

# KINGSTON ASH RECOVERY PROJECT

## MONTHLY REPORT

November 2011

### Aerial Image of Kingston Ash Slide (10/26/2011)



Date of imagery: 10/26/2011

Filename: ImageOnly\_20111026\_8x11.pdf

Tennessee Valley Authority  
Geographic Information & Engineering

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#### **SAFETY**

- Six (6) site-specific HSE orientations were conducted during November – 2,048 year to date. Zero (0) site-specific refresher courses were conducted during the month of November - 356 year to date.
- Fifty (50) safety observation reports (SORs) were submitted during November – 2,524 year to date; 2,519 are closed.
- The last recordable incident occurred on December 22, 2010, and became a recordable on December 28, 2010.

#### **INFRASTRUCTURE / ASH MANAGEMENT**

- Efforts for site maintenance, dust control, and HAZWOPER control continued.
- Continued recovering cenospheres from the onsite ponds.
- Completed building new MAP area.

#### **ASH SLURRY & POND TSS CONTROL**

- The total suspended solids (TSS) sampling was performed throughout the ash slurry system. The TSS of the sluice trench discharge averaged 66.6 mg/L, the main ash pond effluent TSS averaged 30.6 and the stilling pond effluent averaged 9.9 for the month.
- The sluice trench effluent and ash pond effluent polymer addition rates were raised twice during the month in response to storm events and lateral expansion construction activities. The sluice trench polymer addition remained offline during November.
- The new ash pond outlet structure construction was awarded to civil projects and the work package was finalized. Field work is scheduled to start the first week of December.
- TVA civil projects dragline operated the last 2 days of November and recovered 342 cubic yards of bottom ash.

#### **ASH PROCESSING / BALLFIELD PREPARATION**

- Civil projects did not perform any moisture reduction processing of ash removed from the sluice trench to ready ash for placement in the Interim Ash Storage Area (IASA) in November.
- Civil projects did not perform any plant ash placement in November. The plant is completing its conversion to dry ash and placement of ash is now contracted to Trans Ash. The total ash stacked in the IASA from survey of the IASA remains at 70,203 cubic yards.
- The KIF plant was offline for most of the month. The plant returned operation on November 28 and was operating three units at month's end.

#### **DIKE REINFORCEMENT**

- The draft on-scene coordinator (OSC) report due December 13, 2011, remains on schedule.
- The diffuser flow test was rescheduled for the week of January 9, 2012.

#### **ROUTINE MONITORING**

##### **Surface Water Sampling**

- There were rainfall events greater than 0.5" that triggered storm flow sampling in Swan Pond Embayment for November 3, 21, 22, and 27.
- Continued routine weekly surface water sampling at the stilling pond and Swan Pond embayment. To date all stilling pond results have shown compliance with the site's NPDES permit.
- Automated monitoring stations (Hydrolabs) are online continuously monitoring pH at three locations in the settling ditch system. The real-time pH results from the settling ditch system are monitored daily and used to make acid dosing decisions to control the pH of the outflow.

- Continued daily TSS monitoring at the sluice trench, ash pond, and stilling pond. Water quality for the month was good with no TSS measurements at the stilling pond approaching permit levels.
- Collected additional TSS measurements in conjunction with the drain pipe removal activities at the ash pond and the plant coming back online. The additional TSS monitoring was performed to measure the impacts to the TSS in the system and provide assurance that the drain pipe removal in the ash pond was not going to trigger permit exceedances. TSS results remained low enough during the work to avoid work stoppage.

**Air Sampling**

- All air monitoring results for November from the PM2.5 and PM10 TVA air samplers were below the current Ambient Air Monitoring Plan (AAMP) action levels.

**Data Management**

- Technical memoranda for benthic invertebrates, fish (addendum), and bulk sediment and pore water are in process. Completion of the fish technical memoranda is projected by December 9, 2011.

**Biota Sampling**

- Raccoon trapping and sampling were completed during the week of November 20, 2011.
- Fall fish community survey and the fall sampling for health and bioaccumulation studies were completed in November. Results are expected in February 2012.

**Non-Routine Sampling**

- Collected soil sample to characterize suspected diesel spill near the Berkshire house, and the draft results were forwarded to the compliance specialist to ensure the material is properly dispositioned.
- Completed concurrence sampling in the north embayment. Future concurrence sampling will be conducted in the middle embayment.
- Continued additional set of soil borings in the middle embayment to determine depth of ash.
- Continued sample collection and on-site moisture testing in support of dredge cell and ballfield operations.

**DREDGE CELL**

- Continued PWS construction of Segment 1 at the transition slope in the northwest corner of the dredge cell and Segment 1B in the eastern end of the Segment. Work locations are being spread out to avoid areas where subgrade has become wet (see sketch).
- Continued ash and spoils moisture processing in the central dredge cell and relic area.
- Stantec submitted the 90% removal design package RDP-0113-J for the north wall, Segment 8, which was transmitted to Regulators for review.
- Stantec submitted the 90% removal design package RDP-0113-H for the North and Central Dredge Cell (Cells 2 & 3) closure, which was transmitted to Regulators for review.

