

KINGSTON ASH RECOVERY PROJECT WEEKLY REPORT

February 1-7, 2010

Aerial Image of Emory River Area - 12/01/2009



Date of Photography
12/01/2009
Water Surface Elevation
735.86
Water Surface Elevation is the
Watts Bar Headwater Elevation
Tennessee Valley Authority
E3T - Environmental Resources
Geographic Information & Engineering

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HIGHLIGHTS

- Cumulatively, just over 2,570,100 cubic yards of ash have been removed from the river and east of Dike 2.
- To date 149 trains have been loaded and transported approximately 1,381,900 tons of ash.
- The draft Sampling and Analysis Plan (SAP) is being reviewed.
- Made final revisions on Community Involvement Plan Responsiveness Summary and sent to EPA; began revising CIP based on comments.
- Along with EPA and TDEC, met with the Roane County Community Advisory Group.
- Met with Rockwood officials regarding recently approved Roane County Economic Development Foundation projects.

SAFETY

Program Summary

- Forty (40) site specific HSE orientations conducted for the week, 1,293 to date.
- Thirty-one (31) Safety Observation Reports submitted for the week: 647 to date; 533 of which have been closed.

Injury

- February 5th - TVA employee twisted an ankle when they attempted to get off of a boat. Under investigation.

Non-Recordable Incidents

- February 2nd – Minor damage to a TVA vehicle when a Jacobs' employee backed up and struck a post.
- February 2nd – A CP fuel truck's back passenger tire was torn and the back right side of truck was scratched as the truck clipped a dozer's blade in the east embayment area while allowing another driver to pass around.

INFRASTRUCTURE/ASH MANAGEMENT

- Continued with dust suppression activities, road maintenance, and HAZWOPER controls.
- Just under 6,000 cy of ash were moved east of Dike 2 to a temporary staging area in the Valley portion of Dike D.
- Continued installation of 10" Kingston Utility water line along Church Slough and Hassler Mill Road.
- MACTEC drilling installation of third of six piezometers in dredge cell relic area.

ASH DREDGING & PROCESSING

- Approximately 28,148 cy of ash were removed from the river. The E-Trac system on the new 16-inch dredge was tested. The 14-inch dredge continued to be assembled. Dredging was suspended on Friday for a high water flow event. Dredging remained off during the weekend.
- Effluent from the ash pond dredges were sent to the lateral expansion area and the filter presses. Surveys in the ash pond indicate that the free water volume in the pond has stabilized with the alternate dewatering systems.
- Eleven (11) filter presses were operational throughout the week. The cake consistency and cycle time were within committed levels and the presses are operating as designed.
- Ballfield operations were hampered by the rain this week and much effort was spent on restoring roads.

ASH DISPOSITION

- Loaded and transported 3 unit trains this week.
- Have loaded and transported 149 unit trains for a total of approximately 1,381,900 tons.
- Heavy rains the end of January and again on Friday, February 5th, impacted the loading operations in Kingston. Heavy rains at the landfill in Alabama created flooding conditions that also impacted the unloading operation.
- Continued inspection and maintenance of the rail in the rail yard.
- Continued monitoring moisture content of the ash and putting polymer in rail cars prior to shipping to Alabama.
- Continued construction of rail yard modifications and plant access road.

CENOSPHERE RECOVERY

- Fluctuations in water level has made cleanup more difficult because the debris tends to get trapped on sand bars but the sand bars become difficult to access because of saturated conditions.
- Debris tends to be more small branches and leaves instead of the heavier limbs and trees cleaned out during prior high flow events.
- Replaced boom in the Emory River and reconfigured in an attempt to better collect debris.
- Crews focused on cenosphere and debris collection in the Emory River and along the shoreline in the Kingston Park area.
- Crews continue to monitor the river for accumulations ash, debris and cenospheres.
- Large amounts of cenospheres continued to collect in the Ash Pond as a result of dredging activities. Crews worked to keep the weir areas clean.
- High flows were expected the weekend of February 6th and 7th. Crews monitored the river and plan accordingly.

SKIMMER WALL

- Work on the skimmer wall has been suspended until early spring.

DIKE REINFORCEMENT

- Dike C buttress work continued. Approximately 760 feet of haul road and 430 feet of slope have been completed.
- Material quality has stabilized with a majority of the sand passing the 5% fines requirement. There has not been a problem with the #2 stone since deliveries resumed from Vulcan.
- Civil Projects added a second crew to help increase production.
- Crews have encountered thicker ash deposits along a section of the Dike adjacent to the Rookery. In addition, survey data shows that ash needs to be excavated several feet into the dike. Stantec has reviewed the impacts on the Factor of Safety for excavating into the dike and the models show only a slight decrease in the factor of safety. TVA on site management has instructed the team to remove this additional ash. TVA has asked Stantec to see if it is possible to pre-excavate some of the ash prior to installation of the buttress. Stantec still owes TVA a response.
- 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 1st, and Friday, February 5th. Local rainfall exceeded 1.0" early Friday morning, so the February 5th monitoring coincided with a storm sampling event. In addition, the automated sampler at Emory River Mile 0.5 was activated to collect four samples over the 24-hour period commencing at 0730 on February 5. Observed peak flow of the Emory River occurred at 2330 on February 5th.
- Surface water analytical results are compared to the Tennessee Drinking Water Standard (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 01/11/2010. 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, all arsenic and selenium detects in surface water samples were less than the TDWS and F&AL.
- Daily monitoring of dredge plumes continued. Weekend dredging operations were suspended on Friday, February 5th, due to elevated Emory River flow. 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. Additional samples were collected on Friday, February 5th, triggered by local rainfall >0.5".

