, KS
Gail Lierz, KS	Ruby Nolte, KS	Douglas Rodvelt, KS
Lynn Lierz, KS	Don Nye, KS	Alvin Roggenkamp, KS
Douglas Linkugel, KS	Kent Obermeyer, KS	Donald Roggenkamp, KS
Joyce Loe, KS	Loallen Obermeyer, KS	Ruth Rohmeyer, KS
Carroll Loyd, KS	Betty & Lawrence Olberding, KS	Larry Rohrer, KS
Evelyn Loyd, KS	Olberding Family, KS	Theresa Rohrer, KS
Shawn Loyd, KS	Jack Oldridge, KS	Allen Rokey, KS
John And Mavis Lucas, KS	Leola Oldridge, KS	Glenda Rokey, KS
Patricia Lukert, KS	Robert Oltjen, KS	Delinda Rosenberger, KS
Rick Lukert, KS	Shaun O'neil, KS	Randall Rosenberger, KS
Henry Macke, KS	Kevin O'neil, KS	June Rottinghaus, KS
Mary Macke, KS	Arlene Payne, KS	Walter Rottinghaus, KS
Linda Madzey, KS	Gerald Payne, KS	John Rottinghaus, KS
Bob Mayfields, KS	Merle Pech, KS	Mary Rottinghaus, KS
Donald And Elizabeth Meng, KS	Kim Petr, KS	David And Jan Rottinghaus, KS
John Meyburnn, KS	Richard Petr, KS	Daniel Rottinghaus, KS
Dwight Meyer, KS	Diane And Dow Pierce, KS	Thomas Rottinghaus, KS
Allen Meyer, KS	Jesse Pierce, KS	Eileen Rottinghaus, KS
Alice Meyer, KS	Michelle Pierce, KS	Leonard Rottinghaus, KS
Kenneth Meyer, KS	Richard Sr Piper, KS	James Ruddy, KS
John Meyer, KS	John Pollard, KS	Mary Ruddy, KS
Donald And Marcelline Meyer, KS	Mary Pollard, KS	Victoria Rudolph, KS
James Meyer, KS	Glenn Potts, KS	Kathryn Rueger, KS
Julie Meyer, KS	Marjorie Potts, KS	John Rueger, KS
Todd Miller, KS	Jeanette Prebyl, KS	Linda Rueger, KS
Leo Mohrman, KS	John Prebyl, KS	Elsie Ruhnke, KS

PRIVATE LANDOWNERS (CONTINUED)

Kansas (cont.)

Wayne Rush, KS
Danny Rush, KS
Alice Sauer, KS
Leroy Sauer, KS
James Sauer, KS
Douglas Schaefer, KS
Tamara Schaefer, KS
Charlet Schaible, KS
John Jr Schilling, KS
Vera Schilling, KS
Larry Schlesener, KS
Nola Schmidt, KS
Dorothy Schmitt, KS
Michael Schmitt, KS
Kenneth Schmitz, KS
Larry Schmitz, KS
Gilbert Schmitz, KS
Scott Schotte, KS
Kevin Schotte, KS
Kathleen Schraad, KS
John Schraade, KS
Marion Schuetz, KS
Schumann Family Trust, KS
Scoby Family, KS
Michael Scott, KS
Scott Family, KS
William Sechler, KS
Howard Sechler, KS
Wanda Sedlacek, KS
Ella Sedlacek Talbot, KS
Ken Shrivers, KS
Douglas Sibold, KS
Duane And Bonnie Slingsby, KS
Ron Smith, KS
Justin Smith, KS
Shanna Smith, KS
James Spellimeier, KS
Melba Spoo, KS

Kansas (cont.)

Robert Stallbaumer, KS
Sandra Stallbaumer, KS
Charles Staudenmaier, KS
Paul Staudenmaier, KS
Rebecca Steele, KS
Darrel Stoller, KS
Gloria Stoller, KS
Thomas Strahm, KS
Trent Strahm, KS
Dean Sudbeck, KS
Julie Sudbeck, KS
Betty Sudbeck, KS
Richard Sudbeck, KS
Helen Sumner, KS
Bernard&Tamara Sunnenberg, KS
Gerald Sylvester, KS
Sylvester Family, KS
Merton Talbot, KS
Leroy And Sharon Tangeman, KS
The Wm H Myers Trust, KS
Eldon Thomsen, KS
Delmer Toaden, KS
Ryan Toaden, KS
Matt Tollefson, KS
Lester Trentman, KS
Brett Trentman, KS
Patrick Urban, KS
Robert Van Epps, KS
Charlene Versch, KS
Loren And Norman Volle, KS
Martin Volle, KS
Ray Vonderschmidt, KS
Tracy Vonderschmidt, KS
Galen Walters, KS
Vickie Walters, KS
Riley Walters, KS
Wassenberg Family, KS
Donald Werner, KS

Kansas (cont.)

Stephanie Werner, KS
Dortha And Leslie Wikle, KS
Dale And Karla Williams, KS
Rodney Wilson, KS
Kenneth Wood, KS
Janet Woolsoncroft, KS
Jim And Kathy Yarrow, KS
Donald And Patsy Yaussi, KS
Ira L. Penner, KS

Kentucky

Gruber Family, KY

Louisiana

Lee-Roy Madison, LA

Maryland

Bateson Family, MD

Massachusetts

Ed Hoeckelmann, MA

Maine

Lucille Huber, ME
Patricio Mujica, ME
Veronica Mujica, ME

Minnesota

Duane Brodersen, MN
Anna Mae Broton, MN
Lars Conway, MN
Nicholas Delaney, MN
Paul Eberth, MN
Dorothy And Norman Evers, MN
Brent And Gail Fox, MN
Sharon Frank, MN
Virginia Froemke, MN
Charles & Kathleen Hentzen, MN
David Highness, MN
Alice And Maryann Hjelmstad, MN
Hott Family, MN
Alma And Donald Huber, MN
Marlene Johnson, MN
Frances Lingen, MN

PRIVATE LANDOWNERS (CONTINUED)

Minnesota (cont.)

Cecilia Lysne, MN
Michael Mueller, MN
Joan Odney, MN
Phyllis Petersen, MN
Norbert Rusch, MN
Tom Sandhei, MN
Lloyd Schmidt, MN
Paul Sticha, MN
Gladys Stromberg, MN
Sheryl Sutliff, MN
Linda Thomson, MN
Dan Urness, MN
Julie Urness, MN
James Venaas, MN
Frances Voss, MN
Janene Wandersee, MN
Nathan Wandersee, MN
Thomas Williams, MN
Douglas Wulf, MN
Joyce Wulf, MN

Missouri

John Abbott, MO
Linda (S) Adams, MO
Lois Adcock, MO
Dennis And Karen Ahal, MO
Michael And Phyllis Aley, MO
Beulah And Taylor Alkire, MO
Barbara And Charles Allard, MO
Kizziah Allen, MO
Brian Allen-Modnr, MO
Joan/John Andrzejewski, MO
Robert Angel, MO
Arthur H. Burkemper Trust, MO
Dennis Asbury, MO
Sammie Asbury, MO
Richard Aulbur, MO
James Babcock, MO
Debra And Douglas Bachtel, MO
James And June Bachtel, MO
Joan And Mark Backowski, MO
Catherine And Terry Bagby, MO
Jane And Kenneth Baker, MO
Richard Baldwin, MO
Melany Ballard, MO
John Bamberger, MO
Guy Barber, MO

Missouri (cont.)

Glenda Barnes, MO
Carol And Wayne Barnett, MO
Clarence Jr And Lorraine Barringer, MO
Sara Baskett, MO
Debbie And Ted Bauer, MO
Jesse And Terri Bauer, MO
Edwin And Harriet Bauer, MO
David Baugh, MO
Mark Baugh, MO
John And Margaret Beamon, MO
Erma Beasley, MO
Michael Beasley, MO
Eileen Beck, MO
Richard And Rita Beckman, MO
Jane Beetem, MO
Jeff And Vickie Bell, MO
Gregory And Karen Bell, MO
Roy Benne, MO
Brenda And Curtis Bennett, MO
Margo And Robert Benoit, MO
Floyd And Pamela Benson, MO
Charles And Martha Bentley, MO
Louise Bequette, MO
Diane And Mark Berkowitz, MO
Mark Bertels, MO
Stan And Edith Beumer, MO
Francis And Terry Biron, MO
Karen Blake, MO
Amanda And Edwin Blasé, MO
Mary And William Blaue, MO
William Blaue, MO
Adam And Nancy Blaue, MO
Eunice Blunk, MO
Glen F. Blunk, MO
Mary Forsythe & Bob Roberts, MO
Keith Bodenhausen, MO
Linda/Vance Bodenhausen, MO
Mary Bodenhausen, MO
Henry/Viola Boeckelman, MO
Jerry Boeger, MO
Boerding, MO
Sam Boerding, MO
Jim Boerding, MO
Boerding Family, MO
Cathy And Lane Bond, MO
Cathy And Wayne Bondy, MO
Alfred Jr Bondy, MO

Missouri (cont.)

Robert Bonney Sr., MO
Phyllis Bontz, MO
Theodore Borgmeyer, MO
Katie And Levi Borntrager, MO
Lydia And Moses Borntrager, MO
M Bryan Boschert, MO
Margaret And Meredith Boschert, MO
Monica Boschert, MO
Kenton & Victoria Boschert, MO
David Boschert, MO
Ray Boschert, MO
Mathilda Boschert, MO
James And Sally Bouril, MO
Craig And Rodd Boyer, MO
Jennifer Boyston, MO
June And Aubrey Bradley Jr, MO
Ronnie And Stella Brandow, MO
William Brandow, MO
Tony Brass, MO
George Braungardt, MO
Beverly And Victor Brewer, MO
Cheryl And George, Jr Bright, MO
Bonita And Todd Bristow, MO
Bettie And Samuel Britts, MO
Lorene Brokaw, MO
Michael Brooke, MO
William Brooke, MO
Carol And Charles Brown, MO
Adam And Herb Brown, MO
Juanita Brown, MO
Barbara And David Brown, MO
Brown Family Rev.Living Trust, MO
Garrison And Hazel Bruce, MO
Gary Bruce, MO
Ralph Bruce, MO
William Brunscher, MO
James Brunscher, MO
Brunstein Family, MO
Mary/Thomas Buckman, MO
Marshall Buder, MO
Ann And John Buehler, MO
Richard Buenemann, MO
Dorothy/James Burkemper, MO
Melvin Burkemper, MO
Christian/Virginia Burkemper, MO
Delbert/Patsy Burkemper, MO
Ernest Burkemper, MO

PRIVATE LANDOWNERS (CONTINUED)

Missouri (cont.)

Joyce Burnett, MO
Margret Burns, MO
Janice And Stuart Burnside, MO
Adolphus Busch, MO
Dixie And Leland Byrns, MO
Cathy And Harold Cannon, MO
Carol And Terry Carder, MO
Deborah And John Carey, MO
Karen Cargill, MO
Robert & Vernadeane Carroll, MO
Signa Carter, MO
Elizabeth And Marc Carter, MO
Donald Castillon, MO
Amanda And Rebecca Cato, MO
Chambers Family, MO
Alice And Ray Chastain, MO
Betty And Robert Chowning, MO
Esther&Franklin Christner Jr, MO
John Christopher, MO
Landfill Div.,City Of St Joseph, MO
Jerry Clem, MO
Blake Clevenger, MO
Carol And Rodney Clevenger, MO
Bobby And Jill Clevenger, MO
Rodney L. Clevenger, MO
Clevenger Family, MO
Herb Cochran, MO
Dixie And Michael Cochran, MO
Elisie Cockrell, MO
Helen Coe, MO
Helga And James Collier, MO
Gayel And Shirley Colliver, MO
Cook Family, MO
Dusti And Jamie Cooke, MO
Jason And Wendy Cooley, MO
Mary Cowie, MO
Jamie Cox, MO
Leland Cox, MO
Mike Craven, MO
Mary Creason, MO
Elaine And James Creech, MO
Betty Creech, MO
Floyd Cronen, MO
Jimmy And Vivian Crose, MO

Missouri (cont.)

Virginia Crouse, MO
Carol Crouser, MO
Debra And Mark Crow, MO
Luetta Crowley, MO
Luetta M. Crowly, MO
Jerry And Neta Crutchfield, MO
James Culwell Jr, MO
Darrell Curless, MO
Barbara And James Curp, MO
Billy And Delores Dameron, MO
Jill Daugherty, MO
John Daugherty, MO
Marie Daughtery, MO
Lorena & Robert Davenport, MO
Nancy Davenport, MO
Donald Davidson, MO
Dennis And Rita Davidson, MO
Bradley Davidson, MO
Harley Davidson, MO
Dennis Davidson, MO
David L. Davies, MO
Davies Family, MO
Chad Davis, MO
Brian Davis, MO
Rebecca Day, MO
Goldie Decker, MO
Lucy And William Deimeke, MO
Clarence And Janis Deimeke, MO
Standley Deloroese, MO
Amber And Todd Deornellis, MO
Jean And Millard Deshon, MO
Cathy And Edmond Deuser, MO
Brenda And Lynn Dickherber, MO
David And Thomas Doak, MO
Joseph Jr. Doll, MO
Wendy Donahue, MO
Harold And Roberta Dooley, MO
Ralph Dooley, MO
Marilyn And Terry Doss, MO
James & Darlene Dougherty, MO
Donald Ii Dowell, MO
Thomas Downs, MO
Rachel Doyle, MO
Robert Dreier, MO

Missouri (cont.)

