

KINGSTON ASH RECOVERY PROJECT WEEKLY REPORT May 17-23, 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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KINGSTON ASH RECOVERY PROJECT

WEEKLY REPORT

May 17-23, 2010

HIGHLIGHTS

- Cumulatively, just over 3,375,800 cubic yards of ash have been removed from the river and east of Dike 2.
- To date, 240 unit trains have been loaded and approximately 2,286,600 tons of ash has been transported to Uniontown, Alabama.
- The Action Memorandum for the Non-Time-Critical Removal Action for the Embayment/Dredge Cell was approved by TVA, EPA, and TDEC and was released to the public on May 18th.
- A Public Meeting was conducted to discuss the Action Memo and EE/CA Responsiveness Summary.

SAFETY

Program Summary

- 9 site specific HSE orientations were conducted for the week – 1,550 to date.
- 2 Safety Observation Reports submitted for the week: 1,146 to date; 1,108 have been closed.

Incidents:

- May 17, 2010 – There was a non-REE release of diesel fuel from a Severson fueling truck to the road north of and intersecting the dragline road. The driver noticed a spray from the hose reel and stopped the vehicle. The source of the release was a blown gasket at the connection between the hose reel and connecting pipe from the reservoir. The release covered an area of the road approximately 500 feet long and 2 feet wide. An estimated 15 gallons of diesel fuel were released to the road. None reached the water. The fuel was cleaned up with absorbent pads and the affected surface ash/soil was scraped up and disposed of in drums.
- May 21, 2010 – The Severson dredge Adelyn released an estimated ten gallons of bio-degradable hydraulic fluid to the Emory River due to a break in the hydraulic line on the cutterhead. The release occurred at approximate River Mile EM3. Absorbent booms were deployed immediately by the Severson crew and SWS responded to assist in the clean-up. All fluids released were contained and final clean-up was completed.

INFRASTRUCTURE/ASH MANAGEMENT

- Efforts for site maintenance, dust control, and HAZWOPER control continued.
- Ash generated from time-critical activities was removed from the west storage area to the trains.
- Mayes Construction continued installation of the offsite utilities with 67% complete.

ASH DREDGING & PROCESSING

- A total of 56,556 cy of ash was removed from the river this week by Severson. All areas of the river outside of Segment 1 have now been completed. Removal of the ash berm east of Dike 2 began.
- Mechanical dredging north of the site continued this week by Severson and Aquarius Marine. Ash is being taken to the lateral expansion area for storage.
- The 10-inch TVA dredge in the ash pond was redirected to the lateral expansion area for discharge. Ash is being recovered by dipping in a rim ditch fashion in the area.
- Work continued dipping from the rim ditch and sluice trench. Lime treatment at the sluice trench continued this week using Mt. Carmel. Treated ash was hauled directly to ballfield to be loaded on the trains for disposal.
- Efforts continued in the ballfield to move ash to the tracks and to dry the windrows. Much of the ballfield has been emptied.

ASH DISPOSITION

- Loaded and transported 7 unit trains this week.
- Have loaded and transported 240 unit trains for a total of approximately 2,286,600 tons.
- Continued inspection, maintenance, and repair of the rail in the rail yard. The repair work includes replacing ties, 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 responded to outreach calls along the Tennessee and Clinch Rivers. There are patches of moderate cenospheres resulting from the high water flushing cenospheres from the shore.
- Boat crews worked the past weekend cleaning the shoreline along the Tennessee River.
- Three outreach calls came in during the week and have been resolved. The crews worked on cleaning the boom in preparation of removing the boom next week.
- A buoy plan was reviewed and approved by the USCG for installing buoys in the main channel of the Emory River. Buoys will be placed in their original pre-release positions.
- Ash Pond conditions continued to improve. Crews continue to focus on keeping the weir areas clear.

SKIMMER WALL

- Aquarius Marine, LLC, Skimmer Wall debris removal contractor, removed the first of three caissons from the Intake Channel and started the process to remove the second caisson.
- Aquarius Marine, LLC, was awarded the contract to reconstruct the Skimmer Wall.

DIKE REINFORCEMENT

- Dike C Buttress work continued. Civil Projects has crossed the dredge lines and is progressing south.
- Buttress construction is about 32% complete.
- Continued to review Segment B drawings. A meeting was held with KIF Plant Personnel to discuss construction of the buttress within the intake channel.
- Continued to monitor the dikes at Kingston on a daily basis.

