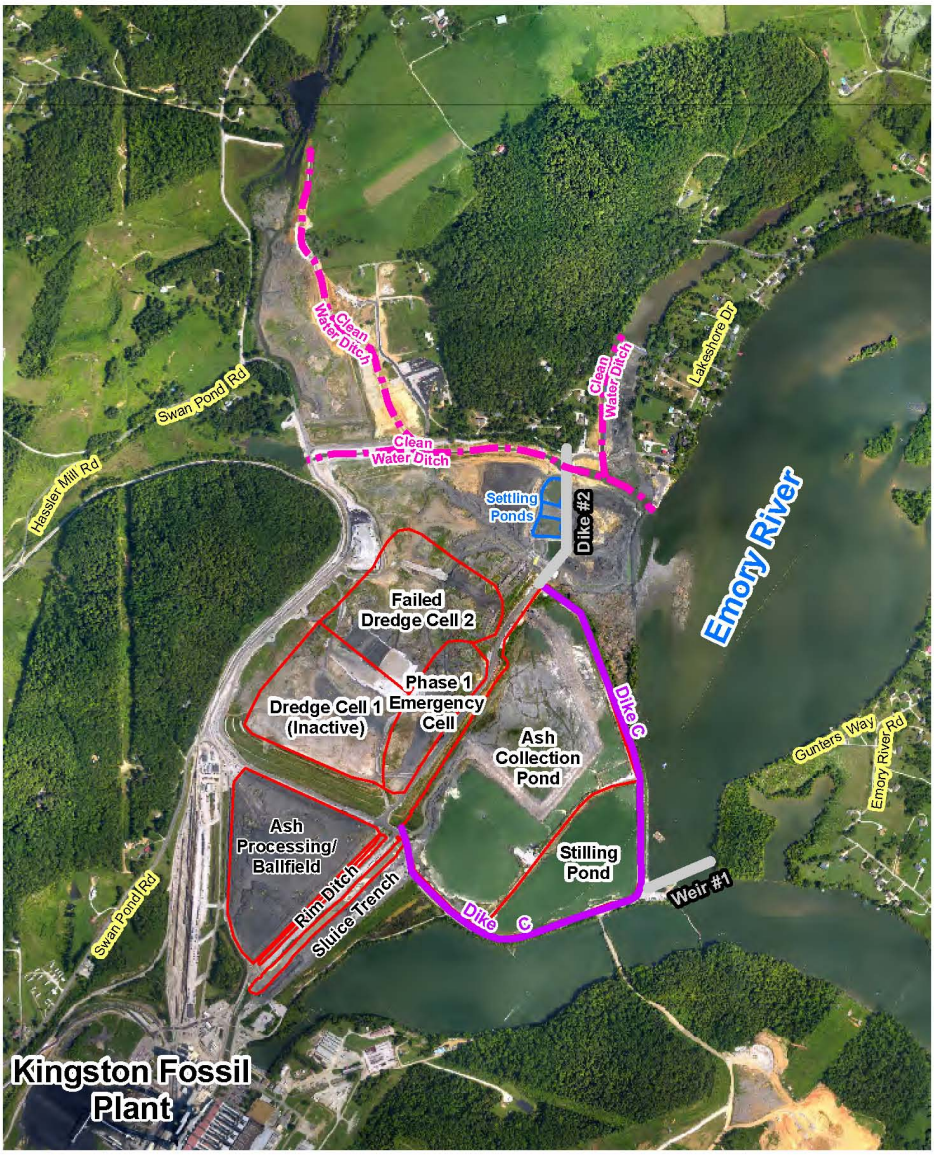
KINGSTON ASH RECOVERY PROJECT
WEEKLY REPORT
October 5 - 11, 2009

Aerial Image of Kingston Ash Slide August 14, 2009



N

0 500 1,000 1,500 2,000 Feet

Tennessee Valley Authority
OE&R - ER&S
Geographic Information & Engineering

Prepared by:	Issue (Date/Time)
Mary McDermott	10/12/2009 4:43:41 PM

KINGSTON ASH RECOVERY PROJECT
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HIGHLIGHTS

- There were no safety incidents for the week.
- Moved 33,000 cy of ash from east of Dike 2.
- Issued the RFP for the offsite utility restoration effort.
- Increased the effort in cleaning out the rim ditch/sluice trench/ash pond. Are evaluating options for removing fines from the system that are hard to handle.
- Removed about 51,000 cy of ash by dredging through October 7th.
- Suspended river dredging at 11:15 on October 8th due to ash deposition in the settling pond and the corresponding reduction in Free Water Volume in the pond. The NPDES permit has a requirement to maintain a water volume of 102 million in total in both the settling pond and the stilling pond.

SAFETY

Program Summary

- 11 site specific HSE orientations conducted for the week; 802 to date.
- 14 Safety Observation Reports submitted for the week; 366 to date; 323 of which have been closed.

Incidents

- No incidents for the week.