Angela Drew, MO
Joseph And Sheila Driver, MO
Mary And William Dubbert, MO
Norbert Dubbert, MO
Harold And Mildred Dubbert, MO
Emily And Paul Dudley, MO
John Jr Duncan, MO
Jeanne Dunkmann, MO
Darrell Dunkmann, MO
Sue Durrett, MO
Josphine And Oliver Dwiggins, MO
Donald And Mary Dyer, MO
Mary And Thomas Dyer, MO
William And Catherine Dyer, MO
Jean Dyer, MO
Donald Eads, MO
Brian Easley, MO
Anna And William Eaton, MO
William Eddins Jr, MO
Beverly And James Edwards, MO
Mary Edwards, MO
Eva And Harold Eiken, MO
Mary Ell, MO
John And Victoria Elliott, MO
Barbara And Robert Elliott, MO
Carol And Howard, Jr. Elmore, MO
Michael And Tammy Elms, MO
Rodney Elms, MO
Darla Hall Emmendorfer, MO
Susie Emmerich, MO
Denise And Randy Evans, MO
M Kay And Richard Evans, MO
Donald And Teresa Evans, MO
Mary And David Sr. Evans, MO
Barbara And William Fairchild, MO
David And Michael Farley, MO
Fay Family, MO
Charles And Nellie Fecht, MO
Fred And Mary Fennewald, MO
Cynthia Fennewald, MO
Fennewald Family, MO
David And Mary Fickess, MO
Lorene And Paul Fickess, MO
Bob Fiese, MO

PRIVATE LANDOWNERS (CONTINUED)

Missouri (cont.)	Missouri (cont.)	Missouri (cont.)
Carl And Laverne Fisher, MO	Wayne Grable, MO	Samuel Hartman, MO
Carl Fisher, MO	Lynn And William Green, MO	Charles And Paula Hartmann, MO
Leda Fletcher, MO	Catina Green, MO	Carolyn And Donald Hatfield, MO
Gerald Fletcher, MO	Velma And Walter Green, MO	Lucille Hatton, MO
Floyd Belot Trust, MO	Patricia And Ralph Grier, MO	Lucille H. Hatton, MO
Jerry Flynn, MO	Hazel Griffin, MO	Cynthia And Kim Haverstick, MO
Selma Flynn, MO	Ida And Robert Griffin, MO	Bill Hayes, MO
Alice Flynn, MO	Thomas Jr Griffin, MO	Alida And Raymond Hayes, MO
Michael Flynn, MO	Frances Grotjan, MO	Carla And Glenn Hayes, MO
Catherine Forsyth, MO	Deborah And Joseph Gully, MO	Hayes Family Land Trust, MO
Keith Forsyth, MO	Marlene Haarmann, MO	Marlene Heislen, MO
Mary Forsythe, MO	John Hagemier, MO	Lorraine Heitmann, MO
Joyce And Robert Frakes, MO	Michael Hagen, MO	Mary And Michael Held, MO
Julie And Timothy Frazier, MO	John Haines, MO	Helmich Marital Trust, MO
Charles Freie, MO	Michael And Wanda Hale, MO	Charlotte Henderson, MO
Dennis And Patsy Freise, MO	Geraldine Hales, MO	Mary And Orville Hendricker, MO
Edward And Maryann Freise, MO	Russell And Shirley Hall, MO	Alberta And Kenneth Henebry, MO
Dean And Shirley Friedli, MO	Darren And Kathy Hall, MO	Donald And June Henebry, MO
Sylvia Friesz, MO	Nancy Hall, MO	Marvin Henke, MO
Gerald And Judith Friesz, MO	Everett And Janice Hall, MO	Jean And Wilfred Henke, MO
Donald Friesz, MO	Robert Halsey, MO	Dennis And Lebrinda Henke, MO
Dan Froneyberger, MO	Lucinda And Richard Ham, MO	Mary And Ralph Henke, MO
Jerry Fuemmeler, MO	Marcella & Thomas Handsome, MO	Fred And Patricia Henke, MO
Robert Gaateke, MO	Rhonda And Ronald Haney, MO	Larry Henke, MO
John Gall, MO	Carolyn And George Hanke, MO	Charles Henke, MO
Jean And Virgil Gentry, MO	Vincent Hanke, MO	Joni And Timothy Henry, MO
Robert Gerardy, MO	Shirley Har, MO	Mary And Gary Henry, MO
Chris Gieseker, MO	Michael/Wendy Hardman, MO	Bob Henry, MO
Lawrence Gieseker, MO	Carl And Dorothy Harke, MO	Gary Henry, MO
Cathy /Timothy Gieseker, MO	Betty Harke, MO	Jack And Shirley Hickerson, MO
Charles And Linda Gilman, MO	Eugene/Patricia Harmon, MO	Maxwell And Paula Hicks, MO
Andrew/Clara Gingerich, MO	Dwight And Leo Harper, MO	James Hicks, MO
Chrissie And Fannie Gingerich, MO	Evelyn Harper, MO	Karen/Matt Higginbothom, MO
Donald And Sandra Goeke, MO	Dwight Harper, MO	Justin Hill, MO
Dennis Goeke, MO	Victor Harrell, MO	Jason And Sherry Hill, MO
Dorothy Golden, MO	John Jr. And Sheri Harter, MO	Charles & Margaret Hinchey, MO

PRIVATE LANDOWNERS (CONTINUED)

Missouri (cont.)	Missouri (cont.)	Missouri (cont.)
Willard Hoagland, MO	Barbara And Delano Jones, MO	Charles Kline, MO
Dean And Steve Hobbs, MO	Michael Jones, MO	Sara Kline, MO
Dean Hobbs, MO	Christina And John Jones, MO	Ann Kline, MO
Frances (Buck) Hoeckelmann, MO	Adrian And Alfred Jones, MO	Dennis Kline, MO
Dennis Hoelting, MO	Karla And Russell Jones, MO	Linda Kluner, MO
Judith And Paul Hoer, MO	Rogers Jones, MO	Julie Knocke, MO
Carl Hoerman, MO	Bryce Jones, MO	Kevin Knocke, MO
Leila Holaday, MO	Alfredjones, MO	Dorothy Knox, MO
Daniel Hollaway, MO	Mehrdad Jou, MO	Mary Knox, MO
George And Vickie Holmes, MO	Charles/Joann Jungermann, MO	Orvie Knox, MO
Jack Holt, MO	Charles And Joan Kahler, MO	Helen Knutter, MO
Samuel And Stanley Hoover, MO	Kaiser Family, MO	Jody Knutter, MO
Paul Horner, MO	Leonard Kaplan, MO	Robin Knutter, MO
Sue Hughes, MO	Leola/Wallace Keeteman, MO	Harold Koch, MO
Constance & Kenneth Hulett, MO	Michael Keeven, MO	Pauline Koch, MO
Adelaide Huncker, MO	Kehoe Family, MO	W. Koch, MO
Ronald Hundley, MO	Micheael And Donna Kelley, MO	Diana Koshinski, MO
Edward Hunker, MO	Jay And Ronda Kelly, MO	Herbert Koshinski, MO
Brian And Vickie Hunt, MO	Kelly Family, MO	Robert Kottman, MO
Kenneth Hutchinson, MO	Anitasue/RayMOnd Kern, MO	Sandra Kottman, MO
Hildred Hutchinson, MO	Billie And Kenneth Kerpash, MO	Mary Ann Krauss, MO
Marvin Hutchinson, MO	Michael Kersey, MO	Dorothy Kretzer, MO
Fred And Linda Hyde, MO	Bernard And Dorothy Kertz, MO	Ronald Kretzer, MO
Phillip And Sandra Iman, MO	Clifton Kieffer, MO	John Kretzer, MO
Donna And Kenneth Inglis, MO	Wilma Kieffer, MO	Marsha Kretzer, MO
Betty And Donald Sr Ireland, MO	Susan Kilpatrick, MO	Joseph Kroner, MO
Donald And Betty Ireland, MO	Delores King, MO	Rose Kroner, MO
Betty Isgrig, MO	Max King, MO	Henry Kruessel, MO
Claude And Judy Jacobs, MO	Vernon King, MO	Gerald Kruse, MO
Nancy James, MO	Dorothy King, MO	Wilma Kruse, MO
Brenda And James Janecek, MO	Gary King, MO	Berniece And Ernest Kunkel, MO
Dorothy And Robert Janitch, MO	John Kirchhoff, MO	Bernice Lang, MO
Jarman Family, MO	Pauline Kirchhoff, MO	Frederick Lang, MO
Jeannie Jenkins, MO	Katherine Kirschner, MO	Dixon Leamer, MO
John And Linda Johnson, MO	George Kirschner, MO	Malissa Lee, MO
Nadine And Rick Johnson, MO	Phillip Kirschner, MO	Duane And Sandra Lee, MO
Leonard Johnson, MO	Earl Jr Kirschner, MO	Connie Leeson, MO
Johnson Family, MO	Charles Kleinsorge, MO	Robert Leeson, MO
Sidney Johnson Jr, MO	Lois And Mary Kline, MO	Huge Lehnen, MO

PRIVATE LANDOWNERS (CONTINUED)

Missouri (cont.)	Missouri (cont.)	Missouri (cont.)
Dennis And Judith Lehnen, MO	Tammy Loubey, MO	Mary Marple, MO
Loretta Lemkemann, MO	Stevelove, MO	Kimyla Martin, MO
Nicholas Lemkemann, MO	Tracy Loveland, MO	Michael Martin, MO
Leighton Lester, MO	Elizabeth Lowry, MO	Donna Martin, MO
Helen Lester, MO	Charles Lucas, MO	Harvey Martin, MO
Randy Lester, MO	Francis Lyon, MO	James Martin, MO
Vickie Lewis, MO	Gwendonline Lyon, MO	Joan Martin, MO
Mark Lewis, MO	Mary Maasdam, MO	Dennis Martin, MO
Pamela Lewis, MO	Robert Maasdam, MO	Earl Martin, MO
John And Rose Leykamp, MO	Gary Machens, MO	Frank Martinek, MO
Julie Libich, MO	Aloysius Machens, MO	Jeaniemaskill, MO
William Libich, MO	Joan/Raymond Machens, MO	Helmi Mason, MO
Brad Libich, MO	Dewayne Machens, MO	Norbert Mason, MO
Glenda Jane Liday, MO	Tricia Machens, MO	Franz Mayer, MO
Carol Lienemann, MO	Margaret/Thomas Machens, MO	Curtis/Gwendolyn Mayes, MO
David Lierheimer, MO	Evelyn Mackey, MO	Terry Mc Clatchey, MO
E Lierheimer, MO	Orma Mackey, Jr, MO	David Mc Knight, MO
Edna Lierheimer, MO	Ron Maddison, MO	Alpha Mc Queen, MO
Kenneth Lierheimer, MO	Brian Maenner, MO	Larry Mc Queen, MO
Daniel Lierheimer, MO	Jennifer Maenner, MO	James McAfee, MO
Charles Lindsey, MO	Dorothy Mallory, MO	Mary McBee, MO
Claron Lingo, MO	Howard Mallory, MO	Jay McBee, MO
Mary Lingo, MO	Norman Mallory, MO	Stephen McBee, MO
Gerald Link, MO	Alvin Malott, MO	Robert McBee, MO
Martha Link, MO	Emily Mangano, MO	John McCoy, MO
Deborah Link Gorman, MO	Gino Mangano, MO	Wanda McCoy, MO
Evelyn Linneman, MO	Robert Manion, MO	William McCumber, MO
Roger Linneman, MO	Larry Mann, MO	Kenneth/Stacey McCune, MO
Littleton Family, MO	Sandra Mann, MO	Linda And Ronald McElwee, MO
Patricia Livingston, MO	Anne Manns, MO	McGrath Living Trust, MO
Larry Livingston, MO	Robert Manns, MO	Tim McHugh, MO
Molly Livingston, MO	Joleen Manson, MO	Charles McKeown, MO
Charlotte Lock, MO	Joseph Manson, MO	Mary McKeown, MO
Emma Logsdon, MO	Ann Manson, MO	Bonnie McKeown, MO
John Logsdon, MO	Billy Dale Marcell, MO	Roger McPheeters, MO
Clay Long, MO	Glenna Marcell, MO	Daniel McReynolds, MO
Teresa Long, MO	Joyce And Kenneth Marcum, MO	David McReynolds, MO
Ricky Loubey, MO	William Marple, MO	Mark McReynolds, MO

PRIVATE LANDOWNERS (CONTINUED)

Missouri (cont.)

Michelle McReynolds, MO
Nellie Jo Mcwlliams Miller, MO
Mary Mead, MO
Carol Meierotto, MO
Dennis Meierotto, MO
Ryan Mellon, MO
Sarah Mellon, MO
George Melson, MO
Mary Melson, MO
Michael Meoli, MO
Sharon Meoli, MO
Alfred Meyer, MO
Carole Meyer, MO
Scott Meyer, MO
Robert Meyer, MO
Ruth Meyer, MO
Francis Meyer, MO
Walter Meyer, MO
Clarence Meyer, MO
Laura Meyer, MO
Alen Michalik, MO
Carol Michalik, MO
Leona Midyett, MO
James Miljavac, MO
Ervin And Lydia Miller, MO
Levi And Sara Miller, MO
Eli And Susie Miller, MO
Levi And Lizzie Miller, MO
Emma And Noah Miller, MO
Levi Miller, MO
Millie Miller, MO
Nellie Miller, MO
Martha Minner, MO
Stanley Mintert, MO
Michael And Stanley Mintert, MO
Dorothy Mintert, MO
Joseph Mintert, MO
Bernard Mintert, MO
Mary Mintert, MO
Charles Mintert, Mo

Missouri (cont.)

Michelle And Robert Mittler, Mo
Albert And Diana Monteil, MO
Carolyn And John Mooney, MO
Dearl And Linda MOore, MO
Maurice Moore, MO
Charles Jr./Lurlye Moore, MO
Charles And Susan Moore , MO
Gwenda Moose, MO
Dale Sr Morris, MO
Joan M0rris, MO
James Morris, MO
James Mott, MO
Lester Mount, MO
Roger Mudd, MO
Dale Mudd, MO
Lorenz Mueller Iii, MO
Arthur Muensterman, MO
Pamela Muensterman, MO
Pat Mujica, MO
John Myers, MO
Rochelle Myers, MO
Melvin Jr Neustadt, MO
Violet Neustadt, MO
Patsy Newton, MO
James Niederschulte, MO
Ellen Niemeyer, MO
William Niemeyer, MO
Arnold Nixon, MO
Laura And Wesley Norton, MO
Benjamin Nothstine, MO
Charla Nothstine, MO
Dan O'connor, MO
Grace Odell, MO
Olin Oden, MO
Shirlie Ogle, MO
O'neal Family, MO
Henry Orf, MO
Susanne Orf, MO
Katherine Owings, Mo

Missouri (cont.)