ROUTINE MONITORING

Surface Water Sampling

- Routine surface water samples were collected at 10 fixed locations on the Emory, Clinch, and Tennessee Rivers on Monday, May 17th, and Friday, May 24th.
- 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 03/01/2010 and 04/19/2010. Comparisons to the F&AL are performed for dissolved concentrations only.
 - On the Tennessee River, the arsenic was detected in 2 of 16 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 58 of 62 samples at concentrations well below the TDWS and F&AL. Thallium was detected in 2 of 62 samples at concentrations above the Tennessee Water Quality Criteria (TWQC). Selenium was not detected in any sample.
 - On the Emory River, arsenic was detected in 50 of 79 samples with all concentrations less than the TDWS and the F&AL. Lead was detected in 49 of 80 samples with one result exceeding the TDWS. Selenium was detected in three samples at concentrations less than the TDWS and F&AL. Thallium was detected in 9 of 80 samples, with all results exceeding the TWQC.
- 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 continued routinely twice per week at two locations along the Swan Pond Embayment drainage ditches.

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 ug/m³.

- 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

- Monitoring of activity at bird boxes continues.

Non-Routine Sampling

- None to report.

FINAL REMEDIATION

- Action Memorandum for the Non-Time-Critical Removal Action for the Embayment/Dredge Cell was approved by TVA, EPA, and TDEC. Action Memo was released to the public on May 18, 2010.
- A draft of the Removal Action Work Plan is in final review/concurrence.

DREDGE CELL

- TVA, Jacobs, AECOM, TDEC, and EPA continued reviewing Stantec 90% Design Central Dredge Cell Working Platform package.
- Stantec issued 60% design package for the Central Dredge Cell Ash Stacking for review/comments by TVA, Jacobs, and AECOM.
- TVA Civil Projects continued on the Recontouring Central Dredge Subgrade with approximately 25% complete.

EMBAYMENT ASH PROCESS

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

COMMUNICATIONS

Communications

- Posted to Website: Weekly Report and Weekly Area Resident Update, Action Memorandum and EE/CA. Responsiveness Summary, and Roane County Economic Development Foundation Meeting notice.
- Finalized news release, talking points, and related communications materials pertaining to the Action Memorandum for non-time critical work.
- Provided interviews to media outlets regarding the Action Memorandum.
- Prepared ad for publication announcing river opening and lifting of the recreational advisory.
- Prepared direct mail to residents along the Emory River announcing river opening and lifting of the recreational advisory.
- 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.
- Finalized copy for next edition of the Dredge Report.
- Finalized Kingston Ash Recovery Project update column for Roane County News.

Outreach

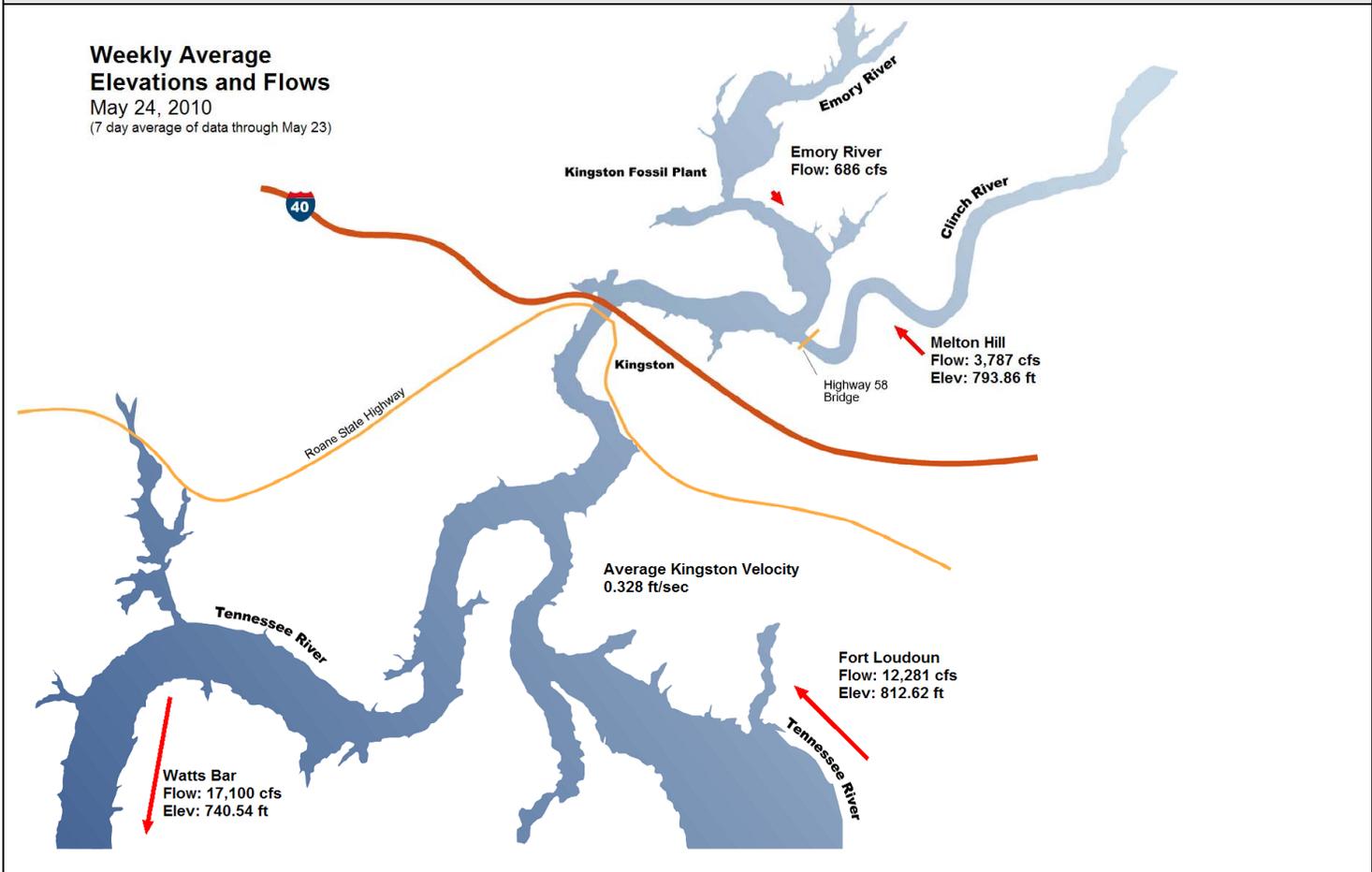
- Provided updates on site activities to the Community Advisory Group.
- Updated Administrative Record with work plans and relevant documents.
- Conducted Public Meeting to discuss Action Memo and EE/CA Responsiveness Summary.
- Continued to respond to calls and visits from residents.
- Updated message boards along Swan Pond Road announcing public meeting.
- Worked on Kingston Ash Recovery Project Site update column for Roane County News.