INFRASTRUCTURE/ASH MANAGEMENT

- Move 33,000 cy of ash from east of Dike 2 to west of Dike 2.
- Applied 4 acres of Flexterra for dust control.
- Performed Storm Water Pollution Prevention Plan inspections, maintained HAZWOPER controls, and applied water to roads for dust control.
- Continued working on the design for the revised Main Hazwoper Entrance and Exit Station on the South Portal of the project and plans for Winterization of Truck Wash Stations.
- TVA Supply Chain issued the Request for Proposals on Friday, October 09, 2009 for the Offsite Utility Restoration to replace the Harriman Utility Board and Kingston Utility Board water, gas, telecommunications and effluent lines destroyed by the ash spill.

ASH DREDGING & PROCESSING

- Dredging was suspended at 11:15 am on Thursday, October 8th, due to losing Free Water Volume (FWV) in the settling pond. FWV is a requirement of the NPDES permit and there was concern that the rapid deposition of ash in the settling pond from increased dredging production might compromise the requirement. The EPA On Scene Coordinator issued a determination on October 9th that addressed the permit requirement to maintain FWV in the settling pond. Based on the determination that the actions being taken by TVA to comply with the permit requirement and other environmental laws, applicable or relevant and appropriate requirements were being met and that dredging should resume simultaneously with the maximum efforts practicable to limit exceedance of FWV. TVA intends to resume dredging on Monday following extensive efforts over the weekend to improve ash recovery in the rim ditch and sluice trench.
- Through October 11th, the Sevenson hydraulic dredge volume is estimated at 488,111 cy and the total dredged from the river is 963,791 cy. (Note: Total dredged from the river has been adjusted to include all ongoing survey adjustments and all TransAsh and TVA reported hydraulic and mechanical dredging to date.)
- Dredging from the river was performed Monday through Thursday morning on a two-shift basis. On Thursday morning hydraulic river dredging was suspended due to recent survey results in the Ash Pond that indicated the permit limitations for Free Water Volume were being approached.
- The McKenzie 14" dredge operated 41.6 hours during the period. Bathymetric survey data for the

McKenzie has been processed through October 7th.
- The Kylee 16" dredge operated 61.5 hours during the period. Bathymetric survey data for the Kylee has been processed through October 6th.
- The 14" McKenzie, 16" Kylee, and 20" Little Rock were operated simultaneously Monday through Thursday apart from when there were mechanical issues.
- The Little Rock 20" dredge operated 54.9 hours during the week. Bathymetric survey data for the Little Rock has been processed through October 5th.
- It was determined that the TVA "Yellow Dredge" would be moved to the Ash Pond due to Free Water Volume concerns in the Ash Pond and Stilling Basin. CP began breaking down the Yellow Dredge to allow relocation the week of October 12th. It is expected the dredge will be operable by October 15th.
- Began polymer addition at the head of the Rim Ditch in an effort to settle out additional fine ash.
- Continued geotechnical analysis that would consider allowing hydraulic dredging from the Ash Pond into the Lateral Expansion Area.
- Began the process of procurement for a contractor that can separate fine ash from water pumped from the Ash Pond. This strategy would reduce the hydraulic loading of the Rim Ditch and prevent recirculation of fine ash back into the Ash Pond.
- Increased Ash Pond dredging to two shifts seven days per week on Thursday in an effort to increase Free Water Volume.
- Increased Sluice Trench dipping by extending CP's clamshell shift to 14 hours per day and shifting Sevenson equipment to the Sluice Trench.

ASH DISPOSITION

- Loaded and moved 6 unit trains this week. Were not able to load one day due to rain.
- Have loaded and transported 77 unit trains to date.
- Loaded and transported approximately 52,592 tons of ash this week, for a total of approximately 687,766 tons.
- Continued maintenance work in the rail yard which included maintenance of switches and replacing switch and regular rail ties.
- Continued evaluations on bids for installing two additional rail spurs to support railcar loading operations and signal crossing on plant main track middle crossing.
- Working with the dredging team on overall operations of the processing area.

CENOSPHERE RECOVERY

- Outreach calls focused on the Clinch River area across from the south staging area. This has been an active area in past do to the confluence of the Emory River. The calls reflected more debris being moved downriver as a result of the heavier rains. There were light amount of cenospheres associated with this debris.
- A barge-mounted VAC truck was used this week to help remove cenospheres from the Emory River. The system was a test to see how effective this would work. The results indicated that the system would work well if large amount of cenospheres were collecting on the river. The barge is too large to affectively collect light amounts of cenospheres from the booms. The VTUs work more effectively in these conditions.
- The three barge-mounted vacuum units worked in Division A removing cenospheres. Cenospheres from the dredging area and remaining ash east of dike C continue to generate cenospheres.
- Large amounts of cenospheres have collected in the ash pond and sediment ponds. VAC trucks and pumps have been used to remove these cenospheres. However, work and weather activities continue to add cenospheres to these collection areas.