Tom Ossmann, MO
Ostrander Family, MO
Mickey Owen, Mo
Douglas Owsley, MO
Ralph Parker, MO
Edwin Parker, MO
Patricia Parket, MO
Larry Parrish, MO
Mary Parrish, MO
Paula Patient, MO
Barry Patton, MO
Anita Patton, MO
Faye Pavelka, MO
James Payne, MO
Kendra Payne Mcgill, MO
Camille Peasel, MO
Daniel Peasel, MO
Peasel Family, MO
Cliff Perry, MO
Robert Peters, MO
Robert Peters, MO
Helen And Larry Peters, MO
Eli Petersheim, MO
Mary Petersheim, MO
Kristine Pettet, MO
Janice Pettet, MO
Allen Piles, MO
Jason Piper, MO
Gerald Pittman, MO
Mike Pitts, MO
Helen Pitts, MO
John Pitts, MO
Michael Platte, MO
Duane And Penny Plotner, MO
Eunice Poggemeiek, MO
Jeanne And Michael Pollard, MO
Barbara (S) Porter, MO
Marcella Post, MO
Virgil Post, MO
Fredrick Potter, MO

PRIVATE LANDOWNERS (CONTINUED)

Missouri (cont.)	Missouri (cont.)	Missouri (cont.)
City of Salisbury Potts Mem.Pk, MO	Marian Richardson, MO	Van Sr. Samuels, MO
Nellie Powell, MO	Eric Ridenhour, MO	Howard Sanders, MO
John Prinster, MO	Lisa Ridenhour, MO	Clemens Sauter Iii, MO
Bonnie Prinster, MO	Ollie Riggs, MO	Patricia Sauter, MO
Phillip Prinster, MO	Bob Roberts, MO	Mary Sauter, MO
Clarance Prinster, MO	Alan Rock, MO	Vernon Sauter, MO
Prinster Family Trust, MO	James And Janet Rock, MO	Patricia Scavada, MO
Doyle Proctor, MO	Myrna Rodgers, MO	Janice Schafer, MO
Lela Proctor, MO	Barbara Roe, MO	Richard Schafer, MO
Bobbie Propes, MO	Richard Roe, MO	Mike Schaper, MO
Cynthia Propes, MO	Linda Rogers, MO	Elenore Schewe, MO
David Propes, MO	William Rogers, MO	Carolyn & Clem Schlueter Jr, MO
Lillian Propes, MO	Earl Rogers, MO	Schmitz Family, MO
Joe Prouhet, MO	David And Debbie Roling, MO	Janet Schroeder, MO
Wilma Punzo, MO	Carolyn Romine, MO	Linda And Roger Schroeder, MO
Anthony Punzo, MO	John Romine, MO	James Schuette, MO
Steven Punzo, MO	Richard Rooney, MO	Tina Schuette, MO
Doris Quick, MO	Walter Rooney, MO	Debra Schuette, MO
Teddy Quick, MO	Naomi Rose, MO	Gerald Schuette, MO
Donna Quinlan, MO	Douglas Rose, MO	Betty Schulze, MO
James Quinlan, MO	Kala Rose, MO	James Schulze, MO
Marlene Quinn, MO	Sammie Rose, MO	John Schumacher, MO
Dr George Quinn, MO	Fred Jr Rosenbohm, MO	Marilou Schumacher, MO
John Quinn, MO	Rosenbohm Family, MO	George Schupback, MO
Brenda Rahn, MO	Donald Ross, MO	Jewell & Dorothy Schuster, MO
Curtis Randel, MO	Edna/Marvin Rothermich, MO	Steve Schuster, MO
Richard Reddell, MO	Cal Rowan, MO	Theresa Schuster, MO
David Reddick, MO	Mark Ruether, MO	Ellen Schutte, MO
Mikeal Reichardt, MO	Traci Ruether, MO	Gary Schutte, MO
Matthew Reichert, MO	Karen Runions, MO	Robert Schutte, MO
Shaun Reid, MO	Larry Runions, MO	Lindell Sconce, MO
Kathy Reische, MO	Donna Ruoff, MO	Mary Sconce, MO
Mitchell Reische, MO	David Ruoff, MO	Ron Sconce, MO
Jack Reische, MO	Richard Ryan, MO	Donald Scott, MO
Jane Reynolds, MO	Sandra Ryan, MO	Mildred Scott, MO
W Iv Richards, MO	John Ryan, MO	Catherine Seeburgen Trust, MO
Cecilia Richards, MO	Eugene Ryan, MO	Kathy Seevers, MO
Charles Richardson, MO	Zeta Ryan, MO	Stephen Seevers, MO
Paul Richardson, MO	Norman Saale, MO	Floyd Seidel, MO
Judy Richardson, MO	Marcine Sample, MO	Marilyn Seidel, MO
Keith Richardson, MO	Michael Sample, MO	Felicia Semchee, MO

PRIVATE LANDOWNERS (CONTINUED)

Missouri (cont.)

Thomas Semchee, MO
Carolyn Shaffer, MO
Stanley Shaffer, MO
Ruth Sharp, MO
Scott Sharp, MO
Jace Shea, MO
Jesse Shea, MO
Eugenia Shellabarger, MO
Gene Shellabarger, MO
Douglas Shelton, MO
Donald Shelton, MO
Joy Shelton, MO
Genevieve Sherman, MO
William Sherman, MO
James Shine, MO
Diane Shine, MO
Anna Shire, MO
Philip Shire, MO
Betty Shoemaker, MO
Ben Simmons, MO
Evralean Simmons, MO
Loyd Simpson, MO
Patricia Simpson, MO
Jeffrey Sims, MO
John Sims, MO
Karen Sims, MO
Carl Sloan, MO
Mary Sloan, MO
Helen Sloan, MO
Evelyn Smith, MO
William Smith Jr, MO
Carol And Gerald Smith, MO
Geoffrey Smith, MO
Carl Sneed, MO
Jane Sneed, MO
Jason Snodgrass, MO
Paul Soriano, MO
Willis Speiser, MO
Kathleen Splean, MO
Glennon Sprehe, MO
Sherrie Sprehe, MO
Bob Sprouse, MO

Missouri (cont.)

Paula Sprouse, MO
Edward Spurling, MO
Linda Spurling, MO
George Stallo, MO
Nayna Stallo, MO
George Stamper, MO
Jay Standley, MO
Judith Starvon, MO
Thomas Starvon, MO
James Staub, MO
Nadine Staub, MO
Doris Steiman, MO
Edward Steiman, MO
Mark Steiman, MO
Steinhoff Family, MO
Steinmann Family, MO
Darlene Stephens, MO
Barbara Stephens, MO
Warren Stephens, MO
Donald Stevens, MO
Robert Stewart, MO
Barbara Still, MO
Darrell Still, MO
Mary Stipe, MO
Rosemary Stipe, MO
Stockmor Living Rev.Trust, MO
Jeremy Stone, MO
Lynn Stone, MO
James Stone, MO
Joyce Stone, MO
Beverly Straight, MO
Robert Straight, MO
Gary Stuchlik, MO
Chris Stuckenschnieder, MO
William Sturm, MO
Nancy Sutton, MO
Vivian Swanson, MO
Wayne Swanson, MO
Helen Swartz, MO
Robert Sweany, MO
Daniel Swiney, MO
Lynn Switzer, MO

Missouri (cont.)

Stanley Switzer, MO
Junita Sykes, MO
Mitchell Sykes, MO
Donald Sypkens, MO
Sherri Tarwater, MO
Brent Taylor, MO
Deborah Tayon, MO
Harry Tayon, MO
MOllie Teel, MO
Tony Teel, MO
Jerry Templeton, MO
Kent Templeton, MO
Terri Templeton, MO
Edward Thiel, MO
Carol Thompson, MO
Chad Thompson, MO
Mary Thompson, MO
Bobby Thornhill, MO
Marvalee Toebben, MO
Edward Townsend, MO
Bruce Trammell, MO
Linda Trammell, MO
Anna Trauernicht, MO
James/Rosalie Tregnago, MO
Albert Troyer, MO
Daniel Troyer, MO
Edna Troyer, MO
David Trussel, MO
Bobbie Trussell, MO
Juanita Trussell, MO
Miloney Tunnage, MO
Phillip Tunnage, MO
Anne/Thomas Turnbaugh, MO
Elsie Turnbull, MO
Harold Turnbull, MO
Ivette Turner, MO
Michael Turner, MO
Charles Tutt, MO
Kathy Tutt, MO
Edward Twellman, MO
Joseph Twellman, MO
Elizabeth Twitty, MO

PRIVATE LANDOWNERS (CONTINUED)

Missouri (cont.)

Frank Twitty, MO
Ricky Tyler, MO
Edwin Tyler, MO
Gail Tyler, MO
Candace Tyson, MO
Brenda Underwood, MO
Carol Underwood, MO
Deborah Unternaehrer, MO
Robert Unternaehrer, MO
Mary Vance, MO
Rodney Vance, MO
Philip Vandel, MO
Traci Vandel, MO
Sammy Vaughn, MO
Betty Vaughn, MO
Cleo Vaughn, MO
Norma Vaughn, MO
Ernest And Ritavaughn, MO
Berniece Vitt, MO
James Voss, MO
Tammie Voss, MO
Marleen Waechter, MO
Roy Waechter, MO
Darlene Waggoner, MO
Jeffrey Wagner, MO
Joyce Wagner, MO
Bryce Jr Wagner, MO
Kathy Wagner, MO
Jennifer Walljasper, MO
Melissa Walton, MO
John Watson, MO
Marilyn Watts, MO
Darlene Weakley, MO
Larry Webb, MO
Lee Webb, MO
Catherine Weber, MO
Clemance Weber, MO
Marlyn Weber, MO
Thomas Weber, MO
Beth Weber, MO
John Weber, MO
Leroy Weimer, MO

Missouri (cont.)

Wilma Weimer, MO
Ann Weimer, MO
Randall Weimer, MO
Atheleen Welch, MO
Leila Wemhoff, MO
Vincent Wemhoff, MO
Don And Donna Wemhoff, MO
Merl Wemhoff, MO
Don Wemhoff, MO
Katherine Wenger Owing, MO
James Werner, MO
Samuel Werner, MO
Linda West, MO
Thomas West III, MO
Gracewest, MO
Elaine Westerveld, MO
John Westerveld, MO
Darrell Westhoff, MO
Vicki Westhoff, MO
Helen Westhoff, MO
Harold & Patricia Westhoff, MO
Helen Wheeler, MO
Roger Whetsell, MO
Allen White, MO
Dorothy White, MO
David Whitehead, MO
Billy Whitworth, MO
Jarrotte Whyte, MO
Kelley Whyte, MO
Donna Widmer, MO
Leona Wienhaus, MO
Henery Wienhaus, MO
Marilyn Wienhaus, MO
Karen/Raymond Wilbers, MO
Robert Wilcox, MO
Sandra Wilcox, MO
Margaret Wilcox, MO
Robert Wilcox, MO
Carolyn And Clifford Wilke, MO
Paul Wilke, MO
Wilke Family, MO

Missouri (cont.)

Claude And Hope Wilkinson, MO
Fred & Geneva Willbrand Jr, MO
Laura And Roy Williams, MO
Diane Williams, MO
Michael Williams, MO
Robert Williams, MO
Susan Williams, MO
Angela Williams, MO
Matthew Williams, MO
Arthur Williams, MO
Susan Williams, MO
Rodney Willingham, MO
Annette And James Wilson, MO
Nelson Wilson, MO
Jon Wilson, MO
Derek And Jennifer Wilson, MO
Grace Winberry, MO
Dick And Shirley Windmiller, MO
Ruby Wing, MO
Joseph Wing Jr, MO
Galen Winger, MO
Virginia Winger, MO
Harold/Winnie, MO
Shawn Witkowski, MO
Carol Witte, MO
Donald Witte Sr., MO
Candance Wolfe, MO
John Wolfe, MO
Ruth Woodland, MO
Dorothy Wortmann, MO
John Wortmann, MO
Wright Family, MO
Nancy Wyss, MO
Fannie And Samuel Yoder, MO
James And Debra Young, MO
Barbara/Roosevelt Young Jr, MO
Helen Zeikle, MO
RayMOnd Zeikle, MO
Charles Zeller, MO
Millie Zeller, MO
Sherry Zeller, MO

PRIVATE LANDOWNERS (CONTINUED)

Missouri (cont.)

Nanette Zeysing, MO
Robert Zeysing, MO
E K Zinna, MO
Jane Zinna, MO
Robin Zuroweste, MO
Frederick Zykan, MO
Karen Zykan, MO
Jack Down, MO
John Everly, MO
Haas Family, MO
Leatherman Family, MO
Ringgenberg Family, MO
Thompson Family, MO
Wilson Family, MO
Jason Hill, MO
Ruth King, MO

Montana

Marlis Dodds, MT
Bonnie And Elver Hehn, MT
Charles Johns, MT
Jeanne Smeins, MT
Ronald Smeins, MT

North Carolina

Houser Family, NC

North Dakota

Joe Zahadkha, ND
June Aabye, ND
C. Aafedt, ND
Allen Aarseth, ND
Joann AND Peter Almen, ND
Lenhart Almen, ND
Jacob Andersen, ND
Gary Delaine Anderson, ND
Lee Anderson, ND
Gladys Anderson, ND
Carl Anderson, ND
John Anderson, ND
Beverly Anton, ND
Raymond Banderet, ND
Emil /Mable Banderet, ND
Laurie / Robert Banderet , ND

North Dakota (cont.)

Terri A. Barta, ND
Eleanor Becker, ND
Larry Behm, ND
Charles And Hilda Belanus, ND
James/Teresa Belanus, ND
Therese Benoit Charrier, ND
Darlene Benzel, ND
Clinton/Wayne Bernhoft, ND
Isabella Bertram AND Family, ND
Edward Bessa, ND
Janice B.Bhop, ND
Dennis Bina, ND
Kevin AND Janice Bishop, ND
Gloria Bock, ND
Delores/Larry Bohnenkamp, ND
Kevinbonham, ND
Lars Borgen, ND
Deborah AND James Bosse, ND
Jason Bosse, ND
Ryan Braaten, ND
Timothy Brakke, ND
Timothy A.Brakke, ND
Barbara & Wayne Brandvold, ND
Tricia Breckheim, ND
Perry Brintnell, ND
Dennis Brodina, ND
Anna/ John Broton, ND
Ardell Bruckner, ND
Deborah / John Bruns, ND
Mark Bucher, ND
Lynette Bunn, ND
Jeffrey Bunn, ND
Kathy / Perry Burchill, ND
Burchill Family, ND
Francis Bures, ND
Donna Burton, ND
Shirley Buttke, ND
Christopher /Julie Byron, ND
Mayo Byron, ND
Dwight /Elaine Byron, ND
Eugene AND John Capp, ND

North Dakota (cont.)

Brian Capp, ND
John Capp, ND
Roger/Rosanna Carignan, ND
RaNDy Carignan, ND
Kevin Carlson, ND
Luke Carlson, ND
Dana / Larry Carlson, ND
Dennis Carlson, ND
Jason Carlson, ND
Brandon Cavett, ND
Jolene/Roland Christenson, ND
Floyd AND Patricia Clark, ND
Myron Clauson, ND
Ken Clauson, ND
Myrtis Clauson, ND
Clarice/ William Coit, ND
Marlene AND Royce Dahl, ND
David Dahl, ND
Chuck Damschen, ND
Richard Davis, ND
Dan Delhoyde, ND
Lori Dick, ND
Gaylen / Janna Dick, ND
Dale Dick, ND
Dorothy Ackley Family Trust, ND
Raymond Dunnigan, ND
Rita Dunnigan, ND
Donald Dvorak, ND
Don Dvorak, ND
June /Omer Ellingson, ND
Dee / Terry Ellingson, ND
Ruth Emery, ND
Randy Engquist, ND
Espelien Family, ND
Johnson Farms Family Prtnship, ND
Gapp Family, ND
Longtin Family, ND
Dean / Marvel Fiala, ND
Lindsey Fingarson, ND
John Finstad, ND
Fischer Family, ND

PRIVATE LANDOWNERS (CONTINUED)

