

Paducah Citizens Advisory Board

Burial Grounds Subcommittee

- Fraser Johnstone, LATA Kentucky
- March 15, 2012



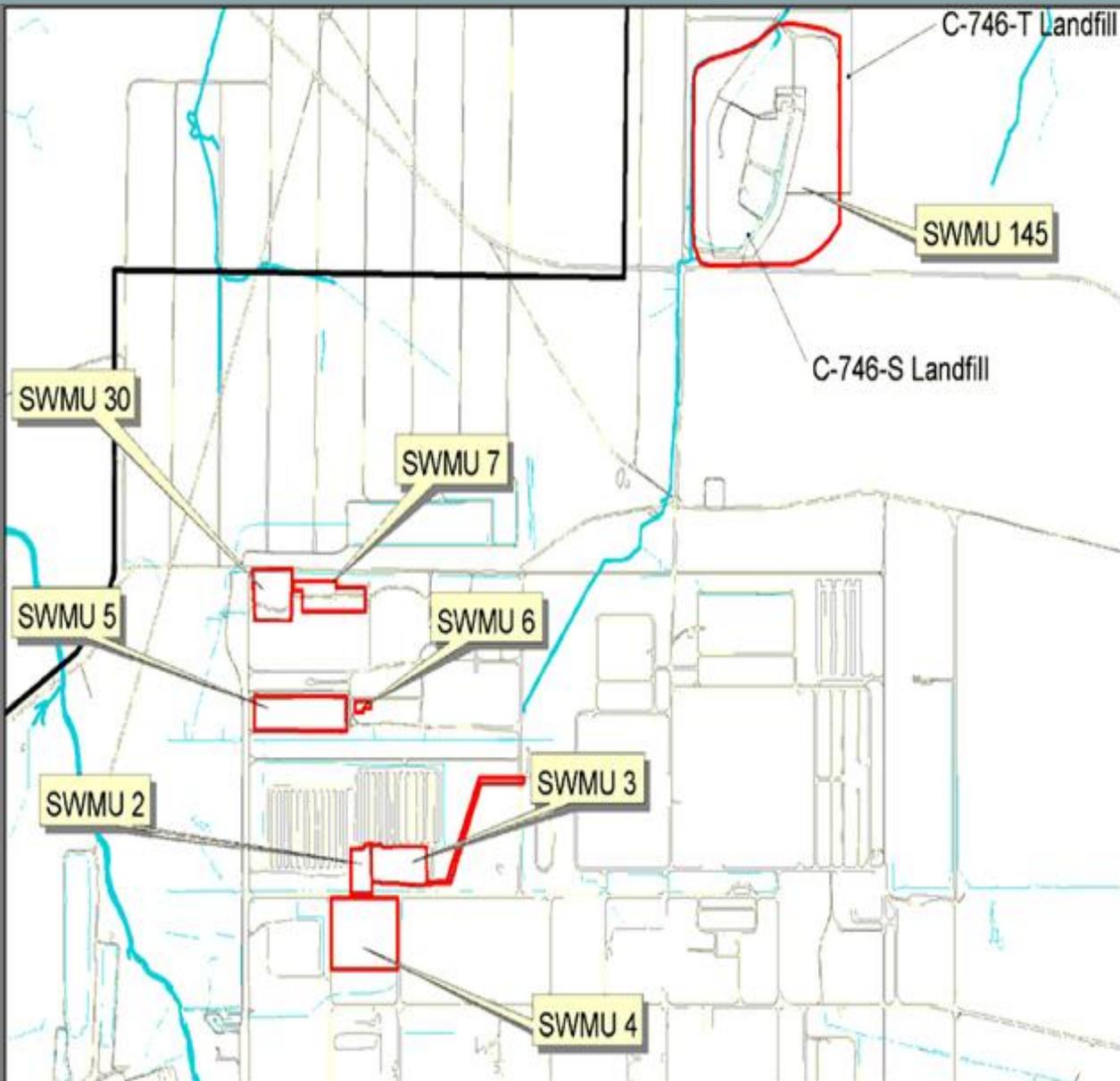
CITIZENS
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EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

Burial Grounds



The Burial Grounds Operable Unit consists of areas of contamination associated with burial areas and landfills concentrated in the northwest quadrant of the plant. Contents may include hazardous, PCB, and low-level radioactive waste.

- There are 10 burial areas within the Burial Grounds Operable Unit (BGOU)
- These areas typically have items buried less than 20 feet from the surface.

Burial Grounds

- Currently developing revised FSs for the BGOU
- Revisions required after regulatory non-concurrence on the initial Feasibility Study (FS) in Jan 2011.
- Non-concurrence coincided with initiation of an informal dispute process resolution under the FFA.