SKIMMER WALL

- Work on the Skimmer Wall has been suspended until early next year.

DIKE REINFORCEMENT

- Stantec is incorporating comments into drawings.
- The design calculations were forwarded to the BOR for review. The design calculations will be incorporated into a design report which will be issued in the coming weeks.
- Civil Projects began surveying the trees to be removed. The trees are being surveyed to help identify possible causes of future seeps.
- The United States Coast Guard provided a response to the location of navigation channel stating that the

channel moves and will be surveyed once work is completed on the ash removal. Stantec is incorporating the latest navigation channel information into the drawings.
- Continued to monitor the dikes at Kingston on a daily basis.
- Civil Projects continued to work an area of ponding along the intake channel side of Dike C first repair efforts did not completely correct the ponding problem.

ROUTINE MONITORING

Surface Water Sampling

- Routine surface water fixed station monitoring occurred on Monday, October 5th, and Friday, October 9th. Samples for nutrient analyses were also collected on Monday, September 5th. Through September 10th, there have been no ash-related constituents detected above any criteria (i.e., ambient water quality, domestic water supply) for the three constituents of primary interest (arsenic, selenium, mercury). Data deliverables for surface water samples collected by TVA since September 10th have been delayed due to analytical laboratory software modifications associated with the switch from a reporting limit (RL) to a method detection limit (MDL). The switch from RL to MDL is associated with data use for Engineering Evaluation/Cost Analysis (EE/CA) purposes. However, TDEC surface water data for arsenic, selenium, and mercury from September 15th through October 1st reported one exceedence for arsenic (11 ppb at ERM 2.1 on September 15th) above the Tennessee Drinking Water Standard (TDWS). Since the May 4, 2009 Emory River high flow event, the total suspended solids (TSS) concentrations have consistently averaged less than 20 mg/L.
- Triggered by >0.5" rainfall at the KIF rain gauge on Saturday October 10th, additional Swan Pond Embayment sampling was performed on that date.
- Daily monitoring of dredge plumes continued. On Monday, October 5th, and Wednesday, October 7th, TVA and EPA continued the compilation of turbidity measurement data from the mouth of the Emory River to ERM 4.0. The data are being compiled and plotted on Mondays and Wednesdays to determine that turbidity curtain placement is effective to prevent any adverse trends as the dredging operation continues. Since aggressive dredging began, arsenic has been detected in seven plume samples (data through 9/10) above the Tennessee Drinking Water Standard (TDWS), with a maximum in one sample of 0.024 mg/L. Selenium was also detected in two plume samples (September 9th and September 10th), but at values less than the TDWS and the Aquatic Water Quality Standard (AQWS).
- Swan Pond Embayment surface water sampling continues twice weekly at two locations along the Swan Pond Embayment drainage ditches. Since the tie-in off the Embayment settling basins, TSS results from samples collected at the settling basin effluent and from the clean water ditch average below 20 mg/L, except during elevated rainfall events. Total and dissolved arsenic and selenium concentrations have declined as the settling basins and clean water ditch have come on line. The arsenic concentrations sporadically exceed the TDWS, but are below the AWQS. Selenium concentrations are well below the TDWS, but continue to be, on average, above the AWQS.

Sediment Sampling

- Sub-bottom data continue to be reduced and interpreted and the sub-bottom crew continues profile work along the Emory, Clinch, and Tennessee Rivers.
- Several sampling plans are being finalized for further sediment evaluation, including a plan to confirm sub-bottom profiling data from the mouth of the Emory River to Clinch River Mile 2.5 and a plan to collect bed sediment samples from the Emory, Clinch, and Tennessee Rivers for grain size analysis and use by a Corps of Engineers team evaluating sediment transport.

Air Sampling

- All air monitoring results, including fixed-station and real-time monitoring results continue below ambient air quality criteria.
- TVA's real-time TEOM PM2.5 instrument is operating at the Lakeshore Drive (PS07) air monitoring location. Data for this instrument are available on the regulator website.

Data Management

- Comments for the KIP Quality Assurance Project Plan were received from EPA Region 4. TVA is incorporating the comments as well as updating the document to reflect current practices since the original draft was issued in April 2009. The schedule for re-issuance is November 2nd.

Biota Sampling

- Turtle trapping and collection of blood samples continue.
- Mammal trapping has been initiated.
- ORNL and TVA have initiated fall fish collection as part of the overall ongoing fish health study.

FINAL REMEDIATION

- Drafts of most sections of the EE/CA except for the comparison of alternatives were completed last week.
- All comments on the WP were addressed to EPA's satisfaction.
- A meeting was held with EPA to discuss how to move forward with decisions on the lateral expansion area and the ballfield.

DREDGE CELL

- Drainage features were added to the test cell to control erosion potential. Due to wet conditions, only a small amount of ash was added to the test cell.
- Jacobs Engineering, TVA Engineering, Stantec, and AECOM held an all day meeting on Thursday, October 8 to review the status of Seismic Analysis of the Dredge Cell Closure. This is in support of the EE/CA Alternatives that would require a new perimeter closure dike around the failed Dredge Cell. The analysis is critical for identifying some of the design requirements for the new dike, and will take from 4-6-months to complete.