Missouri (cont.)	North Dakota (cont.)	North Dakota (cont.)
Bernice Flanagan, ND	Richard Heck, ND	Warren Johnson, ND
Darren Fougner, ND	Carlton / Linda Heck, ND	Valerie / David Johnson, ND
Donald Fougner, ND	Scott Heck, ND	Teresa Johnson, ND
Gary Fougner, ND	Tom Heimbach, ND	Warren K. Johnson, ND
Bradley Frovarp, ND	Margaret & Randy Hemminger, ND	Junell Jonasson, ND
Al Fugal, ND	Aaron Henderson, ND	Den Jorgensen, ND
Laverne V Gaarder, ND	James Henderson, ND	Marlene Jorgenson, ND
Lawrence Gapp, ND	Paul Henderson, ND	Jerome / Susan Kappenman, ND
Arthur Gapp, ND	Brian Henderson, ND	Francis S. Karnik, ND
Evelyn GartlaND, ND	Marjorie Herr, ND	Scott Karnik, ND
Gene Gehrke, ND	Duane Heuchert, ND	Kermit Kaufman, ND
Leslie Geir, ND	James Hillerson, ND	Carla Kelly, ND
Jeanette / Ronald Gemmill, ND	Hillesland Family, ND	Kelly Family, ND
Gordon AND Wilma Gemmill, ND	Kevin Hodny, ND	Terry Kempel, ND
Jeff Gilbertson, ND	Kevinhodny, ND	Michael Kenyon, ND
Verdell Gilbertson, ND	Russell Hoge, ND	Larry / Shirley Kenyon, ND
Donald / Mayvis Gilbertson, ND	Lynn Holcomb, ND	Ryan Kenyon, ND
Rodney Gilderhus, ND	Eve Holland, ND	Tom K JellaND, ND
Norma Gire, ND	Chris Holm, ND	Francis K JellaND, ND
Dale AND Peggy Good, ND	Walter Holm, ND	Orville K JellaND, ND
Kay Gorder, ND	Holm Family, ND	Ramona Klein, ND
Brady Paulgrant, ND	LiNDa Holmgren, ND	Cindy Klein, ND
Ron Greenmeyer, ND	Wallace Horejsi, ND	Ramona Klein, ND
Ardyce Gregerson, ND	Larryhoverson, ND	Myron Kloster, ND
Evelyn / Harlan Grove, ND	Newton Huffman, ND	Todd Knudson, ND
Evelyn L.Grove, ND	Gregory/Sharon Huffman, ND	Keith Knudson, ND
Tim Haakenson, ND	Bryce Huseby, ND	Peggy / RaNDall Koch, ND
Myron Hammer, ND	Brycehuseby, ND	Josephine/Theodore Koch, ND
Donna Hannon, ND	Gary/ Mary Ihry, ND	Merle Kratochvil, ND
Dennishansel, ND	Neal Ihry, ND	Marle / Linette Kratochvil, ND
Olga Hanson, ND	Trevor Jacobsen, ND	Dane / Mary Kreidelcamp, ND
Lynelle / Timothy Hanson, ND	Jacobsen Family, ND	R Krueger, ND
Brian Hardy, ND	Carol Jacobsen, ND	R.C. Krueger, ND
Penelope Hardy, ND	Claudia /James Jacobsen, ND	Gregory Kueber, ND
Hardy Family, ND	Darrell / Debbie Jallo, ND	John AND Patsy Kueber, ND
Douglas Harris, ND	Carol / Harold Jallo, ND	Kelly Kueber, ND
Jay Harris, ND	Anton / Kenneth Johansen, ND	Johnkueber, ND
Arma Haseleu, ND	John Johnson, ND	Jack Lambercht, ND
Darwin Haugaard, ND	Darlene / John Johnson, ND	Jack Lambert, ND
Duane Hayen, ND	Mark Johnson, ND	Tom Langemo, ND
Barbara / John Hayen, ND		Kelly Langle, ND

PRIVATE LANDOWNERS (CONTINUED)

North Dakota (cont.)

Robert Larson, ND
Phyllis Larson, ND
Galen Larson, ND
Larson Family, ND
Jarry Lautt, ND
Lisa Lautt, ND
Craig Law, ND
Wilfred AND Almira Law, ND
James Law Family, ND
John Lawson, ND
Julius Lee, ND
Paul Lee, ND
Debra Letkeman, ND
Alfred LiNDell, ND
Mary LiNDell, ND
Jeanette LiNDsay, ND
Warren LiNDvold, ND
Clint Linstad, ND
Ann Linstad, ND
Merlin Linstad, ND
Duane Lippert, ND
Larry Locken, ND
Phillip Longtin, ND
Corliss Longtin, ND
Roderick Longtin, ND
Gary Lynnes, ND
Eldon Maasjo, ND
Ruth Maasjo, ND
David Maasjo, ND
SaNDra Maasjo, ND
Bonnie AND James Magill, ND
RhoNDa Marshall, ND
Robert Marshall, ND
Paul Mathews, ND
Eugene Mc Mangle, ND
Jean Mc Mangle, ND
Peggy Mcculough, ND
Dave Mcglynn, ND
Eric Meberg, ND
RaNDy Meece, ND
Roger Meece, ND
Robert Meece, ND

North Dakota (cont.)

Charlene Meehl, ND
Chad Melville, ND
Paul Metcalf, ND
Jim Metelmann, ND
Stanley Metelmann, ND
Rodney AND SaNDra Meyer, ND
Jason Meyer, ND
Jerod Meyer, ND
John Mickkelson, ND
Peder Mikkelson, ND
John Mikkelson, ND
Donald Miller, ND
Homer Moffett, ND
Rita Moffett, ND
Hovey Molstad, ND
John Molstad, ND
Pamela AND Thomas Moore, ND
Jay Morgan, ND
Davemunkeby, ND
Munkeby Family, ND
Myrtle Nelson, ND
RaNDy Nelson, ND
Gary Nelson, ND
Sherry Nelson, ND
Constance Nelson-Skoog, ND
Karven Nepstad, ND
Lana Nicholas, ND
Harvey Nicoli, ND
Louis Nicoli, ND
Janet Nicoli, ND
Jerome Noeske, ND
Darrell Nottestad, ND
Ellen Nottestad, ND
Curt Novak, ND
Mark Novak, ND
Janice AND Rodney Nygard, ND
Kim Olson, ND
Tracy Olson, ND
Kenneth Olson, ND
Annalee Olson, ND
Howard Olson, ND
Kenneth Olson, ND

North Dakota (cont.)

Tracy Olson, ND
Kenneth Olson, ND
Annalee Olson, ND
Howard Olson, ND
Kenneth Olson, ND
Lauri Olson, ND
Troy Olson, ND
Cheryl Olson, ND
Harold Olson, ND
William Olson, ND
Robert Olson, ND
Ruth Olson, ND
Colleen Olson, ND
Russel Olson, ND
SimuNDson Orville, ND
Perry Ostmo, ND
Overby Living Trust, ND
George Overn, ND
Karen Overn, ND
LiNDa Palmer, ND
Norma Paulson, ND
Ralph Paulson, ND
Beverly Paulson, ND
Scott Pedersen, ND
Mark Pedersen, ND
Bruce Pedersen, ND
Delaine Peoples, ND
Paul Peoples, ND
Mark Peterson, ND
James P Peterson, ND
Dorothy Peterson, ND
Joel Peterson, ND
Michael Peterson, ND
Warren Peterson, ND
James Peterson, ND
Annella Pfeifer, ND
Loren Pfeifer, ND
Scott Pfeifer, ND
Michael Pithey, ND
Janet Pokrzwinski, ND
Clayton Pokrzywinski, ND
Matt Powers, ND

PRIVATE LANDOWNERS (CONTINUED)

North Dakota (cont.)	North Dakota (cont.)	North Dakota (cont.)
F.W.Praska, ND	Michael Schwab, ND	Harold SuNDvor, ND
Earl Priebe, ND	Roger Schwan, ND	Helen SuNDvor, ND
Marline Priebe, ND	Calmer Sebby, ND	Larry Svenningsen, ND
Evelyn Pross, ND	Erena Seboe, ND	Deborah Svenningsen, ND
Brent Ptacek, ND	Jessi Seelye, ND	Rodd Svenningsen, ND
RaNDy Ptacek, ND	Ronald Setness, ND	Howard Svenningsen, ND
Donald Quam, ND	Bruce Shanenko, ND	Mark Svenningsen, ND
Julia Quam, ND	Greg Shanenko, ND	Shirley Svenningsen, ND
Bruce Ranum, ND	Jeremy Shanenko, ND	Gordon/Ranee Svenningsen, ND
Gladys Ratzlaff, ND	Howard Shelton, ND	Jody Svenningsen, ND
Gary Rodine, ND	LiNDa Shelton, ND	Arvid Swendseid, ND
Kevin Rodine, ND	James T. Shirek, ND	Ardis/ Wayne Swendseid, ND
Phil Roney, ND	Coryshuh, ND	Loren Swenson, ND
Delores Ronning, ND	Cecil Sigurdson, ND	Swenson Family, ND
Hilmer Ronning, Jr, ND	Skonseng Family, ND	Allen Tennison, ND
Esther Rufsvold, ND	Delores Smith, ND	Carol Thibeault, ND
Don Rust, ND	Karen AND Tomothy Smith, ND	Anthony Thilmony, ND
Leo Rust, ND	James Smykowski, ND	Lloyd Thilmony, ND
Lee Ruzicka, ND	Thomas SnortlaND, ND	Margaret Thilmony, ND
Allenruzicka, ND	John Soeby, ND	Phyllis Thompson, ND
John AND Tammy Sadek, ND	Mary Soergel, ND	Ann Thompson, ND
Mclaughlin Samuelson, ND	Lillian Solberg, ND	Allan Sr Thompson, ND
Opal Samuelson, ND	Inez Solseng, ND	Rick Thompson, ND
Jerry SaNDbeck, ND	Lee/Patricia Sommerland, ND	Charles Thoreson, ND
James SaNDen, ND	Tyler Sorby, ND	Debbie Thoreson, ND
RaNDy Schaley, ND	Paul Speicher, ND	Jamie Thorfinnson, ND
RaNDyschantz, ND	Earl Speicher, ND	David Tingley, ND
Lynel Schleicher, ND	Carol Stalheim, ND	Carrie AND Jeff TreNDa, ND
Michael Schmidt, ND	Edward Stalheim, ND	Arlyce TreNDa, ND
Erwin Schmidt, ND	Richard Starke, ND	Gary Triebold, ND
Judith Schmidt, ND	Rosemary Starkson-Conati, ND	Barbara Triebold, ND
Janice Schmidt, ND	Clarence Steffen, ND	Herbert Triebold, ND
Darrell Schroeder, ND	Mary Steffen, ND	Arlynn Troftgruben, ND
Fred Schroeder, ND	Todd Stein, ND	Charles Troftgruben, ND
Mary Kayschuh, ND	Stevens Andrew Family Trust, ND	Sharon Troftgruben, ND
Carl Schulz, ND	Stevens Family, ND	Scott - Brian Udby, ND
Kenneth Schulz, ND	Edward Stremick, ND	Leo Urlaub, ND
Norma Schulz, ND	Marlene Stremick, ND	Mary Urlaub, ND
David Schwab, ND	Myrna Stremick, ND	Richard Urness, ND
Lori Schwab, ND	John SuNDquist, ND	Loretta VaNDal, ND
Jolene Schwab, ND	John P.SuNDquist, ND	Barry Vculek, ND

PRIVATE LANDOWNERS (CONTINUED)

North Dakota (cont.)

Brian Vculek, ND
Bernard/Marlene Vculek, ND
Pearl Vig, ND
Dean Vig, ND
Ben Vig, ND
Emery Visto, ND
Erwin Visto, ND
Bruce Voelker, ND
Debby Vorachek, ND
Urness Vorachek, ND
Mildred Wangen, ND
Cathern Wangen, ND
Jerrywaswick, ND
Todd Whitman, ND
Robert Wiek, ND
Wayne Wiek, ND
Janet AND Stephen Wieser, ND
Janetwieser, ND
Lana/Lenore WiNDinglaND, ND
Marcus Windingland, ND
Steve Winter, ND
Kimberly/Shawn Wittenberg, ND
Jean/Robert Wittenberg, ND
Ralph Wittenberg, ND
Albert Wittenberg, ND
Anton Wixo, ND
Lynn C.Wolff, ND
Leonardwolfgam, ND
Wesleywolfgram, ND
Vaughn Zacharias, ND
Bruce Zacharias, ND
Julie Zellmer, ND
Marla Zidon, ND

Nebraska

Wilma Banahan, NE
Dale Beran, NE
Beran Family, NE
Cumro Family, NE
Graff Family, NE
Hennerberg Family, NE
Koehler Family, NE
Lohmeyer Family, NE
Saathoff Family, NE
Wilson Family, NE
Rhonda Frase, NE
Ervin HenNErberg, NE
Paul Kirby, NE
Ardan Leonard, NE
Donald Pingel, NE
Dean Roelfs, NE
Ron Sasse, NE
Robert Abraham, NE
Doris Achtemeier, NE
Fred Achtemeier, NE
Harlan And Lorna Adam, NE
Gary Aksamit, NE
Russell Albers, NE
Charles Albers, NE
JaNEt Albers, NE
Donald And Marcia Albers, NE
Charles And JaNEtalbers, NE
Floyd/Joyce Albrecht, NE
Angie And Larry Anderson, NE
Marilyn Antons, NE
Arlan Arens, NE
Jeffrey Arens, NE
Marcel Arens, NE
Dennis And Mary Arens, NE
Charlotte Arens, NE
Gerald And JaNEt Arens, NE
Kevin Arens, NE
Alice Augustin, NE
Barbara Bach, NE
Dale And Lucille Bach, NE
Hilda And Marvin Bakenhus, NE
Eldean And Norma Banahan, NE
Eldean Banahan, NE
Arthur And Mureen Bangert, NE
Ardith I Barber, NE
Charles Barber, NE

Nebraska(cont.)

Dorothy And George Barlean, NE
Steven Barlean, NE
Barbara And Tom Barlean, NE
Sam Barlean, NE
Bradleybarrows, NE
Barta Family Ltd Partnrshp, NE
Robert And Wilma Bartels, NE
Eugene/Celestine BartuNEk, NE
Agatha And Earl Baumert, NE
Clinton And DianNE Becker, NE
Dale And Denise Becker, NE
Roger Beckmann, NE
Alvin And Esther Beckmann, NE
Dean And Lana Bell, NE
Darren And Lisa Beller, NE
Bender Family, NE
Shirley And Vernon Beran, NE
Dorothy & Wallace Berchtold, NE
Harold Bergmeier, NE
Harold Bergquist, NE
Bermel Family, NE
Irene/Steve Blankenbaker, NE
Florence/Gilbert Bluhm, NE
Dale Bohac, NE
Bohac Family grantor Trust Of 2006, NE
Rachel/Robert Bohlken, NE
William Boller, NE
CaroliNE/George Bouc Jr, NE
Carol Bowen, NE
Douglas And Gail Brand, NE
Robert Brandl, NE
Leon Bruhn, NE
Lavern Bugbee, NE
JeaNEtte Bures, NE
Burdette Burkey, NE
Jerry And Susan Burkey, NE
Lori Burton, NE
Donald And Eileen Busboom, NE
Mark And Mona Buschelman, NE

PRIVATE LANDOWNERS (CONTINUED)

