

# KINGSTON ASH RECOVERY PROJECT WEEKLY REPORT

February 22-28, 2010

Aerial Image of Kingston Ash Slide (01/11/2010)



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Date of map imagery: 01/11/2010

Tennessee Valley Authority  
E&T - Environmental Resources  
Geographic Information & Engineering

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# KINGSTON ASH RECOVERY PROJECT

## WEEKLY REPORT

February 22-28, 2010

### HIGHLIGHTS

- Cumulatively, just over 2,691,736 cubic yards of ash have been removed from the river and east of Dike 2.
- To date, 166 unit trains, with a total of approximately 1,535,750 tons, have been loaded and transported to Alabama.
- The TVA General Manager of the Project presented EE/CA information to Harriman Kiwanis Club and the EPA representative presented to Harriman Lions Club.

### SAFETY

#### Program Summary

- 21 site specific HSE orientations conducted for the week, 1293 to date.
- 6 Safety Observation Reports submitted for the week: 682 to date; 575 of which have been closed.

#### Recordable Incidents

None reported for this week. However two first aid cases from previous weeks were reclassified as recordable cases:

- On 2/4/10 a Severson teamster was stepping out of a crew van, rolling his ankle on a rock. He was treated at the onsite paramedic trailer and released to duty. His pain continued over the course of the next three weeks and he was taken to the Severson occupational clinic on 2/23/10. On 2/24/10 during his lunch break, he returned to the clinic and at that time was given a prescription for pain medication. This resulted in the injury being reclassified as a recordable case.
- On 2/19/10 two MACTEC laborers were lining rail cars while in the basket of a slightly elevated JLG lift that subsequently hit the ground/track because of wheel/axle failure. Both operator and passenger were jarred due to the impact. The passenger had some general discomfort, was taken to the site medical clinic and released to return to work. He followed up with the site paramedic over the next four days, and continued to do so during his scheduled 4 day break from the site. Upon return, the site paramedic recommended that he visit a physician. The physician prescribed medication and recommended restricted duty, thus resulting in the injury being reclassified as a recordable case.

#### Non-Recordable Incidents

- 2/28/10 – Severson Articulating Dump Truck experienced an electrical fire in the starter circuitry. Extinguished, and no damage to other equipment and no injuries reported.

### INFRASTRUCTURE/ASH MANAGEMENT

- Continued with dust suppression activities, road maintenance, and HAZWOPER controls.
- Both the valley area and the west storage areas were used and maintained this week. Confirmation sampling of the northern portion of the east embayment was completed this week. There is no visible evidence of remaining ash. The samples are being examined under a microscope at a laboratory.
- The porta-dam was removed from the berm on the east embayment in preparation for the final removal activities.
- Offsite Utilities – Mayse Construction completed installation of 1,152 ft. of 10" Kingston Water Line for week and continued boring under I-40 and Church Slough. Roads were cleaned and work was stopped for a family funeral at Swan Pond Baptist Church on Tuesday morning, February 21.
- QCRR finished installation of Access Road crossings and started installing ties and rails on Track #3.

### ASH DREDGING & PROCESSING

- Approximately 46,974 cy of ash were removed from the river. The fourth dredge was brought on line. Dredging continued on Sunday. All operations except the filter presses are now being conducted on Sunday.
- Effluent from the ash pond dredges were sent to the lateral expansion area and the filter presses. The effluent from the lateral expansion area indicates that the flow is bypassing settling. The effluent pipe location was modified to attempt to limit the bypass.
- Mechanical dipping from the ash pond began this week. The dipped ash is being taken to the sluice trench dewatering area.

- Eleven filter presses were operational throughout the week. The cake consistency and cycle time were within committed levels and the presses are operating as designed.
- Lime was brought on site and used to treat the sluice trench material and ash from the filter presses.
- Roughly 22,600 cy of material were hauled off the ballfield or the sluice trench to storage on site. The condition of the ballfield has been restored for routine operation although work continues to improve the roads.

## ASH DISPOSITION

- Loaded and transported 6 unit trains this week. Train switching was stopped for a family funeral on Tuesday morning, February 21.
- Have loaded and transported 166 unit trains for a total of approximately 1,535,750 tons.
- Continued inspection and maintenance of the rail in the rail yard.
- Continued monitoring moisture content of the ash and placing polymer in rail cars prior to shipping to Alabama.

## CENOSPHERE RECOVERY

- Three boat crews worked in the Tennessee River resolving Outreach calls. One boat crew worked in the Emory and Clinch Rivers cleaning booms, responding to Outreach calls and checking on public areas.
- Water levels appear to have stabilized at ~736.5' MSL and flows have returned to normal levels. The river visually appears to be in good shape with limited debris and cenospheres.
- Large amounts of cenospheres continued to collect in the Ash Pond as a result of dredging activities. Cenospheres were relocated from a small collection associated with the dipping operation to the large cenosphere pond. Crews worked to keep the weir areas clean.