COMMUNICATIONS

Communications

- Issued response to 60 Minutes story.
- Prepared Dredge Report.
- Posted to TVA's Kingston Webpage: List of contractors updated, Weekly Report Added, Emory River to Remain Closed Through February 15, 2010, New Recovery Progress Photos Posted.
- Public notice re: extension of river closing and boat transport assistance.
- Continued to handle daily calls from the news media.

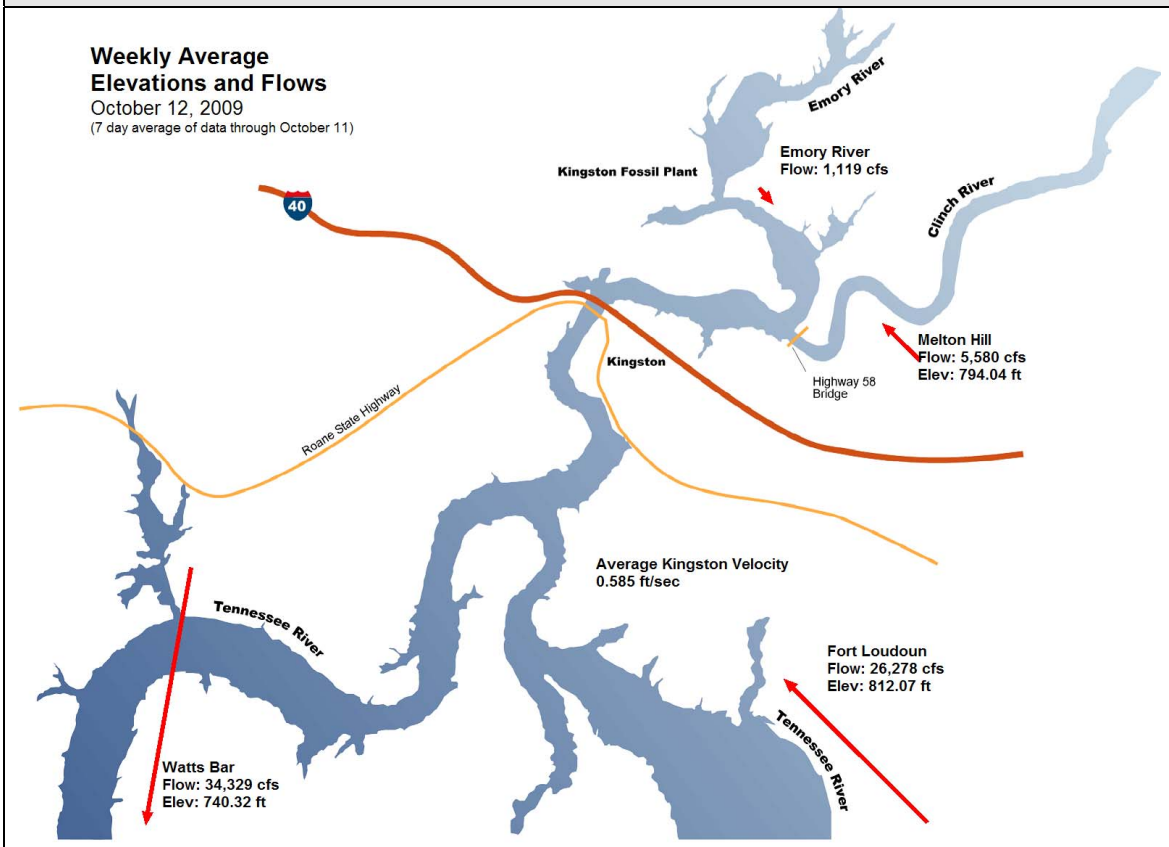
Outreach

- Met with community members re: communications
- Updated Community Advisory Group about dredging.
- Site tour with members of Community Advisory Group.
- Close of public comment period for Action Memorandum and Administrative Record.
- Met with individual residents about property and operations issues.
- Continued to handle calls and visits from residents.
- Responded to Congressional Inquiries and TVAINFO letters about residents.

Valley/Government Relations

- Attended Long-Term Recovery Committee.