Nebraska (cont.)	Nebraska (cont.)	Nebraska (cont.)
Tom Jr And Bernice Cantrell, NE	Carroll&Margret Berspacher, NE	Ann And Eldon Gruntorad, NE
Linda Carlson, NE	Eberspacher Family, NE	Ann Gruntorad, NE
Clay/Janice Carskadon Jr, NE	Margareteberspacker, NE	Detta And Walter Gubbels, NE
David Cast, NE	Kevin Ebke, NE	Randy Gubbels, NE
Linda Catlin, NE	Robert Ehlers, NE	Ivan And Shirley Gubbels, NE
Lynton Cattau, NE	Leland/Robert Ehrishman, NE	Donna Gubbels, NE
John Cerny, NE	Mark Eiles, NE	Gaylord And Netta Gubbels, NE
Darlene/Frankie Charipar, NE	Janet/Kenneth Eisenmann, NE	Richard And Rita Gubbels, NE
Matthew/Melinda Christensen, NE	Janet Eisenmann, NE	Marla Gubbels, NE
John Cisler, NE	Chad Eisenmenger, NE	Gubbels Family Partnership, NE
Dawid Cisler, NE	Gayleen And Marvin Ernesti, NE	Russell Gubbles, NE
Larry And Reta Clark, NE	Shirley Fictum, NE	John Gubbles, NE
Ken Codr, NE	Cindy And Samuel Fischer, NE	Ed Guirk, NE
Joy Colwell, NE	DianNE And Lyle Fittje, NE	Mary Haberman, NE
John And Maureen Coufal, NE	John Fleming, NE	Dean And Delores Hahn, NE
Roger Cutshall, NE	Darwin And Gary Franzen, NE	Allen Hains, NE
D W & I L Cerveny,2003 Family Trust, NE	Maynard / Norma Freeouf, NE	John Hajek, NE
James Dallegge, NE	Lillian Freese, NE	August And Elaine Hake, NE
Gordon And Verna Dennis, NE	Leon And Mark Freese, NE	Ken Hamm, NE
Jan And Timothy Dewaard, NE	Alida Freese, NE	Matt Hansen, NE
Sandy And Stacy Dieckman, NE	Robert Freiberg, NE	Deborah / Robbie Harmeier, NE
Peter And Ruth Diedrichsen, NE	Richard Frew, NE	Dennis Hartman, NE
Carolyn Dietrich, NE	Jim Frew, NE	Deryl Hayek, NE
Scott Dietrich, NE	Richard Frew, NE	Esther Heckman, NE
Marjorie Dobesh, NE	Curt Friesen, NE	Dona And Jim Heeren, NE
Arthur Dobesh, NE	Paul Galter, NE	Nancy / Robert Heidemann, NE
Jarett/Kathleen Doernemann, NE	Norman Gerkensmeyer, NE	Lee Heidemann, NE
Kimberly And Rodney Doffin, NE	NadiNE Glanzer Anderson, NE	EugeNE Heitz, NE
Robert And Tina Dowling, NE	Lois And Lowell Glock, NE	Margaret Hejny, NE
Bill Dubs, NE	DianNE And Reginald Gnirk, NE	William Helgoth, NE
Marcella And Vernon Duis, NE	Gary Godbersen, NE	De Ann Heller, NE
Lynette/Wayne Duis, NE	James /Thomas Goetz, NE	Charles/Wm Hendrickson Rev. Trust, NE
Roy East, NE	Barbara Golding, NE	Dennis/Jeanette Hennerberg, NE
Jeffrey And Brian Ebberson, NE	Marleen Gordon, NE	Elizabeth/Ervin HenNErberg, NE
Fran And Michael Ebel, NE	Marvin Grindvold, NE	NEal Hentzen, NE
Joann Ebel, NE	Alan Gronemeyer, NE	Delores Hernandez, NE
KenNEth Ebel, NE	Alan Grotelueschen, NE	Mark Hesser, NE
Kim Eberspacher, NE	Mark Grotelueschen, NE	David Hicks, NE
	Eugene/Maxe Grotelueschen, NE	Robert And Susan Hilger, NE

PRIVATE LANDOWNERS (CONTINUED)

Nebraska (cont.)

Lillian And Lawrence Hillen, NE
Dorothy Hillen, NE
Clara And Gerald Hillmann, NE
Frances /Gerry Hochstein, NE
Bernice/Marilyn Hockman, NE
Gary/Kathrin Hoebelheinrich, NE
Hoebelheinrich Family, NE
Laverne And Sharon Hoeft, NE
Bonnie Hoesing, NE
Gloria Hoesing, NE
Alan Hoesing, NE
Gloria Hoesing, NE
Jack Hoffman, NE
Joe Hoffman, NE
Debra Hoggatt, NE
Merle And Mary Ann Holle, NE
John Holmbeck, NE
Allen Hormandl Sr, NE
Evelyn Hormandl, NE
Dale Hottovy, NE
Lumir Houser, NE
David Houser, NE
Mavis Houser, NE
Viola Hovis, NE
Marjorie Howe, NE
Ronald Hruska, NE
Rita And Timothy Hughes, NE
Jackie Hughes, NE
Karen Huls, NE
Nancy Hunt, NE
Richard Huss, NE
E. And W. Inselman, NE
Myron Inselman, NE
Edwin IrviNE, NE
ChristiNE Janda, NE
Mary And Terry Janke, NE
Byron And Patricia Janke, NE
Doug Jiskra, NE
Jannabelle Jochens, NE
Carolyn Johnson, NE
Allen And Letha Jones, NE
Robert Jones, NE

Nebraska (cont.)

Peggy/Richard Junck, NE
JaNEt Jura, NE
Sally /William JuraNEk, NE
Kayleen Kaiser, NE
Kelly Kaiser, NE
Diane Kapels, NE
Brad Karl, NE
Lonnie Karl, NE
Jimmy Karl, NE
Donald Kasik, NE
Mary And Robert Kasik, NE
Heather And Joseph Kasik, NE
Larry Kaspar, NE
Bernard And Arlene Kastl, NE
James And Joann Kaup, NE
CharmaiNE And Kerry Kearl, NE
Jacob And DarleNE Keiter, NE
Antony Keiter, NE
KenNEth Keiter, NE
James KenNEdy, NE
Walter KenNEdy Jr, NE
Larry Kessler, NE
Donald / Lois Kilchenmann, NE
Carole Kirby, NE
Dennis Kirby, NE
EugeNE Kisling, NE
JoanNE Kisling, NE
Mary Klecan, NE
Wilhelm Klein, NE
Klein Family Trust, NE
Clara Kleinschmit, NE
Kevin & Deb Kleinschmit, NE
Ralph Kleinschmit, NE
John Klosterman, NE
Julie Klosterman, NE
Gaylen Kluck, NE
Joanell And Ronald Klug, NE
Joan Klug, NE
Thomas Klug, NE
James Kmoch, NE
Thomas Kmoch, NE
Sharon Koepke, NE

Nebraska (cont.)

Irene Koepke, NE
Lester Koepke, NE
Sharon Koepke, NE
ShayleNE Kolbo, NE
Doris Koll, NE
Kenneth Koll, NE
Kenneth And Doriskoll, NE
Kelly Konken, NE
Delphin And Shirley Korinek, NE
Colleen Korte, NE
David Korte, NE
Donald Korth, NE
GeNEvieve Korth, NE
Leonard Korth, NE
Margaret Korth, NE
Timothy Korth, NE
Lawrence Korth, NE
Korth Family, NE
Korth Family Lp, NE
Joann And Ronald Kostal, NE
Jeffrey Kotas, NE
Rose Kouba, NE
Lisakrasser, NE
Arthur/Bernice Kreikemeier, NE
Gary Kreikemeier, NE
Lyle Krska, NE
BerdiNE Kruse, NE
Milton Kruse, NE
Jon Kruse, NE
Mary Ann Kruse, NE
Steven Kruse, NE
Thomas Kruse, NE
BerdiNE Kruse, NE
Joan Kruse Rogers, NE
Roger Kucera, NE
Terry Kudera, NE
Dorothy Kuhn, NE
Harold Kuhn, NE
Lloyd Lamb, NE
Rosalyn Lamb, NE
Ron Lammers, NE
Lammers Family, NE

PRIVATE LANDOWNERS (CONTINUED)

Nebraska (cont.)

John Langenberg, NE
Lola Langenberg, NE
Norris Langenberg, NE
Roger Langenberg, NE
William Langenberg, NE
Stanley Langenberg, NE
Jessie Langworthy, NE
Elise Lauer, NE
Ron Lauer, NE
Dwayne LieNEmann, NE
Herman Linkugel, NE
Wilma Linkugel, NE
Alice Liska, NE
Ladislav Liska, NE
Mary Livingston, NE
Debra And Mark Loecker, NE
Alan Loftis, NE
Frances Loftis, NE
Marcella Longnecker, NE
Gurney Lorenz, NE
Mary Lorenz, NE
Cindy Lottman, NE
John Louden, NE
KatheriNE Louden, NE
Sherry Luebbe, NE
Brent Luebbe, NE
Norman Luebbe, NE
Bruce Luebbe, NE
Anna B. Luebbe, NE
Linda Luedtke, NE
Louis Maas, NE
James Makovicka, NE
Jerome Makovicka, NE
Norma Maliha, NE
John Mangels, NE
Emma Mann, NE
Kevin Marotz, NE
Clarence Marschman, NE
Mary Marschman, NE
Marsh Family, NE
Caroline Martin, NE
John Martin, NE

Nebraska (cont.)

Lynn Martin, NE
D.Marxhausen, NE
Emil And Margaret Mastny, NE
Adeline Matulka Family, NE
Mike Mauch, NE
Winona Mcilnay, NE
Randymcmullin, NE
Gary Meinberg, NE
John Jr Meyer, NE
Betty Meyer, NE
Don Milander, NE
Wilma Milander, NE
Marilyn Millard, NE
Paul Millard, NE
Scott Millard, NE
Virginia Miller, NE
Doris MoNEypenny, NE
KenNEth MoNEypenny, NE
Margaret Montag, NE
Allen And DiaNE Moravec, NE
Mary Moravec, NE
Richard Moravec, NE
James Morbach, NE
Charles Morris, NE
Michael Moser, NE
Nancy Moser, NE
Alan Motycka, NE
Edward Motycka, NE
Weta Motycka, NE
Delmar Motycka, NE
Joan Mueller, NE
Merle Mueller, NE
Jerome Mueller, NE
Janice Mueller, NE
Allan And Janice Mueller, NE
Eloyde Mueller, NE
Maurice Mueller, NE
Lois Mueller, NE
Judith Muhle, NE
Leonard Muhle, NE
Gordon Muhle, NE
Jacqueline Muhle, NE

Nebraska (cont.)

Darin Nernd, NE
Tom Nerud, NE
Donald Nerud, NE
Mary Nerud, NE
Danny Nerud, NE
Joan Nerud, NE
Eileen Nerud, NE
Thomas Newman, NE
Elaine Nielsen, NE
Merlyn Nielsen, NE
Debra Niemann, NE
Susan Niemann, NE
David Niemeier, NE
Rosemary Niemeier, NE
Joseph /Rosalee Nordhues, NE
Joenordhues, NE
Rosaleenordhues, NE
Dean Novak, NE
Susan Novak, NE
Darrell Novak, NE
Nathan Oehlrich, NE
Arthur Olson, NE
Mary Olson, NE
John O'NEal, NE
Dale And Jean OnNEn, NE
Elmer And Ester Opfer, NE
Norma Orth, NE
Robert Orth, NE
Francis Osantowski, NE
ErNEst Osantowski, NE
Marie Ostry, NE
Doris Ourecky, NE
Lloyd Ourecky, NE
Lori Owens, NE
Randall Owens, NE
Frank And Nina Papik, NE
Allen Papik, NE
Twila Papik, NE
Sandra Passyka, NE
Neal Pavlish, NE
Alma Peckman, NE
Carl Peckman, NE

PRIVATE LANDOWNERS (CONTINUED)

Nebraska (cont.)

Jule Peters , NE
DiaNE Petersen, NE
RodNEy Petersen, NE
C Pieper, NE
Pamela Pieper, NE
Bertha And Donald Pingel, NE
Galen Pinkelman, NE
Kevin Pinkelman, NE
Alan Platt, NE
Fern Platt, NE
Bert Platt, NE
Loren Pogreba, NE
Brandon Pohlman, NE
Lonnie Pohlman, NE
Stephen Poots, NE
Marcus Potts, NE
Michael Pracheil, NE
Dean Pretzer, NE
Julie Prochaska, NE
Ronald Prochaska, NE
Marilyn Prochaska, NE
Dennis Puls, NE
Ramona Puls, NE
JaNEt Raville, NE
DwayNE Rech, NE
Sheri Rech, NE
Thomas L.Reents, NE
Dorothy Rees, NE
John Rees, NE
Tim Rees, NE
Mary Reetz, NE
Wayne Reetz, NE
Nicholas Reisinger, NE
Rebecca Reisinger, NE
Carolyn And Eugene Rejda, NE
Lori Rempel, NE
Roger Rempel, NE
Suzanne Remter, NE
Deborah Richter, NE
Donald Richters, NE
Patricia Rickard, NE
Verlin Rickard, NE

Nebraska (cont.)

KenNEth Ripa, NE
William Ripa, NE
Lloyd Rippe, NE
James Roberts, NE
Brenda Roberts, NE
Paul Roberts, NE
Bradley Roberts, NE
Lois Roberts, NE
Raymond Roberts, NE
Dale Rocker, NE
Sandra Rocker, NE
Dean Roelfs, NE
KenNEth Roth, NE
Vada Roth, NE
Milton Roth, NE
Wilma Roth, NE
Eleanor Roth, NE
Russell Roth, NE
Brenda Roth Family, NE
Gerald Rupprecht, NE
Norman Rupprecht, NE
MarleNE Rutledge, NE
JaNE Rutt, NE
Helen Saathoff, NE
Becky Saathoff, NE
Randall Saathoff, NE
Galen Sabata, NE
Tom Same, NE
Barbara Sampson, NE
Sam Sampson, NE
Jeannine Sanders, NE
Martha Sasse, NE
Darrell And Sondra Sasse, NE
Leroy And Mary Sasse, NE
Sasse Family, NE
Donald Schaecher, NE
Alice Schaefer, NE
Roger Schaefer, NE
Doris Scheer, NE
Thomas Scheer, NE
Dallas Schellenberg, NE
Marcella Schellenberg, NE

Nebraska (cont.)

Leona Schindler, NE
Mary Ann Schlichting, NE
Robert Schmid, NE
Viola Schmid, NE
James Schmid, NE
Madonna Schmidt, NE
Darold Schmidt, NE
Lillian Schmidt, NE
Nancy Schmidt, NE
Russell Schmidt, NE
Marjorie Schmidt, NE
Robert Schmidt, NE
Schmidt Family, NE
Debra Schramm, NE
Gary Schramm, NE
Shelley Schreiber, NE
Arthur Schreiber, Iii, NE
Lindaschrock, NE
Shirley /Dornelius Schroeder, NE
Beverly Schroeder, NE
William Schroeder, NE
Dennis Schroeder, NE
Donovan Schulte, NE
Chrles J. Schulte, NE
Marvin Schultis, NE
WayNE Schultz, NE
Brian Schulz, NE
Lyndsy Schulz, NE
Beth Schulz, NE
Mary Schwab, NE
William Schwab, Sr, NE
Randy Schwang, NE
Nancy Schwanke, NE
Schweitzer Family, NE
Carol Sell, NE
NEal Sell, NE
Timothy Sell, NE
Evelyn Shalander, NE
Donald Shutts, NE
Mary Shutts, NE
Susan Siefken, NE
Delores Slepicka, NE

PRIVATE LANDOWNERS (CONTINUED)

Nebraska (cont.)