## SKIMMER WALL

- Evaluated and selected contractor to perform Skimmer Wall debris removal operations. Supply Chain is in the process of awarding contract.
- Debris removal will start on March 17, 2010.

## DIKE REINFORCEMENT

- Dike C Buttress work continued. Approximately 760 feet of haul road and 718 feet of slope have been completed.
- Material quality remained within specifications.
- Work conditions remained tight and Civil Projects worked on ways to better improve their ability to haul out ash while bringing in buttress material.
- An Addendum 001 was forwarded to the EPA to approve the change to the specifications for in place material approval.
- Continued to monitor the dikes at Kingston on a daily basis.

## ROUTINE MONITORING

### Surface Water Sampling

- Routine surface water monitoring at the ten fixed river locations occurred on Monday February 22 and Friday February 26 as scheduled. EPA collected split samples during the Monday sampling event.
- Surface water analytical results are compared to the Tennessee Drinking Water Standards (TDWS) and the Ambient Water Quality Criteria for Fish and Aquatic Life (F&AL) to establish a reference point for evaluating the potential significance of the data. Although the most impacted section of the Emory River has been closed to public use, the Emory, Clinch, and Tennessee Rivers are classified for use for Recreation and as a source for Domestic Water Supplies. However, closure of the most impacted reach of the Emory River during the ash recovery operation must be considered in these comparisons.
- Noteworthy results are reported below for Fixed River Location samples collected between 12/04/09 and 01/29/2010. Comparisons to the F&AL are performed for dissolved concentrations only.
  - On the Tennessee River, the detectable arsenic concentrations were well below the TDWS. Selenium was not detected in any samples.
  - On the Clinch River, all detected concentrations of arsenic and selenium were less than the TDWS and F&AL.
  - On the Emory River, one arsenic detect from a sample collected on January 15 was approximately equal to the TDWS and selenium detects in surface water samples were less than the TDWS and F&AL.
- Daily monitoring of dredge plumes continued. 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.

- Plumes in the vicinity of dredging operations contain large amounts of suspended ash that settle out quickly and are not representative of overall water quality in the Emory River. Comparing Plume results to those from Fixed Station Locations provides an indication of the effectiveness of silt curtains and other Best Management Practices (BMPs) employed by the project
- Swan Pond Embayment surface water sampling continues routinely twice per week at two locations along the Swan Pond Embayment drainage ditches. The sampling on Tuesday February 23 coincided with a 24-hour local rainfall exceeding 0.5".

#### **Sediment Sampling**

- A vibrocore crew continued sediment sampling and visual characterization north on the Emory River to assist in identifying additional areas for dredging.

#### **Air Sampling**

- The majority of air monitoring results, including fixed-station and real-time monitoring results continue below ambient air quality criteria.
- TVA's real-time tapered element oscillating microbalance (TEOM) PM2.5 instrument is operating at the Lakeshore Drive (PS07) air monitoring location. Overall, PM2.5 measurements for the past week were well below the action level of 26 micrograms per cubic meter.

#### **Data Management**

- Electronic data deliverables are flowing into the Equis database.
- Data validation continues for electronic data packages received from the laboratories.
- Migration of data from the TVA Equis to the EPA SCRIBE database is ongoing.

#### **Biota Sampling**

- No activity to report.

#### **Non-Routine Sampling**

- Sampling to verify that all ash has been removed from the north end of the East Embayment was completed on Wednesday February 17. Samples were shipped to a laboratory for microscopic evaluation for the presence of ash particles.

### **FINAL REMEDIATION**

- EE/CA – waiting for end of public comment period. No activity this week.
- Action Memorandum – waiting for TVA comments on the AM and ARARs. No activity this week.
- River System Sampling and Analysis Plan – waiting for EPA/TDEC comments on the SAP. Held a meeting at the Kingston site with the Technical Working Group to assist in that review.
- Removal Action Work Plan – prepared an initial draft for input from Jacobs subject matter experts. Prepared initial WBS, cost estimate, and schedule for the Non-Time-Critical removal activities in the Swan Pond Embayment and Dredge Cell/Ash Pond. Held a meeting with Stantec, AECOM, CCP Engineering at the Kingston site to review the current static and dynamic analysis for the Dredge Cell perimeter containment.

### **DREDGE CELL**

- Roughly 12,000 cy ash were placed in the test embankment this week. Much of the material came from the relic area.