Burial Grounds

- Resolutions and impacts associated with the informal dispute process
 - 109 comments/issues were resolved on the FS in the informal dispute process
 - FS must include a broader range of remedial alternatives
 - The 10 BGOU SWMUs will be grouped into smaller, more manageable sub-units to facilitate the CERCLA process

Burial Grounds

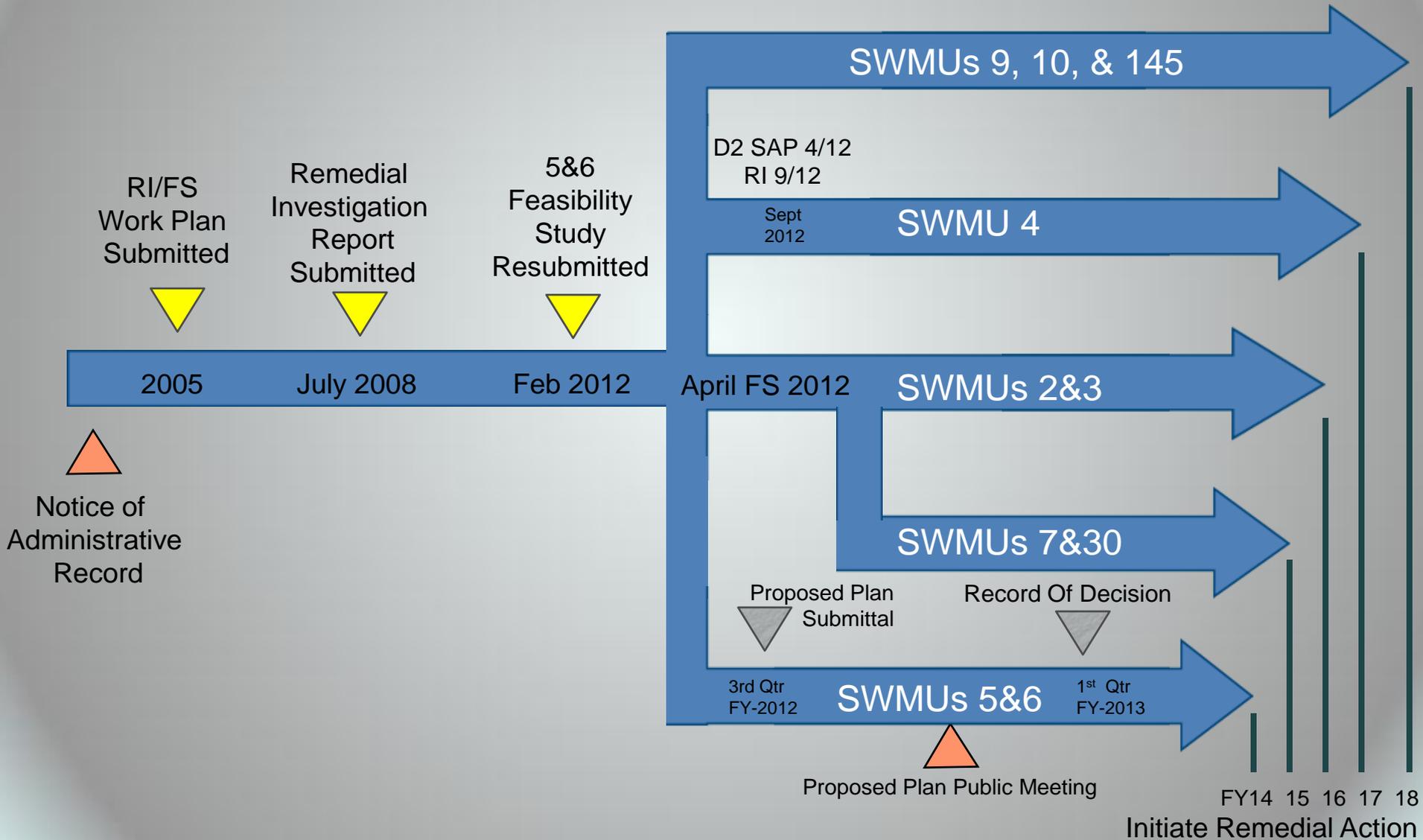
- The FFA parties were unable to resolve seven comments related to Principal Treat Waste (PTW) through the informal dispute process. The FFA contains provisions for a formal dispute process in the event issues can not be resolved under an informal process.
- On Sept. 27, 2011 EPA initiated the formal dispute process to resolve the PTW-related issues that could not be resolved during informal dispute process.
- Formal dispute resolved Jan. 30, 2012.