Lambert Slepicka, NE
Dennis Sloup, NE
Sloup Family, NE
David Smisek, NE
Gail Smisek, NE
FaunNEil Smith, NE
Karen Smith, NE
Roy Smith, NE
Lois Sohl, NE
Norbert Sohl, NE
Russsouchek, NE
Keith Spanyers, NE
James Stara, NE
Betty And KenNEth Stara, NE
Dan Stauffer, NE
Elainstecker, NE
JeaNEtte Stehlik, NE
Leonard Stehlik, NE
Helen Stehlik, NE
Lloyd /Margaret Stevenson, NE
Thomas Stibal, NE
Holly Stoltenberg, NE
Debra Strate, NE
Merwyn Strate, NE
Lori Strouf, NE
Lynn Strouf, NE
Richard Struebing, NE
Vera Struebing, NE
Allison Struebing Trust, NE
Daniel Sudbeck, NE
Lisa Sudbeck, NE
Rogersudbeck, NE
Sudbeck Family, NE
Bessie Svajgr, NE
Ed Svajgr, NE
Eldon Taake, NE
Judy Taake, NE
Jean Tachovsky, NE
Lester Tachovsky, NE
Joan F.Tanderud, NE
Joan Tanderup, NE
Wayne Tanderup, NE

Nebraska (cont.)

Allen Tennison, NE
George Jr Thelen, NE
John Thelen, NE
Danielthoena, NE
Marcus ThoeNE, NE
Phyllis ThoeNE, NE
Arlyce ThoeNE, NE
Jerome ThoeNE, NE
Paul ThoeNE, NE
Tammy ThoeNE, NE
Donna Thomas, NE
Harold Thorell, NE
Vera Thorell, NE
Daniel Timms, NE
Russell Tooker, NE
Phyllis Tooker, NE
Kyletowle, NE
Roger Trudell, NE
Douglas Tunink, NE
Roger Tunink, NE
AdeliNE Turek, NE
Evelyn Tyser, NE
Leonard Tyser, NE
Cindy Urban, NE
Dean Urban, NE
Barbara Vales, NE
John Vales, NE
Linda Vandenberg, NE
Chris Vandenberg, NE
Leroy Vanicek, NE
Milo Vanis, NE
John And Mildred Vaught, NE
Pamela Vavrina, NE
Reynold Vering, NE
Ann Vobril, NE
Alfred Voelker, NE
Ella Voelker, NE
Melvon Vollbrecht, NE
Allan Vyhnalek, NE
Melinda Vyhnalek, NE
Scott Vyhnalek, NE
Steven Vyhnalek, NE

Nebraska (cont.)

Fredrick Wachal, NE
Colleen And Richard Wachal, NE
Gary Wachal, NE
Jeffrey Wachal, NE
Anthony Walz, NE
Bette Walz, NE
CurtiswaNEk, NE
Phil Weber, NE
Phil F.Weber, NE
Ronald Weers, NE
Mark Weers, NE
Rachelle Weers, NE
Lyle Wegele, NE
Sherrill Wegele, NE
Cynthia Weichel, NE
Lonnie Weichel, NE
Frank Weiher, NE
Linda Weiher, NE
Alvin Wellman, NE
Elizabeth Wellman, NE
Randy Wendt, NE
Tamara Wendt, NE
Joyce Wendt, NE
Lavern Wendt, NE
Mildred Wendt, NE
Wendt Family, NE
JaNE Wenz, NE
William Wenz, NE
Weyer Family, NE
Vicki Wilke, NE
Lisa Wilke, NE
Bill Willers, NE
Miriam Willers, NE
Penny Williams, NE
Brian Wolesensky, NE
Daniel Wolfe, NE
Patricia Wood, NE
Mary Wright, NE
KristiNE Wright, NE
Richard Wright, NE
David Wurdeman, NE
Lawrence/Larian Wurm, NE

PRIVATE LANDOWNERS (CONTINUED)

Nebraska (cont.)

Lloyd Young, NE
Catherine/Ronald Zarybnicky, NE
Richard/Tammy Zarybnicky, NE
Eleanor Zarybnicky, NE
John / Patricia Zarybnicky, NE
Lawrence And Mary Zavadil, NE
Zavadil Family, NE
Larry Zimmer, NE
Carol Zimmer, NE
GeraldiNE Zimmer, NE
Larry Zimmer, NE
Zimmerman Family, NE
Jon Zulauf, NE
Cheryl Zulauf, NE

New Jersey

Richard Stewart, NJ
Janice Tomlinson, NJ
Thomas Tomlinson, NJ

New Mexico

Arlys And James Frybarger, NM
Lavelle Ashley, NM

Nevada

Donald Docter, NV
Timothy Mortensen, NV
James Jimmerson, NV
Margaret Thomason, NV

New York

Allen Retzlaff, NY

Ohio

Jean Burger, OH

Oklahoma

Lois Ablin, OK
Arthur Anderson, OK
Matt Ball, OK
John And Karen Bode, OK
Ginger K.Glidewell, OK
Janell Harman, OK
Leo And Norma Hunt, OK
Duane Kleppe, OK
Loleta Kleppe, OK
Marla Knecht, OK

Nebraska (cont.)

Martin Knecht, OK
Carolyn Lodhia, OK
Sue Mcwhorter, OK
Renee Prince, OK
Joseph Robertson, OK
Sidney Spore, OK
Ken Staley, OK
Warren E.Taylor, OK
Alta Adams, OK
Cheryl Bandy, OK
Jerry Bean, OK
Beulah Behrens, OK
Sandra Blakley, OK
Lillie Bowman, OK
Jerry Boyer, OK
Robert Boyer, OK
Diane Browning, OK
Bobby Bruner, OK
Patricia Burritt, OK
Sam Case, OK
Barbara Cavett, OK
Rick Chester, OK
Bobby Clary, OK
Berniece CoOK, OK
Betty Dennet, OK
Nitaya Driskel, OK
Mary Eaton, OK
W. D. Eggers, OK
Mary Ellis, OK
Emmett Ellis, OK
Harvey Ely, OK
Jean Evans, OK
Adams Family, OK
Ailey Family, OK
Alderson Family, OK
Alexander Family, OK
Anderson Family, OK
Atkinson Family, OK
Blankinship Family, OK
Boyer Family, OK
Buntt Family, OK

Nebraska (cont.)

Christy Family, OK
Cline Family, OK
CoOK Family, OK
Cullers Family, OK
Dean Family, OK
Diehm Family, OK
Dilley Family, OK
Dormire Family, OK
Ethridge Family, OK
Fanning Family, OK
Fisher Family, OK
Fitch Family, OK
Frank Family, OK
French Family, OK
Garvie Family, OK
Gooch Family, OK
Goondo Family, OK
Grassman Family, OK
Greer Family, OK
Griffith Family, OK
Harman Family, OK
Harper Family, OK
Harting Family, OK
Hensley Family, OK
Hillier Family, OK
Horinek Family, OK
Irwin Family, OK
Jueschke Family, OK
Kelle Family, OK
Liston Family, OK
Lovell Family, OK
Marino Family, OK
Martin Family, OK
Matheson Family, OK
Mattox Family, OK
Mccroskey Family, OK
Mckinnis Family, OK
Mcpeak Family, OK
Mertz Family, OK
Mitchell Family, OK
Olbert Family, OK

PRIVATE LANDOWNERS (CONTINUED)

Oklahoma (cont.)

Orr Family, OK
Otto Family, OK
Payne Family, OK
Puls Family, OK
Reinhardt Family, OK
Roberson Family, OK
Roby Family, OK
Rocbertson Family, OK
Roe Family, OK
Rogers Family, OK
Rosiere Family, OK
Ross Family, OK
Schwanke Family, OK
Scott Family, OK
Sebor Family, OK
Sewell Family, OK
Sexton Family, OK
Sharp Family, OK
Sheik Family, OK
Shick Family, OK
Shock Family, OK
Short Family, OK
Simon Family, OK
Simons Family, OK
Spore Family, OK
Steichen Family, OK
Stiles Family, OK
Stout Family, OK
Talbert Family, OK
Thompson Family, OK
Tubbs Family, OK
Vap Family, OK
Vassar Family, OK
Vickery Family, OK
Voegele Family, OK
Warner Family, OK
Wilkerson Family, OK
Williams Family, OK
Wilson Family, OK
Yaunt Family, OK
John Flournoy, OK
Bill Foote, OK

Oklahoma (cont.)

Carl Frank, OK
Jd Frank, OK
Loyal Frank, OK
Michael Frank, OK
Roland Frank, OK
Donald Fultz, OK
Gregg Glass, OK
Delbert Grassman, OK
William Greenshields, OK
Jack Harney, OK
Sam Harris, OK
Michael Hart, OK
Scott Harting, OK
Rocky Henderson, OK
David Hesser, OK
Ival Hesser, OK
Jocille Hoffman, OK
Sharon Holman, OK
Edith Hunt, OK
Rose Jones, OK
Alberta Kahle, OK
Jack Kelly, OK
Robert Kendrick, OK
David Kerr, OK
Kenneth Klinger, OK
Barry Lane, OK
Jack Lane, OK
John Leven, OK
H A Linn, OK
John Linn, OK
Patty Luter, OK
Carolyn Mann, OK
Danube Mc Farlin, OK
David Mcclure, OK
Robert Mcclure, OK
Robert Mcclure Jr, OK
Danube Mcfarlin, OK
Brian Mcneil, OK
Jeffrey Meyer, OK
Dorothy Meyers, OK
Lavera Middlebusher, OK
Dennis Mittasch, OK

Oklahoma (cont.)

Patricia Monsees, OK
Dorothy Moomey, OK
Pam Morris, OK
Pamela Nicholson, OK
Cathy Oden, OK
Harlan Overman, OK
Karen Overman, OK
Darrel Patton, OK
Byron Phipps, OK
Lola Pogue, OK
Nikki Puls, OK
Mickey Ratliff, OK
Michael Ritter, OK
William Roof, OK
Jess Ross, OK
Ada Rossander, OK
Mellige Rudkin, OK
Emma Sanders, OK
Gottfried Schmaltz, OK
Bruce Scott, OK
Scott Sewell, OK
John Shiflet, OK
Fern Smith, OK
Karla Smith, OK
Edgar Snyder, OK
Robert Snyder, OK
Claude Stafford, OK
Janice Stiles, OK
James Stone, OK
Richard Sullins, OK
Wayland Swinford, OK
Warren Taylor, OK
Jack Terry, OK
Victor Testerman, OK
Ronnie Thomason, OK
Taylor Utahna, OK
Bobby Ventris, OK
Charles Ventris, OK
Jeff Vitale, OK
Henry Voise, OK
Beth Walton, OK
Sue Walton, OK

PRIVATE LANDOWNERS (CONTINUED)

Oklahoma (cont.)

Oreta Warford, OK
Bob Warner, OK
Mildred Wheatley, OK
Doug Will, OK
Randy Will, OK
Lois Williams, OK
M H Williams, OK
Mark Wilson, OK

Oregon

Baird Family, OR
Susan Baker, OR
Lance And Lyle Dirksen, OR
Lundeen Family LP, OR
Norma Ruble, OR
Gerald Swendseid, OR
Blanche Westberg, OR
Orrin Westberg, OR

Rhode Island

Alan And Jane Humphrey, RI

South Carolina

Mustard Family, SC
Roselyn Runge, SC

South Dakota

Edna Wagner, SD
Jon Albrecht, SD
Raymond Anderson, SD
Allan And Janice Anderson, SD
Roger Anderson, SD
Kevin Anderson, SD
Blair And Lynette Arne, SD
Annabeth And Donald Arne, SD
Donald Arne, SD
Alan Aughenbaugh, SD
Richard Aughenbaugh, SD
John And Marlys Baird, SD
Lorna Baldwin, SD
Wilmer Banger, SD
Candie And Randall Beck, SD
Terry Beers, SD
Dennis Beers, SD
Joan And Leonard Berg, SD

South Dakota (cont.)

Eugene Berg, SD
Vivian Bethke, SD
Gene Bethke, SD
Charles And Holly Beving, SD
Lucille Blakely, SD
Gregory Bonn, SD
David Bornitz, SD
Donald And Mary Bowers, SD
Lucille Bowling, SD
Peter Bremmon, SD
Dorothy And Donald Brown, SD
Daniel And Debra Brown, SD
Bud Brucknec, SD
Jim Brutty, SD
Donald Brutty, SD
Lyle Buchanan, SD
Dale And Russel Buising, SD
Wilmer Bunger, SD
Michael Burger, SD
Bernetta &Richard Burghardt, SD
J J Burke, SD
James Bush, SD
William Calmus, SD
Stanley Capp, SD
Janice And Robert Carlson, SD
C Carson, SD
Lucille Carson, SD
Joyce Cheeseman, SD
Chronister Family, SD
Timothy Clarke, SD
Marlin Clendening, SD
Ricky Cole, SD
Kevin Congdon, SD
Debra And James Coughlin, SD
David Cwach, SD
Randy Dawson, SD
Dale And Jean Deboer, SD
Melea Dejean, SD
Lynne And Steve Dejong, SD
James And Jodi Dinan, SD
Mary Doorn, SD
Mary E. Doorn, SD

South Dakota (cont.)

Bertram Drake, SD
Dorothy And George Dylla, SD
Miles Dyran, SD
Linda Easton, SD
Robert Ehlers, SD
Leanne Eich, SD
Diana And Lawrence Eich, SD
Orville Ellwein, SD
Bruce Emery, SD
Kent Erickson, SD
Margaret /Elmer Erickson, SD
Elmererickson, SD
Hugh Evans, SD
Cynthia And Dean Farley, SD
Robert Farrar, SD
Cherrlyn And Darrell Fast, SD
Wayne Fast, SD
Arlene And Dalin Fast, SD
Myrna And Robert Fast, SD
Robert Fast, SD
Fast Family, SD
Steve Fejtar, SD
James And Ramon Feller, SD
Donald Fisher, SD
James Fitzgerald, SD
Donald Fluth, SD
Delmar Foiles, SD
Hazel Foiles, SD
Delmar And Hazelfoiles, SD
Robert Foley, SD
Donald Foley, SD
Wayne Foote, SD
Doug Fosheim, SD
Terry Frick, SD
Frick Family LP, SD
Christopher Gederos, SD
Norma Glanzer, SD
Chad And Keith Glanzer, SD
Elaine And Jerauld Glanzer, SD
Chauntel & Timothy Glanzer, SD
Claude Glanzer, SD
Jeffrey Glanzer, SD

PRIVATE LANDOWNERS (CONTINUED)