RIVER OPERATIONS



MEETINGS/CONFERENCE CALLS

Date	Time	Subject
10/12	0730	Environmental Meeting (ICP Conference Room)
10/12	0900	Dike C Buttress Intake Channel (ICP Conference Room)
10/12	1000	Aquatic Resources Studies (Team Room)
10/13	0900	Free Water Volume Permitting Meeting (ICP Conference Room)
10/13	1100	Project Control/M &P (Team Room)
10/13	1300	Dredge Team Meeting (Team Room)
10/13	1400	Invoice Reviews (Team Review)
10/13	1700	Sevenson Dredge Recovery Meeting (Team Room)
10/14	0800	Time Critical Weekly Meeting (ICP Conference Room)
10/14	0900	Data Management Meeting (ICP Conference Room)
10/14	1000	Communications – Train Stalls (Team Room)
10/14	1100	MRC Environmental & Safety (ICP Conference Room)
10/14	1330	Test America Weekly Call (Conference Call)
10/15	0730	Environmental Meeting (ICP Conference Room)
10/15	0900	KIF Ash Recovery Baseline Review (ICP Conference Room)
10/15	0900	KIF SOP Meeting (Team Room)
10/15	1000	Pace Telecon (Conference Call)
10/15	1130	HSE Staff Meeting (ICP Conference Room)
10/15	1300	Environmental Key Performance Meeting (Team Room)
10/15	1700	Sevenson Dredge Recovery Meeting (Team Room)
10/16	0900	Jacobs Senior Managers Meeting (ICP Conference Room)
Daily	0730	Site Safety Orientation (Team Room)
Daily	1600	Planning Meeting (ICP Conference Room)

Kingston Recovery Project	Date: October 5-11, 2009	Field Report

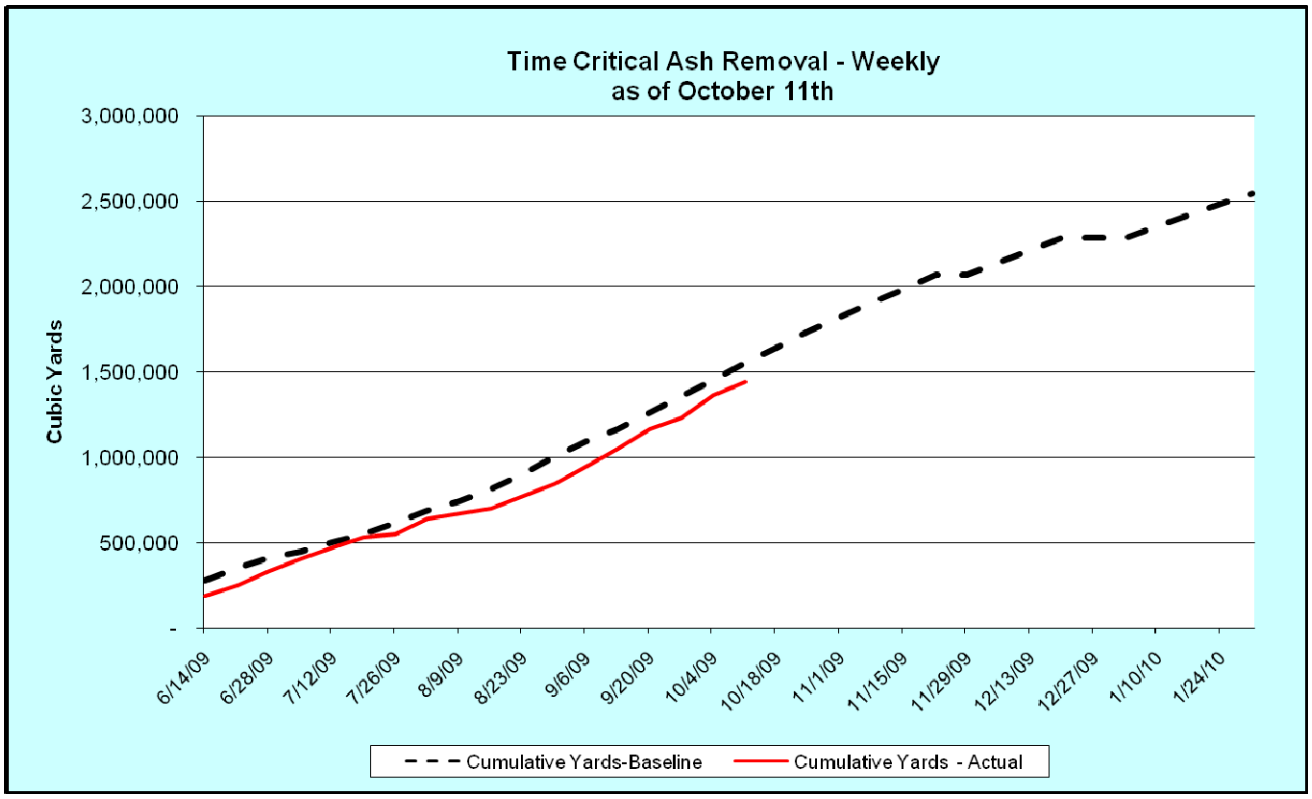
Safety		Weekly Total	Cumulative Total
First Aid Incidents		2	23
Recordable Incidents		0	7
Lost Time Incidents		0	2
Cenosphere/Debris Removal		**Weekly Total**	**Cumulative Total**
Outreach	Light Debris Removal – Land (bags)	0	18,867
Divisions A, B,C,D Cleanup	Division Shoreline Cleanup (bags)	590	81,925
Total	Tons of Light Debris	0	959.57
Cenosphere Slurry	Gallons	232,500	8,246,500