Burial Grounds

Resolutions and impacts associated with the formal dispute:

- Revise text to make affirmative statements about PTW
 - SWMU 2: TCE (and degradation product), PCBs, Uranium, Uranyl fluoride
 - SWMU 3: Uranium
 - SWMU 4: TCE
 - SWMU 7: TCE (and degradation products) in SWMU
- Perform additional RI at SWMU 4
- Established near-term (2012) Milestones
 - 4/29 – D1 FS for SWMU 2, 3, 7, and 30
 - 2/29 – D2/R1 FS for SWMU 5 an 6
 - 5/31 – D1 PP for SWMU 5 an 6
 - 10/30 – D1 ROD for SWMU 5 an 6
 - 9/30 – field start for SWMU 4 investigation

Burial Grounds



Burial Grounds

Preliminary Ranking of Alternatives for SWMU 5							
Evaluation Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 6A
	No Action	Limited Action	Soil Cover, LUCs, and Monitoring	18/6 Soil Cover, LUCs, and Monitoring	Subtitle D Cap, LUCs, and Monitoring	Excavation and Removal of All Waste Materials	Excavation and Removal of All Waste Materials (at Proposed On-site Disposal Unit)
Overall Protection of Human Health and the Environment	Does not meet the threshold criterion	Meets the threshold criterion	Meets the threshold criterion	Meets the threshold criterion	Meets the threshold criterion	Meets the threshold criterion	Meets the threshold criterion
Compliance with ARARs	No ARARs identified	Meets the threshold criterion	Meets the threshold criterion	Meets the threshold criterion	Meets the threshold criterion	Meets the threshold criterion	Meets the threshold criterion
Long-term Effectiveness and Permanence	Low (1)	Moderate (5)	Moderate (5)	Moderate (5)	Moderate to High (7)	High (9)	High (9)
Reduction of Toxicity, Mobility, or Volume through Treatment	Low (1)	Low (1)	Low (1)	Low (1)	Low (1)	Low (1)	Low (1)
Short-term Effectiveness	High (9)	High (9)	Moderate to High (7)	Moderate to High (7)	Moderate to High (7)	Moderate (5)	Moderate (5)
Implementability	High (9)	High (9)	High (9)	High (9)	Moderate to High (7)	Moderate to High (7)	Moderate to High (7)
Cost (Present Worth)*	High (9) \$0	Moderate to High (7) \$1,856,000	Moderate to High (7) \$4,330,000	Moderate to High (7) \$5,098,000	Moderate (5) \$7,854,000	Low (1) \$232,181,000	Low (1) \$68,722,000
Average Balancing Criteria Rating	5.8	6.2	5.8	5.8	5.4	4.6	4.6

* A high rating corresponds to a low project cost relative to the site evaluated.

Alternative Rating Guide:

Balancing criteria are scored from 1 (worst) to 9 (best) for each alternative. The qualitative and numerical ratings correspond as follows:

- 9 – High
- 7 – Moderate to High
- 5 – Moderate
- 3 – Low to Moderate
- 1 – Low

Burial Grounds

Preliminary Ranking of Alternatives for SWMU 6							
Evaluation Criteria	Alternative 1 No Action	Alternative 2 Limited Action	Alternative 3 Soil Cover, LUCs, and Monitoring	Alternative 4 18/6 Soil Cover, LUCs, and Monitoring	Alternative 5 Subtitle D Cap, LUCs, and Monitoring	Alternative 6 Excavation and Removal of All Waste Materials, and Monitoring	Alternative 6A Excavation and Removal of All Waste Materials, and Monitoring (at Proposed On-site Disposal)
Overall Protection of Human Health and the Environment	Does not meet the threshold criterion	Meets the threshold criterion	Meets the threshold criterion	Meets the threshold criterion	N/A	N/A	N/A
Compliance with ARARs	No ARARs identified	Meets the threshold criterion	Meets the threshold criterion	Meets the threshold criterion	N/A	N/A	N/A
Long-term Effectiveness and Permanence	Low (1)	Moderate (5)	Moderate (5)	Moderate (5)	N/A	N/A	N/A
Reduction of Toxicity, Mobility, or Volume through Treatment	Low (1)	Low (1)	Low (1)	Low (1)	N/A	N/A	N/A
Short-term effectiveness	High (9)	High (9)	Moderate to High (7)	Moderate to High (7)	N/A	N/A	N/A
Implementability	High (9)	High (9)	High (9)	High (9)	N/A	N/A	N/A
Cost (Present Worth)*	High (9) \$0	Moderate to High (7) \$1,699,000	Moderate (5) \$3,195,000	Moderate (5) \$3,275,000	N/A	N/A	N/A
Average Balancing Criteria Rating	5.8	6.2	5.4	5.4	N/A	N/A	N/A

* A high rating corresponds to a low project cost relative to the site evaluated.

N/A – Not Applicable. Alternative not retained for further analysis at the associated site due to reasons described in Section 3.

Alternative Rating Guide:

Balancing criteria are scored from 1 (worst) to 9 (best) for each alternative. The qualitative and numerical ratings correspond as follows:

- 9 – High
- 7 – Moderate to High
- 5 – Moderate
- 3 – Low to Moderate
- 1 – Low