South Dakota (cont.)	South Dakota (cont.)	South Dakota (cont.)
Fawn And Tim Glanzer, SD	Calvin And Glorius Heitzman, SD	Steve Huber, SD
Emauel And Mary Glanzer, SD	Wayne Helkenn, SD	Thomas Huber, SD
Glanzer Family, SD	Lavonne Helmer, SD	Roger Hurlbert, SD
Dennis Gosmire, SD	Lee W.Henld, SD	Harold Hurlbert, SD
Deetta And Edward Goss, SD	Janice Herman, SD	Sherray And Russel Hurlbert, SD
Wilmer L.Gran, SD	Reuben Hermann, SD	Carol And Ralph Hurlbert, SD
Todd Grandpre, SD	John And Jolene Hermoe, SD	Ralph Hyrlbert, SD
Sheri Gross, SD	Jolene And Laron Herr, SD	Janette Imsland, SD
Terry And Tonda Gross, SD	Idella And Walter Herrboldt, SD	Jean Janssen, SD
Kyle Gross, SD	Richard Herrboldt, SD	Ronald Jarrett, SD
Mark Gross, SD	Celesta And Marlin Herrboldt, SD	James Jenkins, SD
Joyce Gross, SD	Lee Herrboldt, SD	Greg Johnson, SD
Alan And Amy Grupe, SD	Idella Herrboldt, SD	Carl Johnson, SD
Roger Grupe, SD	David And Jill Hiebert, SD	Carl Wayne Johnson, SD
Duane S.Gustafson, SD	Lorrene And Norman Hiebert, SD	Maxine / Thomas Johnston, SD
Troy Hamilton, SD	Norman Hiebert, SD	Janann And Lonnie Jones, SD
Glenn And Donald Handke, SD	Dave Hindricks, SD	Boyd And Cherlye Jones, SD
Clarence And Ida Hannon, SD	Gary Hofer, SD	Deanjones, SD
Thomas Hanson, SD	Leroy Hofer, SD	William Kadoun, SD
Gordon And Johnny Hanson, SD	Kathryn And Mark Hofer, SD	Gerald Kaufmann, SD
James And Marian Hanson, SD	Priscilla Hofer, SD	Gregory /Machelle Keating, SD
Marlyss And Milton Hanssen, SD	Alvin And Mary Hofer, SD	Dona / Vincent Kennealley, SD
Jim Hanssen, SD	Robert Hofer, SD	J.V.Kennealley, SD
Jay Harmelink, SD	Glendon And Jayne Hofer, SD	Sherrie Kersting, SD
Larry Harry, SD	Darrell Hofer, SD	Darian Kilker, SD
Francis And Alma Hass, SD	Carlos Hofer, SD	Phyllis Kirschenman, SD
Robert Hastings, SD	Delwin And Pamela Hofer, SD	Ronald Kirschenman, SD
Hastings Family, SD	Derick Hofer, SD	Betty Kirschenman, SD
Willis Hauger, SD	John Hofer, SD	Leroy Kirschenman, SD
Michael Hausvik, SD	Janice Hofer, SD	Darwin Kirschenman, SD
Mary Hayenga, SD	Willard And Sarah Hofer, SD	Delores Klimisch, SD
William Haywood, SD	Mary Hofer, SD	James Klimisch, SD
Patricia And William Hearnen, SD	Orville Hofer, SD	Roger Klimisch, SD
Larry And Marlene Hearnen, SD	Joe Hofer, SD	Jim Klimisct, SD
Galen Heckenlaible, SD	Delsin/Pamhofer, SD	Jean/Kenneth Klinkhammer, SD
Daryl / Janet Heckenlaible, SD	Jerauld And Shirley Hoffman, SD	Dewayne / Lavina Klunder, SD
Reuben Heckenlaible, SD	Kevin Hollen, SD	Brian Knittel, SD
Loarine Heckenlaible, SD	Gayle And Steven Horter, SD	Phyllis Knittel, SD
Ella And Elsie Hein, SD	Greg Hough, SD	Arlo Koerner, SD
Dave Heinrichs, SD	David Huber, SD	Marilyn Korkow, SD
Debra Heitzman, SD	Herbert Huber, SD	Jerry Korkow, SD

PRIVATE LANDOWNERS (CONTINUED)

South Dakota (cont.)

Kathryn Kothe, SD
Laverne Kothe, SD
Aleta Kraft, SD
James Kroll, SD
Richard Kunkel, SD
La Mee Family Trust, SD
Steven Labay, SD
William Lamee, SD
David Lamee, SD
Erna Lamee, SD
Thomas Landreth, SD
Lucas Landreth, SD
Thomas Landreth, SD
Elaine Lane, SD
Harry Lane, SD
James Lane, SD
Jana Lane, SD
George Leitheiser, SD
Janette / Roger Leitheiser, SD
Doug Leschison, SD
Larry Lewis, SD
Lee Lewis, SD
Glenn Lingen, SD
James List, SD
Sharon List, SD
Ryan Loecker, SD
Alan Lohr, SD
Lorraine Tusha Trust, SD
Glen Lubbers, SD
Delores Luze, SD
Madsen Family, SD
Dorn Malpert, SD
Doug Marquardt, SD
Jason Marquardt, SD
Lucille And Ralph Marquardt, SD
Lyn May, SD
Floyd Mcelroy, SD
Michael Mcmenamy, SD
Bruce Merkel, SD
Pamela Merkel, SD
Dennis Michael, SD
Paul Michels, SD

South Dakota (cont.)

Denene Miles, SD
Donald Miles Jr, SD
Edward Miller, SD
Clark Moeckly, SD
Kent Moeckly, SD
Wayne Moore, SD
Denis Moschell, SD
Virginia Moschell, SD
Albert Mueller, SD
John Mueller, SD
Edward And Helen Munkvold, SD
Marsha Murphy, SD
Patrick Murphy, SD
Evelyn Nelson, SD
Evelyn Nelson, SD
Marlene Nelson, SD
Michael Nelson, SD
J. Neu, SD
Harlin Neuharth, SD
Dale Neuharth, SD
Alice Neuharth, SD
Steve Nielson, SD
Luther Nielson, SD
Norbert N. Muller Trust, SD
Karen North, SD
Rumie Nusz, SD
Gerald Nusz, SD
Gary Nutter, SD
D.W.Ochachek, SD
Daniel Olinger, SD
Timothy Olson, SD
James Olson, SD
Neil Olson, SD
David Olson, SD
Olson Family, SD
Mary Opsahl, SD
Belinda Panek, SD
Norman Papendick, SD
Robert Patrick, SD
Marina Payne, SD
Darwin Peckham, SD
Marsha Peckham, SD

South Dakota (cont.)

Jennifer/ Jonathan Penner, SD
Abe /Clarabel Penner, SD
John Pennes, SD
David Pigors, SD
Jerry Poeschl, SD
Todd Pollman, SD
Carma Popp, SD
Chad Popp, SD
Eugene Prunty, SD
Lavina Pullman, SD
David Putman, SD
Weona And Dale Quist, SD
Jerald Raap, SD
Sherry Rabenburg, SD
Randy Reis, SD
Carrie Reis, SD
Anne Reisch, SD
Leerettig, SD
Paul Roby, SD
Gary Roby, SD
Kathleen Roby, SD
Robert Roby, SD
Roster Family, SD
Charles Rostyne, SD
Travis Rostyne, SD
Lora Lea And Verlyn Rye, SD
Clara Rye, SD
Larry Ryken, SD
Brian And Joyce Sanderson, SD
Ronald (Dcd) Sanderson, SD
Richard Sanderson, SD
Lynn Sanderson, SD
Ronald Schaeffer, SD
Cheryl Schaefle, SD
Eugene Schlagel, SD
Wayne Schlagel, SD
Mona Schlagel, SD
Karla Schlapkohl, SD
Lonny Schlim, SD
Eileen Schmidt, SD
Charlene Schmit, SD
Richard Schmit, SD

PRIVATE LANDOWNERS (CONTINUED)

South Dakota (cont.)

Edward Schmit, SD
Janet Schmit, SD
Judith Schmuck, SD
Kenneth Schmuck, SD
Viona Schnabel, SD
Michael Schock, SD
Schoenfelder Family, SD
Mike Schook, SD
Janette Schramm, SD
Mark Schramm, SD
Rodney Schramm, SD
Terrence Schramm, SD
Jeannette Schramm, SD
Dorothy Schrooten, SD
Vicki And Michael Schultz, SD
Loren Schultz, SD
Stewart Schultz, SD
Amos Schultz, SD
Geraldine Schultz, SD
Stanley Schulz, SD
Randall Schuring, SD
Carl Schwab, SD
Dorothy Schwab, SD
Lillian Schwab, SD
Arthur Sees, SD
Rosemary Sees, SD
James Sees, SD
Michael Sibson, SD
Susan Sibson, SD
Leo Sibson, SD
Mike And Suesibson, SD
Richard Sievert, SD
Dean Stabnow, SD
Betty And Sam Stahl, SD
Jacob Stahl, SD
Marvin Stahl, SD
Eli Stahl, SD
Debra Stahl, SD
Melvin Stahl, SD
Thomas Stahl, SD
Mary Stahl, SD
Jacob M.Stahl, SD

South Dakota (cont.)

Oren Stahl, SD
Sarah Stahl, SD
Joanne Steichen, SD
Kenneth Steichen, SD
Arthur Stip, SD
Milo Stip, SD
Allison Tank, SD
Renold Tank, SD
Allen Terveen, SD
Opal Terveen, SD
Ronnie Thompson, SD
Gene Tisher, SD
Bill Tisher, SD
Donald Tisher, SD
Danny Tople, SD
Dean Townsend, SD
Russell Townsend, SD
Doris /Norman Townsend, SD
Hollis And Karen Treeby, SD
Henrietta Truh, SD
Ava Tucker, SD
Donald Tucker, SD
Scott Tuschen, SD
Craig Tuschen, SD
Michele Tuschen, SD
Chritsa Tusha, SD
Justin Tusha, SD
Lorraine Tusha, SD
Marlin Tusha, SD
Donald Ulrich, SD
Marvalee Ulrich, SD
Darwin Unruh, SD
Unruh Family Trust, SD
Karavan Bockern, SD
Phyllis Vermeulen, SD
Anita Voss, SD
Richard Voss, SD
Jeff Voss, SD
Jon Voss, SD
Wade Family, SD
Luella Wagner, SD
Adelia Wagner, SD

South Dakota (cont.)

Carroll Wagner, SD
Galen Waldner, SD
Kim Waldner, SD
Bennie Waldner, SD
Julie Waldner, SD
Waldner Family, SD
Vera Walls, SD
William Walter, SD
Joe Walter, SD
Timothy Walter, SD
Linda And Ray Walter, SD
Amy Walter, SD
Alton Walz, SD
Cheryl Walz, SD
Gary Walz, SD
Gregory Ward, SD
Mike Weaver, SD
Floyd Weeldreyer, SD
Leona Weeldreyer, SD
Jesse West, SD
Sandy Wheeldryer, SD
Jo Ann And Larry Whirledge, SD
Marvin Whites, SD
Margery Whites, SD
Ronald Whites, SD
Jerry Wicks, SD
Delton Wiebe, SD
Robert And Stacey Wingen, SD
Evelyn Witham, SD
Charles Wollman, SD
Mary E.Wollman, SD
Lyle Wollmann, SD
Raymond Wormke, SD
Conrad And Erich Wutsch, SD
Elta J Zens, SD
Elta Zens, SD
Gary Zuehlke, SD

PRIVATE LANDOWNERS (CONTINUED)

Tennessee

Carole Gray, TN
Neilsanderson, TN
Sharleine Hall, TN
Ordean Oen, TN
Kenneth Uehling, TN
James Wilson, TN

Texas

Jeppesen Family, TX
Jones Family, TX
Vaughn Family, TX
Larry Hart, TX
Kurt Lindahl, TX
W G Mouser, TX
Neil Skach, TX
Adele Bakken, TX
Billy And Rebecca Bednar, TX
Swana & T. Brooks Wittgow, TX
Corbit Family, TX
Ronald Forman, TX
Hugo Herzberg, TX
Lisa Hinckley, TX
John Lorinc, TX
Patricia Lorinc, TX
Joseph Nash, TX
Brenda Oenbring, TX
Patrick Oenbring, TX

Virginia

Charles Gurtler, VA
Ralph Dannettell, VA
William Gellerman Jr, VA

Washington

Winney Family, WA
Geri Johnston, WA
Harold Schwortz, WA
Catherine Slankas, WA
Irvin Chemelir, WA
Rose Ann Daniel, WA
Leal Dorsey, WA
Douglas Eidsvig, WA
Sarah Eidsvig Jarheim, WA
Maureen Hamilton, WA

Washington (cont.)

Coni And Gary Hehn, WA
Barbara Kurtz, WA
Florence Lee, WA
Kathleen Loyet, Wa
Dale Myer, Wa
Papendick Living Trust, Wa
Pierson Rev. Living Trust, Wa
Olaf Skrogstad, Wa

Wisconsin

Mayer Family, WI
Miltmore Family, WI
Laura Machart, WI
Barbara Anderson, Wi
Margaret Bettendorf, WI
Bernice Brown, WI
William Decesare, WI
Glenn And Janice Gehring, WI
Glenn/Michelle Hofer Liv. Tr, Wi
Joanne Johnson, WI
Lovina And Mahlon Miller, WI
Lois Novicki Muhle, WI

Wyoming

Dwight Ostenson, WY

No State Available

Glennda Marsh-Letts,
Rutledge Childrens Trust,
Alice Dietrich,
Andrew Klug,
Barry Eberspacher,
Betty Griess,
Bryan Dietrich,
Bryce Grotelueschen,
Carmelita Depauw,
Cory Smisek,
Dan Kouma,
Daniel Arens,
Dave Clark,
Denise Keay,
Dennis Bowers,
Dennis Kostal,
Diane Thomas,

No State Available (cont.)

