

# KINGSTON ASH RECOVERY PROJECT

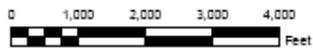
## WEEKLY REPORT

April 26 – May 2, 2010

Aerial Image of Kingston Ash Slide (02/27/2010)



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Date of map imagery: 02/27/2010

Tennessee Valley Authority  
Geographic Information & Engineering

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Issue (Date/Time)  
05/04/2010 11:25:19 AM

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## WEEKLY REPORT

April 26 – May 2, 2010

### HIGHLIGHTS

- Cumulatively, just over 3,213,500 cubic yards of ash have been removed from the river and east of Dike 2.
- To date, 219 unit trains have been loaded and just over 2,074,000 tons of ash has been transported to Uniontown, Alabama.

### SAFETY

#### Program Summary

- 33 site specific HSE orientations were conducted for the week – 1,519 to date.
- 34 Safety Observation Reports submitted for the week: 1,087 to date; 1,036 have been closed.

#### Incidents

- April 26, 2010 - A teamster for Severson suffered a twisted ankle, and was sent to First Aid and treated by the paramedic on site with ice packs. The teamster returned to work.
- April 28, 2010 – A MACTEC JLG operator at the lining yard got too close to the railcar. In maneuvering away, the JLG ran into the railcar. There was damage to the JLG, but no one was injured. The investigation is ongoing.
- April 30, 2010 – While working on the utilities between I-40 and Highway 70, a Mayse Construction subcontractor, Hiwassee Construction, damaged a passenger vehicle while pushing a steel rod through a previously drilled directional bore. The car had two tires damaged and possible damage to the suspension after running over the drill rod as it had breached the bore and inadvertently traveled across the east bound lanes of Interstate 40. No injuries occurred. The investigation is ongoing.

### INFRASTRUCTURE/ASH MANAGEMENT

- Efforts for site maintenance, dust control, and HAZWOPER control continued.
- Sample collection was completed in the east embayment to confirm completion of this area. Onsite laboratory results show a few inches of ash in the deepest part of the embayment. Awaiting confirmation from laboratory results.
- Small areas of ash next to Bob Summers Road continued to be removed this week. Virtually all ash on the land east of Dike 2 that can be removed prior to dredging demobilization has been removed.
- Construction of Swan Pond Circle diversion road was started by TVA Civil Projects.
- Design of Swan Pond Circle Road underpass bridge was completed by Jacobs and issued to TVA Supply Chain for going out for bid.
- The offsite utilities contractor, Mayse Construction, continued excavation, borings, and installation of the 10" Kingston Utility Board water line, Harriman Utility Board water and gas lines, and AT&T conduit along Swan Pond Road, Swan Pond Circle, Hassler Mill Road, and Highway 70. Utilities restoration is 53% complete; enhancements are 47% complete; and the project is 62% complete.

### ASH DREDGING & PROCESSING

- A total of 62,695 cy of ash were removed from the river this week by Severson.
- Mechanical dredging north of the site continued this week. The locations of two dredges were exchanged to maximize the production of each. Vibecore samples are being taken before the dredges to help define where dredging should occur. Ash is being taken to the lateral expansion area for storage.
- Work continued dipping from the rim ditch and sluice trench. Lime treatment at the sluice trench was started this week using Mt. Carmel.
- Support was provided to Aquarius to offload their barges from the skimmer wall removal project. A scope of work was put in place to use Aquarius equipment next week to support the mechanical dredging activity.
- Efforts continued in the ballfield to move ash to the tracks and to dry the windrows.

### ASH DISPOSITION

- Loaded and transported 7 unit trains this week.
- Have loaded and transported 219 unit trains for a total of approximately 2,074,100 tons.

- Received over 5" of rain between Saturday night and Sunday at the Kingston site. No loading operations were performed, but there were enough loaded rail cars in surge to allow us to ship a train on Sunday.
- Continued inspection, maintenance, and repair of the rail in the rail yard. The repair work includes replacing rail and ties, installing rail anchors, checking and re-gauging rail, and identifying additional ties for replacement.
- Continued monitoring moisture content of the ash and placing polymer in rail cars prior to shipping to Alabama.

## CENOSPHERE RECOVERY

- Boat crews reinstalled the boom across from Kingston Park area and under the I-40 bridge. The booms removed from the Tennessee and Ladd's Landing were not replaced.
- Crews worked in the Emory River along the eastern shoreline cleaning cenospheres and debris.
- One boat crew manned the southern boom in the Emory River.
- In response to a resident complaint, the excavator and boat crews worked a property along the Tennessee River. The effort was debris removal only. No cenospheres were present.
- Ash Pond conditions seem to be improving. Although large amounts of cenospheres are showing up, the crews can keep up with the removal by dipping and pumping.