Sediment Sampling

- Two TVA environmental vibecore sampling crews have joined the dredging project crew to expedite characterization of remaining ash in the river to optimize dredging. This past week sampling focused on establishing the northern most presence of ash in the Emory River. Data are being incorporated into the grid system.

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. With extended periods of precipitation, 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

- A number of fish fillets were received from Oak Ridge National Laboratory (ORNL). The fillets were prepared from the ORNL-led fall fish sampling campaign. Fillets were shipped to a TVA contract laboratory for homogenization and subsequent split sample preparation and analysis.

Non-Routine Sampling

- No activity to report.

FINAL REMEDIATION

- Sent the draft SAP to TVA for review on Monday, February 1st.
- Sent the initial draft Action Memorandum for the Non-Time-Critical Removal Action for the Embayment/Dredge Cell to TVA for review on Tuesday, February 2nd.
- Prepared draft outlines of the Time-Critical On Scene Coordinator Report and sent to TVA for input on Thursday, February 4th.

DREDGE CELL

- No ash was placed in the test embankment this week due to excessive rains and a wet storage area.

COMMUNICATIONS

Communications

- Posted to website: Weekly Report, Air Monitoring Update, and Weekly Area Resident Update information.
- Prepared newspaper advertisements to publicize the extension of the Emory River closure until May 15th.
- Finalized on Dredge Report for site and plant employees.
- Made final revisions on Community Involvement Plan Responsiveness Summary and sent to EPA; began revising CIP based on comments.
- Continued to handle daily calls from the news media.

Outreach

- Along with EPA and TDEC, met with the Roane County Community Advisory Group.
- Maintained Administrative Record.
- Continued to handle calls and visits from residents.
- Continued to gather comments on various administrative records.

