From: Zorba, Peter D. (HQ-RA000) [redacted]
Date: Wednesday, Oct 04, 2017, 4:13 PM
To: Jennings, Stephanie [redacted]
Cc: Jones, John <[redacted]>
Subject: Re: Question for NASA on Comment #066-18

Hi Stephie, please find the attached table 5-1 w updated NASA information as requested.
For clarification purposes:

- "Area Disturbed for Building Removal" and "Backfill for Building Removal" is "Not Applicable" because those values are assumed in the total area of disturbed soil removal, as a result of our buildings being primarily located within our soil remediation areas;
- Wasted Generated cubic yardage and number of truckloads for "Bedrock Removal and Groundwater Remediation" is based on NASA's historical waste management data from our AIG groundwater characterization work, combined with values extrapolated from one year of historical GETS operational information {AIG + (GETS x 13 wells x 20 yrs) = updated/estimated value}.

Hope this helps.
Thanks,
Pete

From: "Jennings, Stephanie" [redacted]
Date: Tuesday, October 3, 2017 at 1:28 PM
To: "Zorba, Peter D. (HQ-RA000)" [redacted]
Cc: "Jones, John" [redacted]
Subject: RE: Question for NASA on Comment #066-18

Thanks, Pete

From: Zorba, Peter D. (HQ-RA000) [redacted]
Sent: Tuesday, October 3, 2017 1:23 PM
To: Jennings, Stephanie [redacted]
Subject: Re: Question for NASA on Comment #066-18

Hi Stephie, I'm waiting on some final waste management data and then should be able to get you the requested updated info/table by end of the week.
Thanks,
Pete

From: "Jennings, Stephanie" <[redacted]
Date: Thursday, September 28, 2017 at 3:20 PM
To: "Zorba, Peter D. (HQ-RA000)" <[redacted]>, "Jones, John" <[redacted]>
Subject: FW: Question for NASA on Comment #066-18

Pete:

I was just sorting through emails and came across this email chain. In all that's going on right now, I am sure that it fell through the cracks. But we still do need you, if you would please to look at our Table
5-1(1) from our DEIS and let us know if NASA's information is correct. In your comments, I believe that you noted that your information in this table wasn't correct. Have a look at Kirk's email to me at the bottom of this chain.

Thanks,
Stephie

From: Zorba, Peter D. (HQ-RA000) [[redacted]]
Sent: Thursday, September 14, 2017 7:39 AM
To: Jennings, Stephanie <[redacted]>
Cc: Jones, John [redacted]>; John Wondolleck [redacted]; Owens, Kirk W. ([redacted]>
Subject: Re: Question for NASA on Comment #066-18

Thanks Stephanie, I'll look into this this morning.
Pete

Sent from my iPhone

On Sep 14, 2017, at 07:30, Jennings, Stephanie [redacted] wrote:

Pete:

Below is an email from our contractor regarding the information from NASA on our Table 5-1(1) from our DEIS. We are double checking things for our Comment/Response document and wanted to verify that NASA's information in this table is correct. Could you please have another look at this table and make sure that NASA's portion is correct?

Thanks,
Stephie

From: Owens, Kirk W. [redacted]
Sent: Wednesday, July 26, 2017 10:10 AM
To: Jennings, Stephanie [redacted]
Cc: Dimarzio, John A. [redacted]
Subject: FW: Question for NASA on Comment #066-18

Stephie – as discussed, below is a suggested email (w/ attachment) to request NASA to clarify/answer its comment.

On April 12, 2017, NASA submitted comments on DOE's Draft SSFL Area IV EIS. Comment #19 in the table of comments refers to page 5-4, Table 5-1, in the Draft EIS stating:

Under "Backfill for Building Removal," please confirm that the quantity is not included as part of the soil back fill. If so, please restate the "Not Provided" as appropriate. As currently written, it implies NASA was unwilling to share Information.

On July 8, 2017, NASA provided a redline update of its data in Table 5-1 (attached). That update left the status of three entries as "Not provided" (one each under Land disturbed, Resources used, and Waste generated). To assist us in responding to your comment and to improve the presentation of information in the table, can you provide information to replace the 'not provided' entries? What are the values for these entries, are they accounted for in other entries, or are they "none expected" or not applicable?