## SKIMMER WALL

- Aquarius Marine, LLC, the Skimmer Wall debris removal contractor, continued exploratory dredging for caissons and beams. Divers started installing rigging of the first caisson; and plans for the first lift will be Wednesday of next week.
- Skimmer Wall Reconstruction contract bids were received and evaluations will start next week.

## DIKE REINFORCEMENT

- Dike C Buttress work continued. Civil Projects was testing a conveyor delivery system for placing sand and the smaller stone. When the slope of the buttress increases to 6:1 it is going to be more difficult to place material from the shore line. The conveyor system might resolve this problem and increase productivity.
- Buttress construction is about 24% complete. Progress was slowed as Civil Projects tested out the new conveyor delivery system.
- Segment C drawings have been approved by the EPA and Issued For Construction drawings have been sent to the field.
- Continued to review Segment B drawings.
- 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, April 26<sup>th</sup>, and Friday, April 30<sup>th</sup>.
- 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 03/10/2010 and 04/09/2010. Comparisons to the F&AL are performed for dissolved concentrations only.
  - On the Tennessee River, the arsenic was detected in 2 of 13 samples at concentrations well below the TDWS and F&AL. Selenium was not detected in any samples.
  - On the Clinch River, arsenic was detected in 49 of 50 samples at concentrations well below the TDWS and F&AL. Thallium was detected in 2 of 50 samples at concentrations above the Tennessee Water Quality Criteria (TWQC). Selenium was not detected in any samples.
  - On the Emory River, arsenic was detected in 39 of 61 samples with all concentrations less than the TDWS and the F&AL. Lead was detected in 40 of 62 samples with one result exceeding the TDWS. Selenium was detected in two samples at concentrations less than the TDWS and F&AL. Thallium was detected in 9 of 62 samples, with all results exceeding the TWQC.
- 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.

#### **Sediment Sampling**

- Vibecore sampling continues in support of dredging operations.

#### **Air Sampling**

- The majority of air monitoring results, including fixed-station and real-time monitoring results are below ambient air quality criteria. Where instantaneous PM10 measurements above 150 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) were recorded, they were associated with wood fires or around railroad and utility work.
- TVA currently operates two real-time PM2.5 instruments: a tapered element oscillating microbalance (TEOM) PM2.5 instrument at Lakeshore Drive (PS07); and a PM2.5 Beta Attenuation Monitor (BAM) at the northern-most reach of proposed work in the North Embayment (PS13). PM2.5 measurements at both stations for the past week averaged below the action level of  $26 \mu\text{g}/\text{m}^3$ .
- Additional BAM instruments will be installed over the next few weeks at several other air monitoring stations.
- EPA is planning to collect co-located samples at two of the TVA air monitoring stations. Logistics are under review by site EPA staff.

#### **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**

- Osprey, heron, and Canada goose egg collection continues.
- Bird box deployment was completed and monitoring of activity at the boxes continues.

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

- TVA field staff provided logistics support to and collected split samples from a team from Duke University this past week. Sampling locations included the points on the Emory, Clinch, and Tennessee Rivers. Media sampled included sediments, pore water, and surface water.

### **FINAL REMEDIATION**

- Continued to revise the Sampling and Analysis Plan for the river system based upon comments received from EPA and TDEC. Received a supplemental comment from Rubin Crosslin of TWRA, and prepared a supplemental response to that comment.
- Continued to work on drafts of the EE/CA Responsiveness Summary and Action Memorandum
- Submitted Stantec's report on the Test Embankment to EPA and TDEC on April 28<sup>th</sup>.
- Received comments from TDEC on the Deep Soil Mixing Pilot Test Work Plan (Dredge Cell Closure) on Thursday, April 29<sup>th</sup>.

### **DREDGE CELL**

- The Deep Soil Mixing Project contract was awarded to Remedial Construction Services, L.P. (RECON).

### **EMBAYMENT ASH PROCESS**

- Ash consolidation started in the north embayment by TVA Civil Projects.