- Updated site bulletin boards with safety and site information.

Other

- Worked on logo and slogan for celebration marking the end of time critical work.

RIVER OPERATIONS



MEETINGS/CONFERENCE CALLS		
Date	Time	Subject
05/24	0800	Environmental Group Meeting (ICP Conference Room)
05/24	0800	Roane County Eco Development Foundation (Team Room)
05/24	1000	Aquatic Resources Studies (Team Room)
05/24	1200	MACTEC Safety Meeting (Trailer 1 Meeting Room)
05/24	1300	Environmental Staff Meeting (Team Room)
05/24	1400	Schedule Updates (ICP Conference Room)
05/25	0800	QA Meeting (Team Room)
05/25	0930	BCP Meeting (ICP Conference Room)
05/25	0930	Communications (Team Room)
05/25	1000	TVA Communications (Team Room)
05/25	1300	Rules & Regulations Meeting (Team Room)
05/25	1330	Dredge Team Meeting (ICP Conference Room)
05/26	0900	Non-Time-Critical Weekly Meeting (ICP Conference Room)
05/26	1000	Dredge Cell Design Status – Stantec (ICP Conference Room)
05/26	1100	MRC Environmental & Safety Meeting (ICP Conference Room)
05/26	1230	BST (ICP Conference Room)
05/26	1300	Public Pre-Briefing (Old ICP Conference Room)
05/26	1330	Test America Weekly Call (Conference Call)
05/26	1430	BST (Team Room)
05/26	1430	Data Management Meeting (ICP Conference Room)
05/27	1000	Pace Telephone (Conference Call)
05/27	1000	Skimmer Wall (ICP Conference Room)
05/27	1130	HSE Staff Meeting (ICP Conference Room)
05/27	1300	CSMRT (Old ICP Conference Room)
05/27	1400	SOP Meeting (Team Room)
05/28	0900	Jacobs Senior Manager 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: May 17-23, 2010		Field Report	
Safety				Weekly Total	Cumulative Total
Near Misses				1	48
First Aid Incidents				0	34
Recordable Incidents				1	11
Recordable Lost Time Incidents				0	12
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)		949	105,141
Total		Tons of Light Debris		0	959.57
Cenosphere Slurry		Gallons		78,000	13,866,000
Environmental					
Org	Matrix	Samples*	Analyses*	Results*	
TVA	Air - Real-Time	--	--	228,863	
TVA	Air – Fixed	2,178	--	3,102	
TVA	Surface/Utility Water	3,722	32,239	156,003	
TVA	Ground Water (spring and well)	87	995	3,921	
TVA	Ash	78	104	1,689	
TVA	Soil/Sediment	258	422	3,176	
TVA	Biota	1,102	2,522	28,613	
*Week ending May 21, 2010					
Ash Dredging & Excavation				Weekly Total	Cumulative Total
River	Estimated Cubic Yards (including mechanical dredging)			62,096	2,616,996
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			72,200	2,214,400

NOTE: Total dredged from the river has been adjusted to include ongoing survey adjustments and all of Severson (current dredging contractor), TransAsh (prior dredging contractor), mechanical dredged from Severson and Aquarius, and TVA reported hydraulic and mechanical dredging to date.

Ash Loading to Trains - Weekly as of May 24th