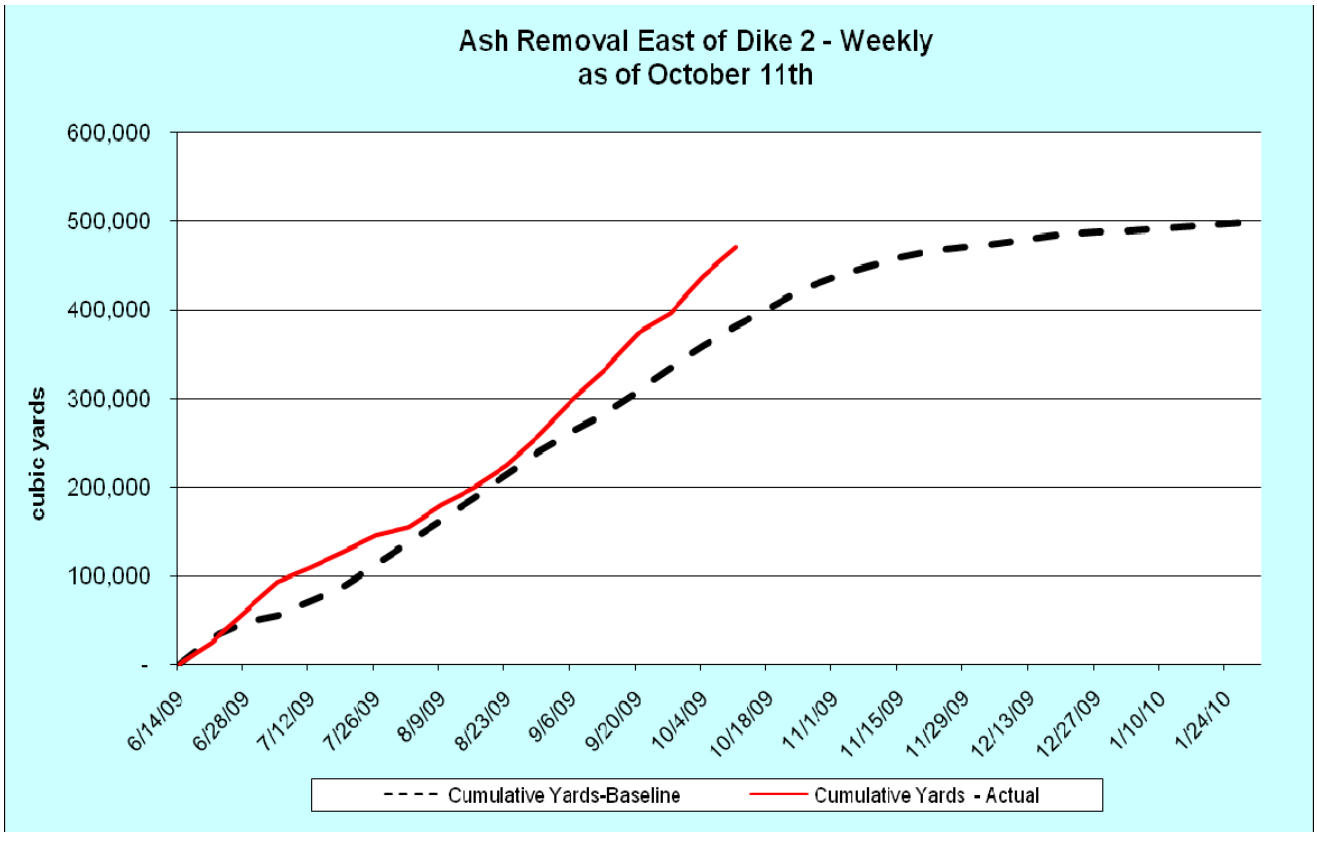
Environmental

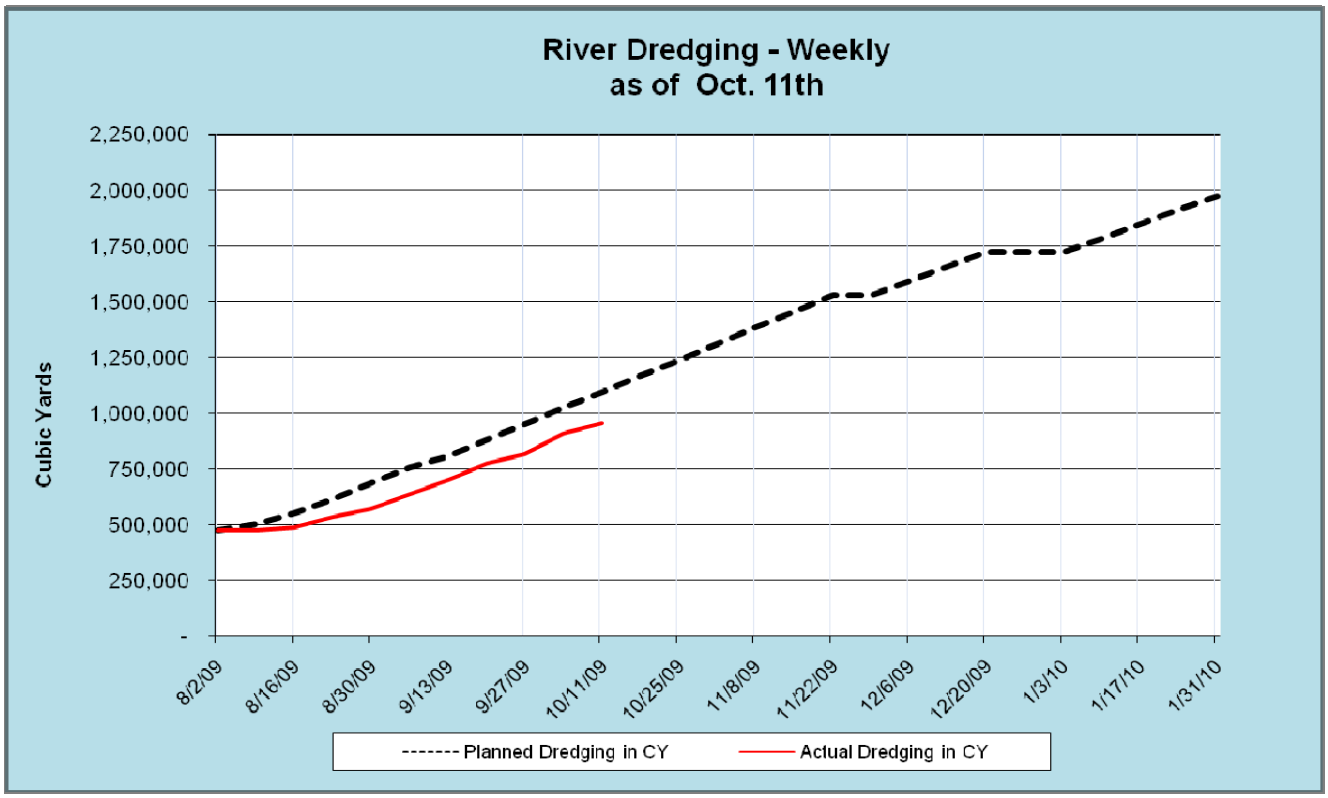
Org	Matrix		Total # Analysis Performed Through 10/01/09
TVA	Air - Real-Time (thru 10/4/09)		116,058
TVA	Air – Fixed (thru 9/28/09)		867
TVA	Surface/Utility Water		16,421
TVA	Ground Water (spring and well)		247
TVA	Ash		104
TVA	Soil/Sediment		85
TVA	Biota		755

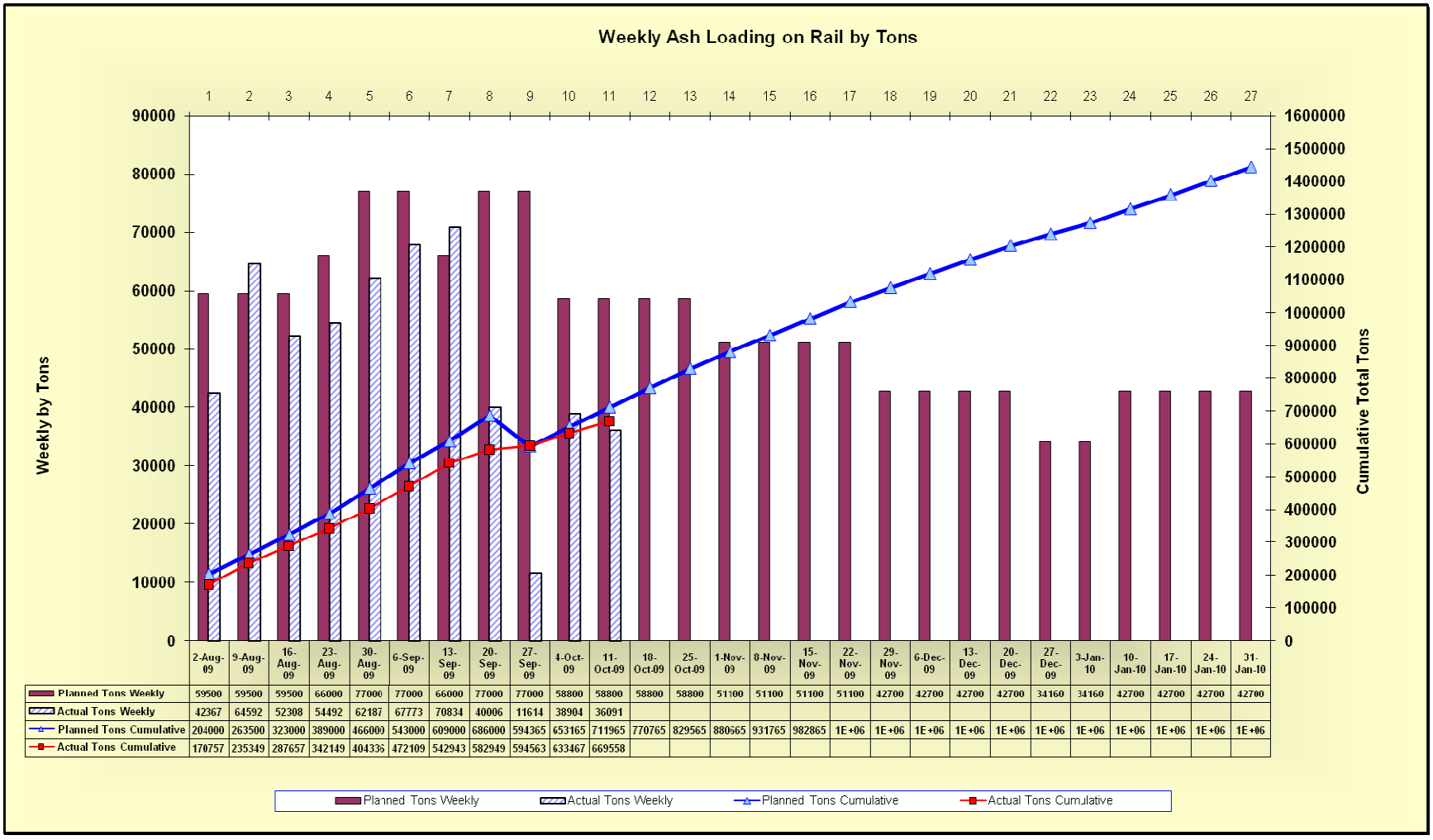
Ash Dredging & Excavation				Weekly Total	Cumulative Total
River	Estimated Cubic Yards thru October 7, 2009 (see Note)			51,307	963,791
Ash Excavation (east of Dike 2)	Estimated Cubic Yards **Modified to an in-place volume			33,000	472,428
Ash Excavation (other)	Estimated Cubic Yards **Modified to an in-place volume			0	73,000**
Ash Disposal	Estimated Tons			52,592	687,766