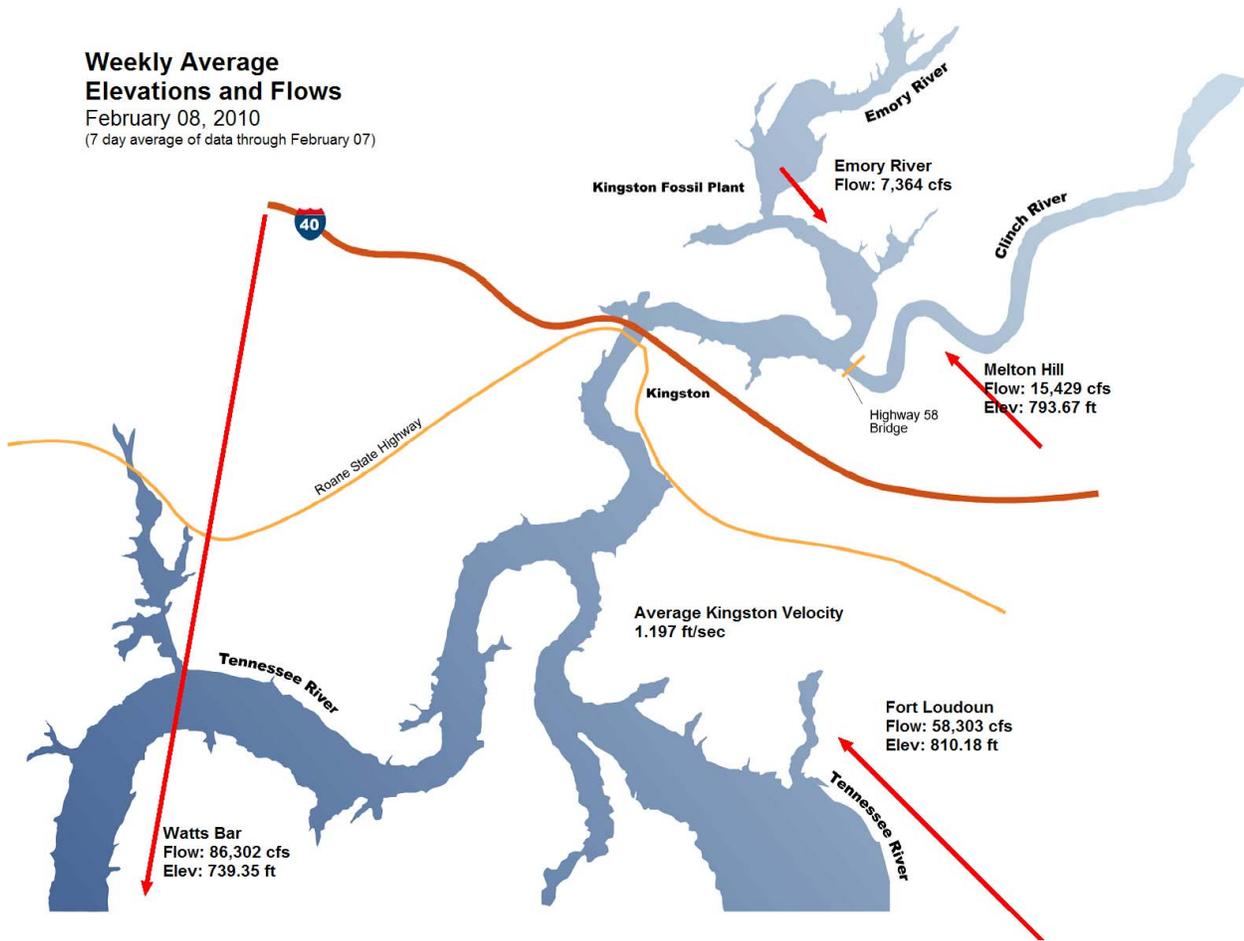
Government/Valley Relations

- Met with Rockwood officials regarding recently approved Roane County Economic Development Foundation projects.

RIVER OPERATIONS

Weekly Average Elevations and Flows

February 08, 2010
(7 day average of data through February 07)



MEETINGS/CONFERENCE CALLS		
Date	Time	Subject
02/08	0730	Environmental Meeting (ICP Conference Room)
02/08	0800	PMP Meeting (Old ICP Conference Room)
02/08	0900	Dike C Buttress Intake Channel (ICP Conference Room)
02/08	1000	Matteson Demob Kickoff (ICP Conference Room)
02/08	1000	Aquatic Resources Studies (Team Room)
02/08	1100	TDEC Communications (Team Room)
02/08	1200	MACTEC Safety Meeting (Trailer 1 Meeting Room)
02/09	0800	PMP Meeting (Old ICP Conference Room)
02/09	0900	Records Management Meeting (Team Room)
02/09	0915	BCP Meeting (ICP Conference Room)
02/09	1000	Project Review Weekly Meeting (ICP Conference Room)
02/09	1000	TVA Weekly Communication Meeting (Old Team Room)
02/09	1330	Dredge Team Meeting (ICP Conference Room)
02/09	1500	QAPP Training (ICP Conference Room)
02/10	0800	PMP Meeting (Old ICP Conference Room)
02/10	0800	Time Critical Weekly Meeting (ICP Conference Room)
02/10	0900	Data Management Meeting (ICP Conference Room)
02/10	1000	Jan Kingston Financial Results (Team Room)
02/10	1100	MRC Environmental & Safety Meeting (ICP Conference Room)
02/10	1330	Test America Weekly Call (Conference Call)
02/11	0730	Environmental Meeting (ICP Conference Room)
02/11	0800	PMP Meeting (Old ICP Conference Room)
02/11	0900	LTD Project Controls (Team Room)
02/11	0900	SPCC Training (ICP Conference Room)
02/11	1000	Pace Telecon (Conference Call)
02/11	1130	HSE Staff Meeting (ICP Conference Room)
02/11	1300	SPCC Training (ICP Conference Room)
02/11	1400	SOP Meeting (Old Team Room)
Daily	0730	Site Safety Orientation (Old ICP Conference Room)
Daily	1600	Planning Meeting (ICP Conference Room)
Daily	1630	Ash Disposal Daily Recap (Team Room)

Kingston Recovery Project		Date: February 1-7, 2010		Field Report	
Safety*				Weekly Total	Cumulative Total
First Aid Incidents				0	29
Recordable Incidents				0	7
Lost Time Incidents				0	5
*Incidents Audited & Reclassified					
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)			786	91,954
Total	Tons of Light Debris			0	959.57
Cenosphere Slurry	Gallons			270,000	11,760,000
Environmental					
Org	Matrix	Samples*	Analyses*	Results*	
TVA	Air - Real-Time	--	--	168,976	
TVA	Air – Fixed	1,584	--	2,088	
TVA	Surface/Utility Water	3,009	25,182	124,445	
TVA	Ground Water (spring and well)	68	753	2,762	
TVA	Ash	78	104	1,689	
TVA	Soil/Sediment	147	309	2,915	
TVA	Biota	632	1,545	15,615	
*Week ending 2/5/10					
Ash Dredging & Excavation				Weekly Total	Cumulative Total
River	Estimated Cubic Yards thru February 7, 2010 (see Note)			28,148	2,004,116
Ash Excavation (east of Dike 2)	Estimated Cubic Yards **Modified to an in-place volume			6,000	566,029**
Ash Excavation (other)	Estimated Cubic Yards **Modified to an in-place volume			0	73,000**
Ash Disposal	Estimated Tons			26,660	1,355,240

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 February 7th