Thank you,
<DOE SSFL Area IV EIS Table 5-1[1].docx>

Table 5–1 Information for the DOE, NASA, and Boeing Remediation Activities at the Santa Susana Field Laboratory

Impacts Information	*Responsible Party*			*Totals*
	NASA [a]	*Boeing* [b]	*DOE* [c]	
Land disturbed (acres)				
– Area Disturbed for Soil Removal	144 to 245	55.3 [d]	32 to 130	**226 to 405**
– Area Disturbed for Building Removal	Not applicable	Not provided	8.4	**8.4**
Total	144 to 245	55.3	40 to 138	**235 to 414**
Employment (persons)				
– Onsite Employees	50 to 75	100	25 to 26 Building removal activities = 26 Soil excavation = 25 Groundwater treatment = <1 [e]	**175 to 201**
– Truck Drivers - Truck drivers for occasional deliveries or pickups are not included in long-term employment.	Assume 32 to 160 truck drivers when the high value is for a scenario where hazardous waste disposal facilities are a 2-day truck trip from SSFL.[f]	Assume 9 to 42 truck drivers when the high value is for a scenario where hazardous waste disposal facilities are a 2-day truck trip from SSFL.[f]	Assume up to 32 truck drivers during the first few years when 96 truck trips are split between DOE, NASA, and Boeing; thereafter a maximum of 95 truck drivers under a scenario where the hazardous waste disposal facilities are a 2-day truck trip from SSFL.[f]	**73 to 297** [g]
Total	82 to 123	116 to 132	57 to 121	**248 to 498**
Resources used				
– Backfill for Soil Excavation (cubic yards)	206,000 to 290,000	113,000	111,000 to 700,000	**426,000 to 1,100,000**
– Backfill for Building Removal (cubic yards)	Not applicable	Not provided	13,500	**13,500**
-Backfill for Bedrock Removal (cubic yards)	None expected	None expected	0 to 1,280	**0 to 1,280**
Total	206,000 to 290,000	113,000 [d]	125,000 to 715,000	**440,000 to 1,120,000**
Resources used				
– Water (gallons/day)	200,000	10,000 to 14,000	3,000 to 16,000	**213,000 to 230,000**
Waste generated (cubic yards) [h]				
– Soil Excavation	626,000 to 870,000	336,000	148,000 to 933,000	**1,090,000 to 2,140,000**
– Building Removal	66,100	Not provided	15,500	**81,600**
– Bedrock Removal and Groundwater Remediation	2,800	Not provided	10 to 1,730	**10 to 1,730**
Total	695,000 to 939,000	336,000	164,000 to 950,000	**1,170,000 to 2,220,000**

Impacts Information	*Responsible Party*			*Totals*
	NASA [a]	*Boeing* [b]	*DOE* [c]	
Truck trips				
– Soil Disposal	40,000 to 57,000	21,900	11,100 to 70,000	**73,000 to 149,000**
– Backfill, Equipment, and Supplies	13,100 to 19,100	7,370	8,390 to 46,900	**28,900 to 73,400**
– Building Demolition Debris	3,970	Not provided	1,500	**5,470**
– Bedrock Disposal and Other Groundwater Remediation Waste	60 to 1000	Not provided	20 to 370	**20 to 370**
Total	57,100 to 81,000	29,300	20,800 to 119,000	**107,000 to 228,000**

Boeing = The Boeing Company; NASA = National Aeronautics and Space Administration.

[a] Source: NASA 2015b.

[b] Source: Boeing 2015d.

[c] Source: Chapter 4 of this EIS.

[d] Boeing has identified six areas of potential soil borrow in the Southern Buffer Zone that could be used as sources of clean backfill for Boeing remediation activities. The areas total approximately 20 acres of undeveloped land (MWH 2015). The analyses in this EIS assume Boeing would obtain backfill from offsite sources.

[e] A small number of workers would be required to install groundwater wells and treatment systems that would each work for less than a year. Annual monitoring operations would also require a small number of workers that would each work for less than a year.

[f] For hazardous waste disposal facilities that are a 2-day trip from SSFL, trucks could leave each day for 3 days before some of the trucks would begin returning to SSFL for another load on the fourth day. All evaluated radioactive waste disposal facilities are assumed to be a 2-day truck trip from SSFL.

[g] The ranges of DOE, NASA, and Boeing truck drivers have been added together to obtain a conservative estimate of total truck drivers. It is unlikely that the maximum numbers of truck drivers would occur at the same time for DOE, NASA, and Boeing activities at SSFL.

[h] Volumes in this table are containerized waste volumes.

Notes:

– Sums presented in the table may differ from those calculated from table entries due to rounding.

– Values rounded to three significant figures.