NOTE: Total dredged from the river has been adjusted to include ongoing survey adjustments and all of TransAsh and TVA reported hydraulic and mechanical dredging to date.


Time Critical Ash Removal - Weekly
as of October 11th
Cubic Yards
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
-
6/14/09
6/28/09
7/12/09
7/26/09
8/9/09
8/23/09
9/6/09
9/20/09
10/4/09
10/18/09
11/1/09
11/15/09
11/29/09
12/13/09
12/27/09
1/10/10
1/24/10
Cumulative Yards-Baseline
Cumulative Yards - Actual


Ash Removal East of Dike 2 - Weekly
as of October 11th
cubic yards
600,000
500,000
400,000
300,000
200,000
100,000
-
6/14/09
6/28/09
7/12/09
7/26/09
8/9/09
8/23/09
9/6/09
9/20/09
10/4/09
10/18/09
11/1/09
11/15/09
11/29/09
12/13/09
12/27/09
1/10/10
1/24/10
Cumulative Yards-Baseline
Cumulative Yards - Actual


River Dredging - Weekly
as of Oct. 11th
Cubic Yards
2,250,000
2,000,000
1,750,000
1,500,000
1,250,000
1,000,000
750,000
500,000
250,000
-
8/2/09
8/16/09
8/30/09
9/13/09
9/27/09
10/11/09
10/25/09
11/8/09
11/22/09
12/6/09
12/20/09
1/3/10
1/17/10
1/31/10
Planned Dredging in CY
Actual Dredging in CY



	2-Aug-09	9-Aug-09	16-Aug-09	23-Aug-09	30-Aug-09	6-Sep-09	13-Sep-09	20-Sep-09	27-Sep-09	4-Oct-09	11-Oct-09	18-Oct-09	25-Oct-09	1-Nov-09	8-Nov-09	15-Nov-09	22-Nov-09	29-Nov-09	6-Dec-09	13-Dec-09	20-Dec-09	27-Dec-09	3-Jan-10	10-Jan-10	17-Jan-10	24-Jan-10	31-Jan-10
Planned Tons Weekly	59500	59500	59500	66000	77000	77000	66000	77000	77000	58800	58800	58800	58800	51100	51100	51100	51100	42700	42700	42700	42700	34160	34160	42700	42700	42700	42700
Actual Tons Weekly	42367	64592	52308	54492	62187	67773	70834	40006	11614	38904	36091																
Planned Tons Cumulative	204000	263500	323000	389000	466000	543000	609000	686000	594365	653165	711965	770765	829565	880665	931765	982865	1E+06	1E+06	1E+06	1E+06	1E+06	1E+06	1E+06	1E+06	1E+06	1E+06	1E+06
Actual Tons Cumulative	170757	235349	287657	342149	404336	472109	542943	582949	594563	633467	669558																