### **COMMUNICATIONS**

#### **Communications**

- Posted to website: Weekly Report and Weekly Area Resident Update information.
- Compiled material for Dredge Report for site and plant employees.
- Updated bulletin boards at boot-wash stations site wide.
- Prepared newspaper ad for public comment on time-critical work plans for February.
- Prepared newspaper ad for March 9 Availability Session.
- Worked on final revisions to Community Involvement Plan (CIP) Responsiveness Summary; continued revising CIP as appropriate based on comments from the public.
- Sent weekly update to members of the public who have signed up to receive it.

- Continued to handle calls from the news media.

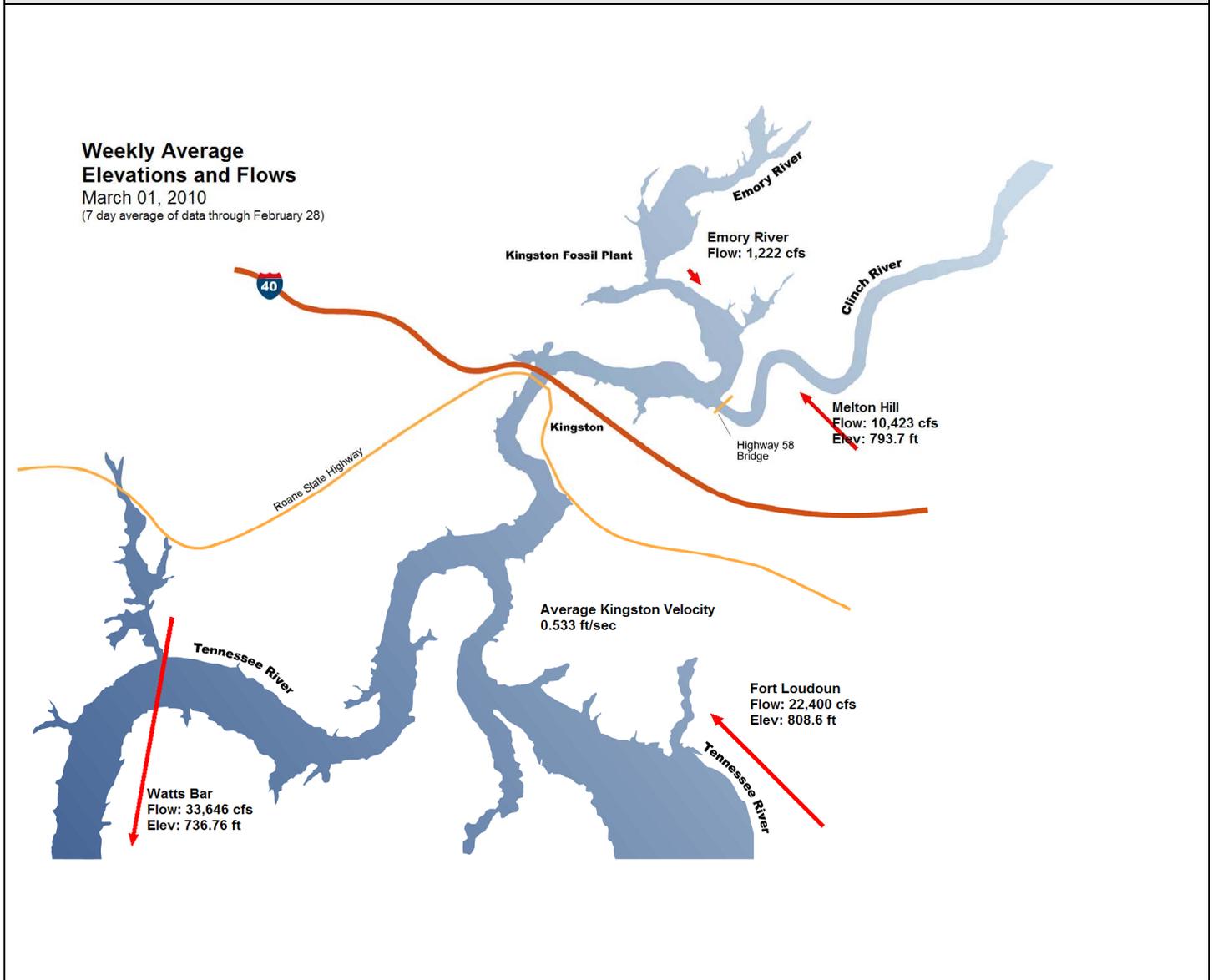
**Outreach**

- Amended EE/CA Fact Sheet and sent to TVA Creative Services for mailing to Roane County residents with information on how to comment on the different alternatives.
- Provided various updates on utility installation and site activities to the Community Advisory Group.
- Updated Administrative Record with work plans.
- Continued to handle calls and visits from residents.
- Continued to gather comments on various administrative record documents.