### **COMMUNICATIONS**

#### **Communications**

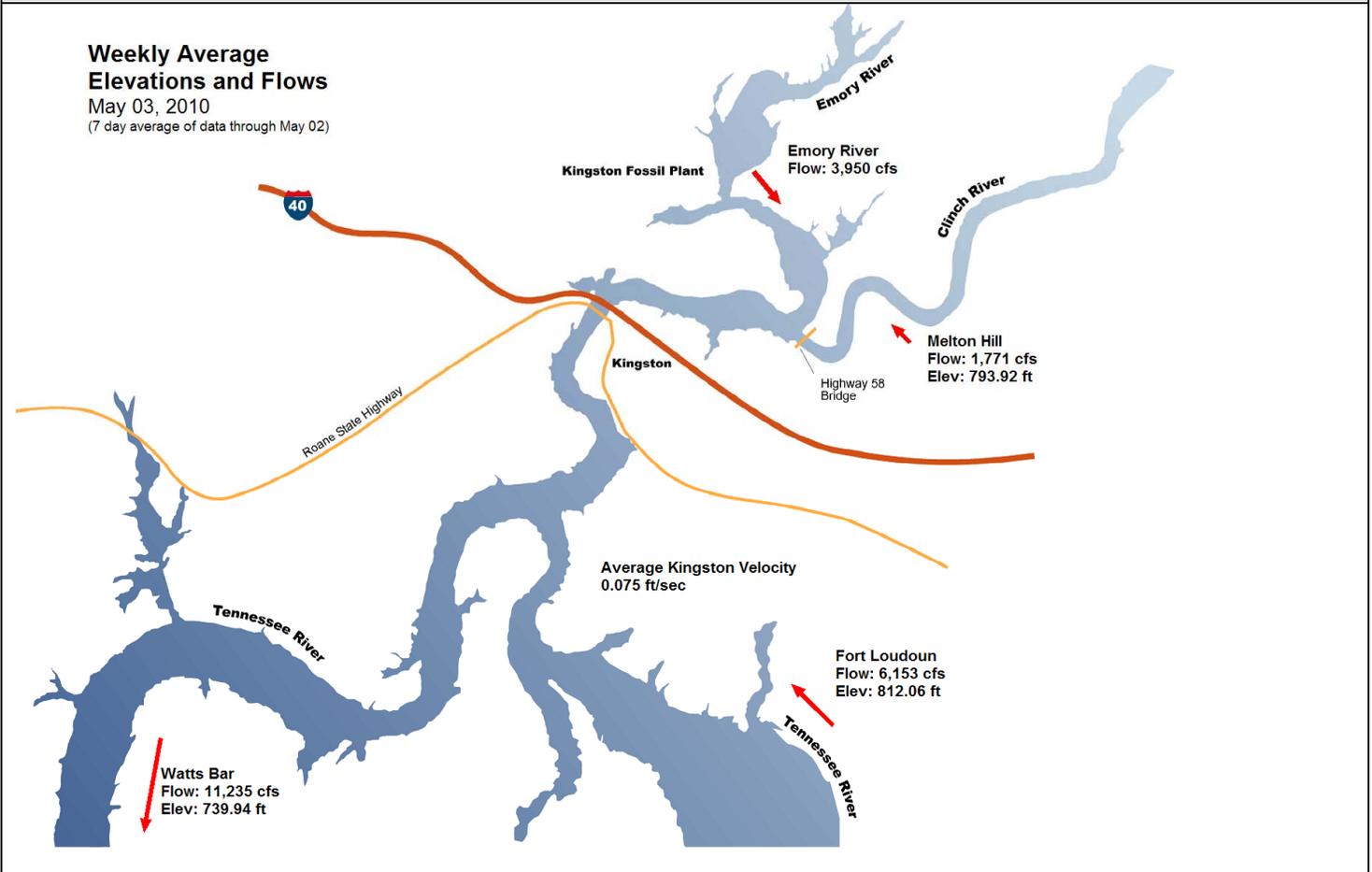
- Posted to Web site: Weekly Report and Weekly Area Resident Update information.
- Submitted ad for public meeting.
- Prepared ad for April Work Plans.
- Updated information bulletin boards throughout the site.
- Continued to work on addendum to the Community Involvement Plan with information about the Engineering Evaluation/Cost Analysis.

- Sent weekly update to members of the public who have signed up to receive it.
- Continued to handle calls from the news media.
- Picked up and delivered Dredge Report to site locations and Kingston Fossil Plant.

**Outreach**

- Provided updates on site activities to the Community Advisory Group.
- Updated Administrative Record with work plans.
- Continued to respond to calls and visits from residents.
- Updated message boards along Swan Pond Rd. as appropriate.
- Worked on Kingston Ash Recovery Project Site update column for Roane County News.