Donald Kostal,
Douglas Gruntorad,
Edward Osantowski,
Ellen Meyer,
Gary Miller,
George Rambour,
Glen Hillen,
Glennda Marsh-Letts,
Greg Roth,
Hilda Franzen,
James Nerud,
Jane Schnittker,
Janelle Marsh,
Jason Heithold,
Jeanice Vinduska,
Jeff Olson,
John Carmichael,
John Dietrich,
Kathleen Rees,
Larry Landreth,
Larry Muhle,
Lawrence Kasik,
Len Korza,
Leo Osantowski,
Linda Motycka,
Lynette Klug,
Margaret Reibold,
Mary Bridgman,
Mike Heimes,
Mike Koch,
Mike Settje,
Robert Schindler,
Robin Schweitzer,
Sarah Vyhnalek,
Scott Muhle,
Sharon Matejka,
Terri Logan,
Terry Hockbart,
Tony Vanis,
Vickie Palky,
Virginia Langenberg,

LIBRARIES

ILLINOIS

Case-Halstead Library, Carlyle, IL
Evans Public Library, Vandalia, IL
Greenville Public Library, Greenville, IL
Latzer Memorial Public Library, Highland, IL
Patoka Public Library, Patoka, IL
Wood River Public Library, Wood River, IL

KANSAS

Arkansas City Library, Arkansas City, KS
Clifton City Library, Clifton, KS
Derby Public Library, Derby, KS
Douglass Public Library, Douglass , KS
Hope Community Library, Hope, KS
Library District 1, Troy, KS
Marion City Library, Marion, KS
Marysville Public Library, Marysville, KS
Morrill Free Public Library, Hiawatha, KS
Oxford Public Library, Oxford, KS
Potwin Public Library, Potwin, KS
Seneca Free Library, Seneca, KS
Wakefield Public Library, Wakefield, KS
Washington Library, Washington, KS

MISSOURI

Carrollton Public Library, Carrollton, MO
Centralia Public Library, Centralia, MO
Dulany Memorial Library, Salisbury, MO
Hamilton Public Library, Hamilton, MO
Howard County Library, Fayette, MO
Library & Museum, Lathrop, MO
Little Dixie Regional Library, Moberly, MO
Livingston County Library, Chillicothe, MO
Mexico Audrain County Library, Mexico, MO
Powell Memorial Library, Troy, MO
Scenic Reg Library, Warrenton, MO
St Joseph Public Library, St. Joseph, MO
St Louis County Library, Florissant, MO
St. Charles City-County Library, Saint Peters, MO
Wellsville Public Library, Wellsville, MO

NORTH DAKOTA

Cavalier City Library, Cavalier, ND
Cavalier County Library, Langdon, ND
Enderlin Municipal Library, Enderlin, ND
Forman Public Library, Forman, ND
Grand Forks Library, Grand Forks, ND
Griggs County Library, Cooperstown, ND
Lakota City Library, Lakota, ND
Lamoure Public Library, Lamoure, ND
Mayville Library, Mayville, ND
Oakes Public Library, Oakes, ND
Park River Public Library, Park River, ND
Valley City Public Library, Valley City, ND
Walhalla Public Library, Walhalla, ND

NEBRASKA

Beatrice Public Library, Beatrice, NE
City of Wausa Library, Wausa, NE
Columbus Public Library, Columbus, NE
Fairbury Public Library, Fairbury, NE
Hartington Public Library, Hartington, NE
Hruska Memorial Library, David City, NE
Leigh Public Library, Leigh, NE
Liberty Gilbert City of Friend Library, Friend, NE
Pierce Carnegie Library, Pierce, NE
Randolph Public Library, Randolph, NE
Seward Public Library, Seward, NE
Stanton Public Library, Stanton, NE
Wayne Public Library, Wayne, NE

OKLAHOMA

Bristow Public Library, Bristow, OK
Cushing Public Library, Cushing, OK
Fairfax Public Library, Fairfax, OK
Pawnee Public Library, Pawnee, OK
Perry Carnegie Library, Perry, OK
Ponca City Library, Ponca City, OK

LIBRARIES (CONTINUED)

SOUTH DAKOTA

Alexander Mitchell Library, Aberdeen, SD
Alexandria Public Library, Alexandria, SD
Britton Public Library, Britton, SD
City of Yankton Library, Yankton, SD
De Smet Library, De Smet, SD
Emil M. Larson Public Library, Clark, SD
Freeman Public Library, Freeman, SD
Hanson/McCook Regional Library, Spencer, SD
Howard Public Library, Howard, SD
Huron Public Library, Huron, SD

MEDIA

ILLINOIS

Daily Herald, Arlington Heights, IL
Greenville Advocate, Greenville, IL
Highland Park News, Waukegan, IL
Leader-Union, Vandalia, IL
Marion Daily Republican, Marion, IL
The Record, Edwardsville, IL
WQAD-TV, Moline, IL

KANSAS

Courier Tribune, Seneca, KS
Derby Reporter, Wichita, KS
Derby Weekly Informer, Derby, KS
Eastern Cowley County Advocate, Burden, KS
KNDY, Marysville, KS
Marysville Advocate, Marysville, KS
The Traveler, Arkansas City, KS
Washington County News, Washington, KS

MISSOURI

Brunswick Brunswicker, Brunswick, MO
Caldwell County News, Hamilton, MO
Cameron Citizen-Observer, Cameron, MO
Carrollton Democrat, Carrollton, MO
Chillicothe Constitution-Tribune, Chillicothe, MO
Elsberry Democrat, Elsberry, MO
Fayette Newspapers, Fayette, MO
Glasgow Missourian, Glasgow, MO
KCHI, Chillicothe, MO
KFNS AM, St Louis, MO

MISSOURI (cont.)

KMFC, Centralia, MO
KMOX 1120, St. Louis, MO
KMRN-KKWK Regional Radio, Cameron, MO
KQ2, St. Joseph, MO
KSDK-TV, St. Louis, MO
KTRS, St. Louis, MO
KWRT-AM, Boonville, MO
KWWR, Mexico, MO
Lathrop Publishing/Rural Reporter, Lathrop, MO
Lincoln County Journal, Troy, MO
Mexico Ledger, Mexico, MO
Moberly Monitor-Index, Moberly, MO
Norborne Democrat-Leader, Norborne, MO
Salisbury Press-Spectator, Salisbury, MO
South County Times, St. Louis, MO
St. Charles Journal, St. Peters, MO
St. Charles Watchman Advocate, St. Charles, MO
St. Joseph News-Press, St. Joseph, MO

NORTH DAKOTA

American Ag Network, Fargo, ND
Cavalier Chronicle, Cavalier, ND
Cavalier County Republican, Langdon, ND
Enderlin Independent, Enderlin, ND
Grand Forks Herald, Grand Forks, ND
Grand Forks Herald Online, Grand Forks, ND
Griggs County Courier, Cooperstown, ND
KBMW-AM, Wahpeton, ND

MEDIA (CONTINUED)

North Dakota (cont.)

KCNN-AM, GRAND FORKS, ND
KDDR-AM, OAKES, ND
KEGK-FM, FARGO, ND
KFGO-AM, FARGO, ND
KFNW-AM, FARGO, ND
KJKJ-FM, GRAND FORKS, ND
KNDK 1080 AM, LANGDON, ND
KOVC-AM, VALLEY CITY, ND
KQLX FM 106.1 RADIO, LISBON, ND
KVLY-TV, FARGO, ND
KVRR-TV, FARGO, ND
KXPO-AM, GRAFTON, ND
Larimore Leader, Fargo, ND
Litchville Bulletin, Litchville, ND
Milnor Teller, Milnor, ND
Morning News, Fargo, ND
Northwood Gleaner, Northwood, ND
Oakes Times, Oakes, ND
Pembina New Era, Pembina, ND
Ransom County Gazette, Lisbon, ND
Richland County News-Monitor, Hankinson, ND
Steele County Press, Finley, ND
The Daily News, Wahpeton, ND
The Forum, Fargo, ND
The Forum Online, Fargo, ND
Tri-County Sun, Fordville, ND
Valley City Times-Record, Valley City, ND
Valley News & Views, Drayton, ND
Walhalla Mountaineer, Walhalla, ND
Walsh County Press, Park River, ND
Walsh County Record, Grafton, ND
WDAY-AM, FARGO, ND
WDAY-TV, FARGO, ND
WDAZ-TV, GRAND FORKS, ND
West Fargo Pioneer, West Fargo, ND

NATIVE AMERICAN GROUPS

Colorado

Clement Frost, Chairman, Southern Ute Indian Tribe, Co
Manuel Heart, Acting Chairman, Ute Mountain Tribe, Co
Carl Knight, Land Manager, Ute Mountain Tribe, Co

Kansas

Iowa Tribe Of Kansas And Nebraska, Ks

Michigan

D.K. Sprague, Chair, Gun Lake Potawatomi, Mi
Ed Pigeon, Gun Lake Potawatomi, Mi
Kenneth Meshigaud, Chair, Hannahville Indian Community Of Michigan, Mi
Earl Meshigaud, Cultural Director, Hannahville Indian Community Of Michigan, Mi
Laura Spurr, Chair, Huron Potawatomi Nation, Mi
David Jones, Environmental Director, Huron Potawatomi Nation, Mi
Mike Zimmerman, Acting Chairman, Pokagon Band Of Potawatomi Indians Of Michigan, Mi

Michigan (cont.)

Mark Parrish, THPO, Pokagon Band Of Potawatomi Indians Of Michigan, MI

Montana

Earl Old Person, Chairman, Blackfeet Tribe, MT
John Murray, THPO, Blackfeet Tribe, MT
John Houle, Chairman, Chippewa-Cree Business Committee, MT
Alvin Windy Boy Sr, CPO, Chippewa-Cree Indians, MT
John Morales, Jr., Chairman, Fort Peck Tribes, MT
Curley Youpee, THPO, Fort Peck Tribes, MT
Julia Doney, President, Gros Ventre and Assiniboine Tribe of Ft. Belknap, MT
John Allen, Councilman, Gros Ventre and Assiniboine Tribe of Ft. Belknap, MT
Drew Shanni Spang, President, Northern Cheyenne Tribal Council, MT
Conrad Fisher, THPO, Northern Cheyenne Tribe, MT

NATIVE AMERICAN GROUPS (CONTINUED)

Minnesota

Sheldon Peters Wolfchold, Lower Sioux Indian Community, MN

Pam Halverson, THPO, Lower Sioux Indian Community, MN

Melanie Benjamin, Mille Lacs Band of Ojibwe, MN

Natalie Weyans, THPO, Mille Lacs Band of Ojibwe, MN

Stanley R. Crooks, Chairman , Shakopee Mdewakanton Sioux, MN

Leonard Wabasha, Shakopee Mdewakanton Sioux, MN

Erma Vizenor, Chairwoman, White Earth Band of Minnesota Chippewa, MN

Tom McCauley, THPO, White Earth Band of Minnesota Chippewa, MN

North Dakota

Myra Pearson, Chairperson, Spirit Lake Tribe, ND

Ken Graywater, Sr., Spirit Lake Tribe, ND

Allen McKay, Spirit Lake Tribe, ND

Ron His Horse is Thunder, Chairman, Standing Rock Sioux Tribe, ND

Tim Mentz, THPO, Standing Rock Sioux Tribe, ND

Marcus Wells, Jr., Chairman, Three Affiliated Tribes, ND

Elgin Crow's Breast, THPO, Three Affiliated Tribes, ND

Ken W. Davis, Chairman, Turtle Mountain Band of Chippewa , ND

Brady Paul Grant, THPO, Turtle Mountain Band of Chippewa , ND

Nebraska

Roger Trudell, Chairman, Santee Sioux Tribe of Nebraska, NE

Wyatt Thomas, Santee Sioux Tribe of Nebraska, NE

Robert Campbell, Santee Sioux Tribe of Nebraska, NE

OKLAHOMA

Kenneth Blanchard, Governor, Absentee-Shawnee Tribe of Indians of OK, OK

Oklahoma (cont.)

Karen Kaniatobe, THPO, Absentee-Shawnee Tribe of Indians of OK, OK

Chad Smith, Chief, Cherokee Nation, OK

Dr. Richard Allen, THPO, Cherokee Nation, OK

Darryl Flyingman, Governor, Cheyenne-Arapaho Tribe of Oklahoma, OK

Gordon Yellowman, NAGPRA, Cheyenne-Arapaho Tribe of Oklahoma, OK

Bill Anoatubby, Governor, Chickasaw Nation of Oklahoma, OK

Eddie Postoak, Chickasaw Nation of Oklahoma, OK

Gingy Nail, THPO, Chickasaw Nation of Oklahoma, OK

John Barrett, Chairman, Citizen Potawatomi Nation, OK

Jon Boursaw , Citizen Potawatomi Nation, OK

Jeremy Finch, Citizen Potawatomi Nation, OK

Bruce Gonzales, President, Delaware Nation, OK

Tamara Francis, Delaware Nation, OK

Jeff Houser, Chairman, Fort Sill Apache Business Committee, OK

Leland Michael Darrow, Fort Sill Apache Business Committee, OK

Bryan Jones, Fort Sill Apache Business Committee, OK

E. Bernadette Huber, Chair, Iowa Tribe of Oklahoma, OK

Joyce Miller, THPO, Iowa Tribe of Oklahoma, OK

Tony Salazar, Chairman, Kickapoo Tribe of Oklahoma, OK

Kent Collier, NAGPRA, Kickapoo Tribe of Oklahoma, OK

Tribal Chairman, Miami Tribe of Oklahoma, OK

Julie Olds, Miami Tribe of Oklahoma, OK

A.D. Ellis, Chief, Muscogee Creek Nation, OK

Joyce A. Bear, THPO, Muscogee Creek Nation, OK

NATIVE AMERICAN GROUPS (CONTINUED)

Oklahoma (cont.)

Jim Gray, Chief, Osage Nation of Oklahoma , OK

David Conrad, Osage Nation of Oklahoma , OK

Dr. Andrea Hunter, Osage Nation of Oklahoma , OK

Ron Rice, President, Pawnee Nation of Oklahoma, OK

Daniel Jones, Chairman, Ponca Tribe of Indians of Oklahoma, OK

Kay Rhoads, Chief, Sac & Fox Nation of Oklahoma, OK

Sandra Massey, THPO, Sac & Fox Nation of Oklahoma, OK

Anthony Street, Chairman, Tonkawa Tribe, OK

Josh Waffle, Tonkawa Tribe, OK

Dallas Proctor, Chief, United Keetoowah Band of Cherokee Indians, OK

Stephen “Archie” Mouse, THPO, United Keetoowah Band of Cherokee Indians, OK

South Dakota

Joseph Brings Plenty, Chairman, Cheyenne River Sioux, SD

Albert LeBeau, THPO, Cheyenne River Sioux Tribe, SD

Josh Weston, President, Flandreau Santee Sioux Tribal Council, SD

Sam Allen, THPO, Flandreau Santee Sioux Tribe, SD

Michael Jandreau, Lower Bruhle Sioux Tribe, SD

Scott Jones, Lower Bruhle Sioux Tribe, SD

John Yellow Bird Steele, President, Oglala Sioux Tribe, SD

Edgar Bear Runner, THPO, Oglala Sioux Tribe, SD

Rodney Bordeaux, President, Rosebud Sioux Tribe, SD

Russell Eagle Bear, THPO, Rosebud Sioux Tribe, SD

Jim Whitted, THPO, Sisseton-Wahpeton Sioux , SD

Winfield Rondell, Jr., Sisseton-Wahpeton Oyate Sioux , SD

Michael Selvage Chair, Sisseton-Wahpeton Oyate Sioux , SD

South Dakota (cont.)

Winfield Rondell, Jr., Sisseton-Wahpeton Oyate Sioux , SD

Michael Selvage Chair, Sisseton-Wahpeton Oyate Sioux , SD

Norman Perko, Sisseton-Wahpeton Oyate Sioux , SD

Charlotte Almanza, Sisseton-Wahpeton Oyate Sioux , SD

Vine T. Marks, Sr., Sisseton-Wahpeton Oyate Sioux , SD

Dianne Desrosiers, Sisseton-Wahpeton Oyate Sioux , SD

Dennis Gill, Sr., Sisseton-Wahpeton Oyate Wahpekutz , SD

Darrell Drapeau, Councilman, Yankton Sioux, SD

Texas

Juan Garza, Kickapoo Traditional Tribe of Texas, TX

Mary Jane Salgado, Kickapoo Traditional Tribe of Texas, TX

Utah

Maxine Natchees, Chairperson, Northern Ute Tribe , UT

Betsy Chapoose, Northern Ute Tribe , UT

Wisconsin

Harold Frank, Chairperson, Forest County Potawatomi Community of Wisconsin Potawatomi Indians, WI

Mike Alloway, Sr., Forest County Potawatomi Community of Wisconsin Potawatomi Indians, WI

George Lewis, President, Ho-Chunk Nation of Wisconsin, WI

William Quackenbush, THPO, Ho-Chunk Nation of Wisconsin, WI

Larry Garvin, NAGPRA, Ho-Chunk Nation of Wisconsin, WI

Wyoming

Ivan D. Posey, Chairman, Eastern Shoshone Tribe, WY

Tribal Historic Preservation Officer, Eastern Shoshone Tribe, WY

Richard Brannan, Chairman, Northern Arapaho Tribe, WY

Jo Ann White, THPO, Northern Arapaho Tribe, WY