**Government/Valley Relations**

- Sent site update to public officials.

**RIVER OPERATIONS**



<b>MEETINGS/CONFERENCE CALLS</b>		
<b>Date</b>	<b>Time</b>	<b>Subject</b>
03/01	0730	Environmental Meeting (ICP Conference Room)
03/01	0730	Piezometer Meeting (Jacobs Meeting Room)
03/01	0900	Dike C Buttress Intake Channel (ICP Conference Room)
03/01	1000	Aquatic Resources Studies (Team Room)
03/01	1200	MACTEC Safety Meeting (Jacobs Meeting Room)
03/01	1400	Schedule Updates (ICP Conference Room)
03/01	1600	TDEC Conf Call (Team Room)
03/02	0800	Dredge Cell Test Embankment (ICP Conference Room)
03/02	0930	BCP Meeting (ICP Conference Room)
03/02	0930	Communications (Team Room)
03/02	1000	TVA Communications (Team Room)
03/02	1030	Project Review Weekly Meeting (ICP Conference Room)
03/02	1130	Jacobs Staff Meeting (ICP Conference Room)
03/02	1330	Dredge Team Meeting (ICP Conference Room)
03/03	0800	Time Critical Weekly Meeting (ICP Conference Room)
03/03	0900	E Room Meeting (Team Room)
03/03	0900	Data Management Meeting (ICP Conference Room)
03/03	1000	Chet Kato (Team Room)
03/03	1000	Uniontown Ash Unloading (Jacobs Meeting Room)
03/03	1100	MRC Environmental & Safety Meeting (ICP Conference Room)
03/03	1300	Security Requirements (ICP Conference Room)
03/03	1330	Test America Weekly Call (Conference Call)
03/04	0730	Environmental Meeting (ICP Conference Room)
03/04	0900	Work Control Process Alignment Seccion (ICP Conference Room)
03/04	0900	LTD Project Controls (Team Room)
03/04	1000	Pace Telecon (Conference Call)
03/04	1130	HSE Staff Meeting (Old ICP Conference Room)
03/04	1300	Focus Review for Alignment (Team Room)
03/04	1400	SOP Meeting (Old Team Room)
03/04	1500	Project Planning (ICP Conference Room)
03/05	0900	Jacobs Senior Managers Meeting (ICP Conference Room)
Daily	0900	MACTEC Daily Reconciliation (Jacobs Meeting Room)
Daily	0730	Site Safety Orientation (Old Team Room)
Daily	1600	Planning Meeting (ICP Conference Room)
Daily	1630	Ash Disposal Daily Recap (Team Room)

Kingston Recovery Project		Date: February 22-28, 2010		Field Report	
<b>Safety*</b>				<b>Weekly Total</b>	<b>Cumulative Total</b>
Near Misses				0	38
First Aid Incidents				0	29
Recordable Incidents				0	7
Lost Time Incidents				0	9
<b>Cenosphere/Debris Removal</b>				<b>Weekly Total</b>	<b>Cumulative Total</b>
Outreach		Light Debris Removal – Land (bags)		0	18,867
Divisions A, B,C,D Cleanup		Division Shoreline Cleanup (bags)		1,425	94,540
Total		Tons of Light Debris		0	959.57
Cenosphere Slurry		Gallons		96,000	12,189,000
<b>Environmental</b>					
<b>Org</b>	<b>Matrix</b>	<b>Samples*</b>	<b>Analyses*</b>	<b>Results*</b>	
TVA	Air - Real-Time	--	--	171,126	
TVA	Air – Fixed	1,734	--	2,320	
TVA	Surface/Utility Water	3,129	26,319	129,761	
TVA	Ground Water (spring and well)	71	794	2,953	
TVA	Ash	78	104	1,689	
TVA	Soil/Sediment	154	316	2,922	
TVA	Biota	713	1,671	17,766	
*Week ending 02/26/10					
<b>Ash Dredging &amp; Excavation</b>				<b>Weekly Total</b>	<b>Cumulative Total</b>
River	Estimated Cubic Yards thru February 28, 2010 (see Note)			46,974	2,108,107
Ash Excavation (east of Dike 2)	Estimated Cubic Yards **Modified to an in-place volume			0	583,629**
Ash Excavation (other)	Estimated Cubic Yards **Modified to an in-place volume			0	73,000**
Ash Disposal	Estimated Tons			57,990	1,535,750

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.

River Dredging - Weekly  
as of February 28th