**RIVER OPERATIONS**



<b>MEETINGS/CONFERENCE CALLS</b>		
<b>Date</b>	<b>Time</b>	<b>Subject</b>
05/03	0800	Environmental Group Meeting (ICP Conference Room)
05/03	0800	Sampling and Analysis Plan (Trailer 1 Meeting Room)
05/03	0830	Alignment of Non-Time Critical (Team Room)
05/03	1000	Mayse Incident Meeting (ICP Conference Room)
05/03	1000	Aquatic Resources Studies (Team Room)
05/03	1000	Programs and Activities (Trailer 1 Meeting Room)
05/03	1200	Recon Kickoff Meeting (Team Room)
05/03	1200	MACTEC Safety Meeting (Trailer 1 Meeting Room)
05/03	1300	Environmental Staff Meeting (ICP Conference Room)
05/03	1400	Leaching Testing (Team Room)
05/03	1400	Schedule Updates (ICP Conference Room)
05/04	0730	Process for Developing & Finalizing Procedures (ICP Conference Room)
05/04	0800	JMJ Associates (Trailer 1 Meeting Room)
05/04	0930	BCP Meeting (ICP Conference Room)
05/04	0930	Communications (Team Room)
05/04	1000	TVA Communications (Team Room)
05/04	1330	Dredge Team Meeting (ICP Conference Room)
05/04	1330	Safety Alignment Meeting (Old ICP Conference Room)
05/05	0800	JMJ Associates (Trailer 1 Meeting Room)
05/05	0900	Non-Time-Critical Weekly Meeting (ICP Conference Room)
05/05	1000	Discuss Implementation of Proposed Ash Management Plan (Team Room)
05/05	1100	MRC Environmental & Safety Meeting (ICP Conference Room)
05/05	1330	Test America Weekly Call (Conference Call)
05/05	1400	Sequence of Activities (Old ICP Conference Room)
05/05	1430	Data Management Meeting (ICP Conference Room)
05/06	0800	JMJ Associates (Trailer #1 Meeting Room)
05/06	0900	Stantec Re-Baseline Estimates (ICP Conference Room)
05/06	0900	Kingston Update (Team Room)
05/06	1000	Pace Telephone (Conference Call)
05/06	1000	Utility Progress Meeting (Team Room)
05/06	1130	HSE Staff Meeting (ICP Conference Room)
05/06	1400	SOP Meeting (Team Room)
05/07	0900	Jacobs Senior Managers Meeting (ICP Conference Room)
Daily	0730	TVA Monitoring Wells Meeting (Trailer 1 Meeting Room)
Daily	0730	Site Safety Orientation (Old ICP Conference Room)
Daily	1500	Continuation of Dredge Progress & Contingency Plan (ICP Conference Room)
Mon-Thur	1600	Planning Meeting (ICP Conference Room)
Daily	1630	Ash Disposal Daily Recap (Team Room)

Kingston Recovery Project		Date: April 26 – May 2, 2010		Field Report	
<b>Safety</b>				<b>Weekly Total</b>	<b>Cumulative Total</b>
Near Misses				0	43
First Aid Incidents				1	33
Recordable Incidents				0	10
Recordable Lost Time Incidents				0	12
<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)		647	102,597
Total		Tons of Light Debris		0	959.57
Cenosphere Slurry		Gallons		141,000	13,599,000
<b>Environmental</b>					
<b>Org</b>	<b>Matrix</b>	<b>Samples*</b>	<b>Analyses*</b>	<b>Results*</b>	
TVA	Air - Real-Time	--	--	213,707	
TVA	Air – Fixed	2,07	--	2,990	
TVA	Surface/Utility Water	3,651	31,705	153,629	
TVA	Ground Water (spring and well)	87	995	3,921	
TVA	Ash	78	104	1,689	
TVA	Soil/Sediment	207	371	2,973	
TVA	Biota	949	2,155	24,292	
*Week ending 04/30/2010					
<b>Ash Dredging &amp; Excavation</b>				<b>Weekly Total</b>	<b>Cumulative Total</b>
River	Estimated Cubic Yards (see Note)			62,695	2,454,676
Ash Excavation (east of Dike 2)	Estimated Cubic Yards **Modified to an in-place volume			0	758,849
Ash Excavation (other)	Estimated Cubic Yards **Modified to an in-place volume			0	73,000**
Ash Disposal	Estimated Tons			69,051	2,074,100

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.

### Ash Loading to Trains - Weekly as of May 2nd