**LATERAL EXPANSION**

- Continued stacking ash in the lateral expansion as conditions allowed.
- Stantec delivered the 30% removal design package RDP-0114-C for closure of the Lateral Expansion area.
- Continued construction of a “buttress” in the ash pond channel east of the lateral expansion ash stacking

**RIVER EE / CA AND BERA**

- Completed the Aquatic Plant Evaluation Technical Memorandum (of field work).
- Delivered the draft evaluation of reptiles (turtles) for TVA team review.
- Continued evaluation of nature and extent.

## **EMBAYMENT RESTORATION AND RECREATION AREA DEVELOPMENT**

- Met with the Roane County Recreation Advisory Board.
- Prepared a sketch of depressions and mounds in the north embayment to be installed before the water rises in the embayment.
- Prepared a sketch of building slabs to remain in Lakeshore Park area.

## **NORTH EMBAYMENT**

- Completed confirmation sampling and reporting for verifying areas are clean of ash deposits.
- Continued writing initial sections of the EE/CA report.
- Preparing final concurrence document for submission to EPA and TDEC.

## **MIDDLE EMBAYMENT**

- Continued bulk excavation, work west to east.

## **TVA PROPERTY DEMOLITION**

- Continued abatement activities on Swan Pond Road and Lakeshore Drive.
- Continued working demolition activities on Swan Pond Road and Swan Pond Circle Road.
- Activities have slowed due to heavy rain.

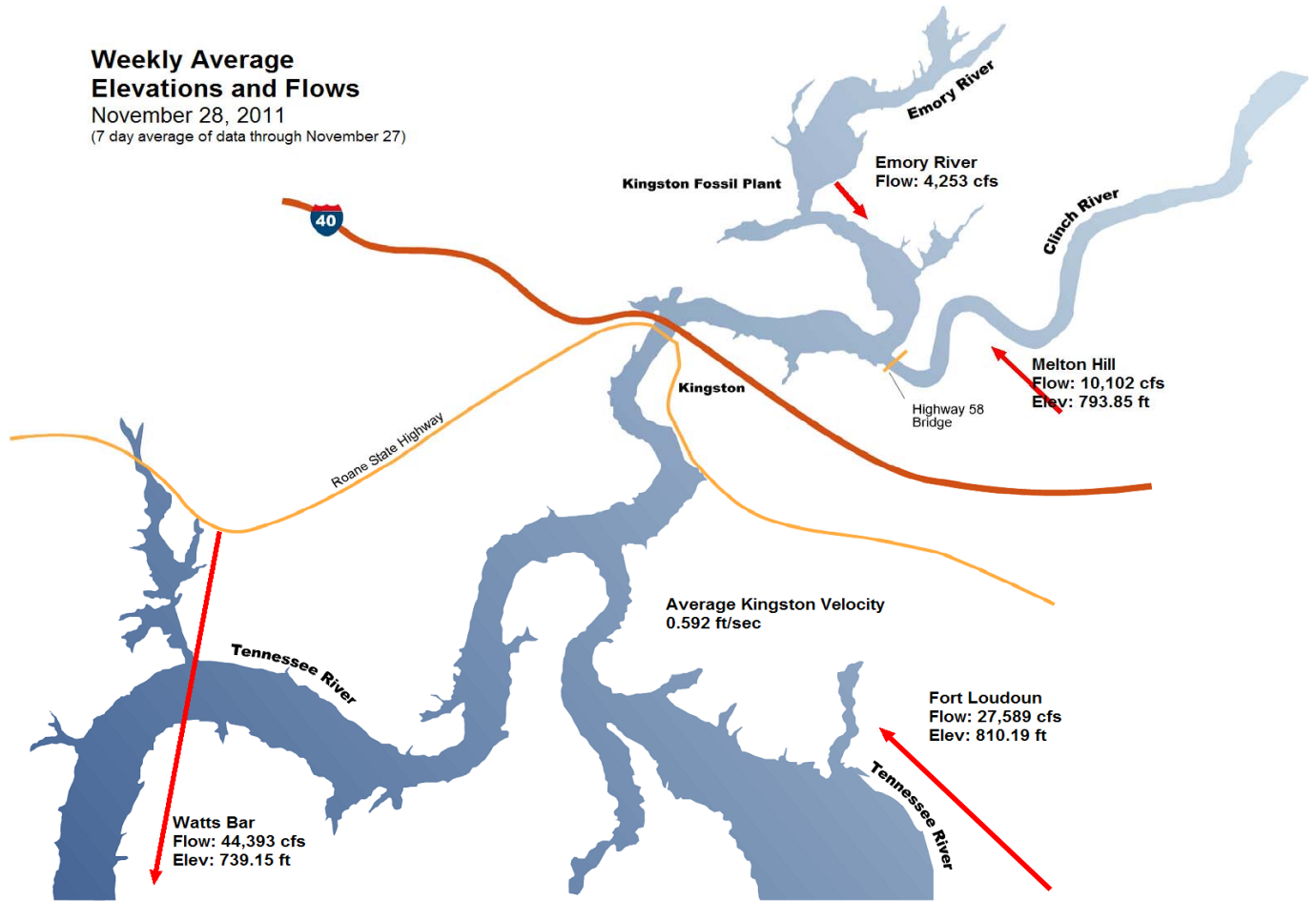
## **COMMUNICATIONS**

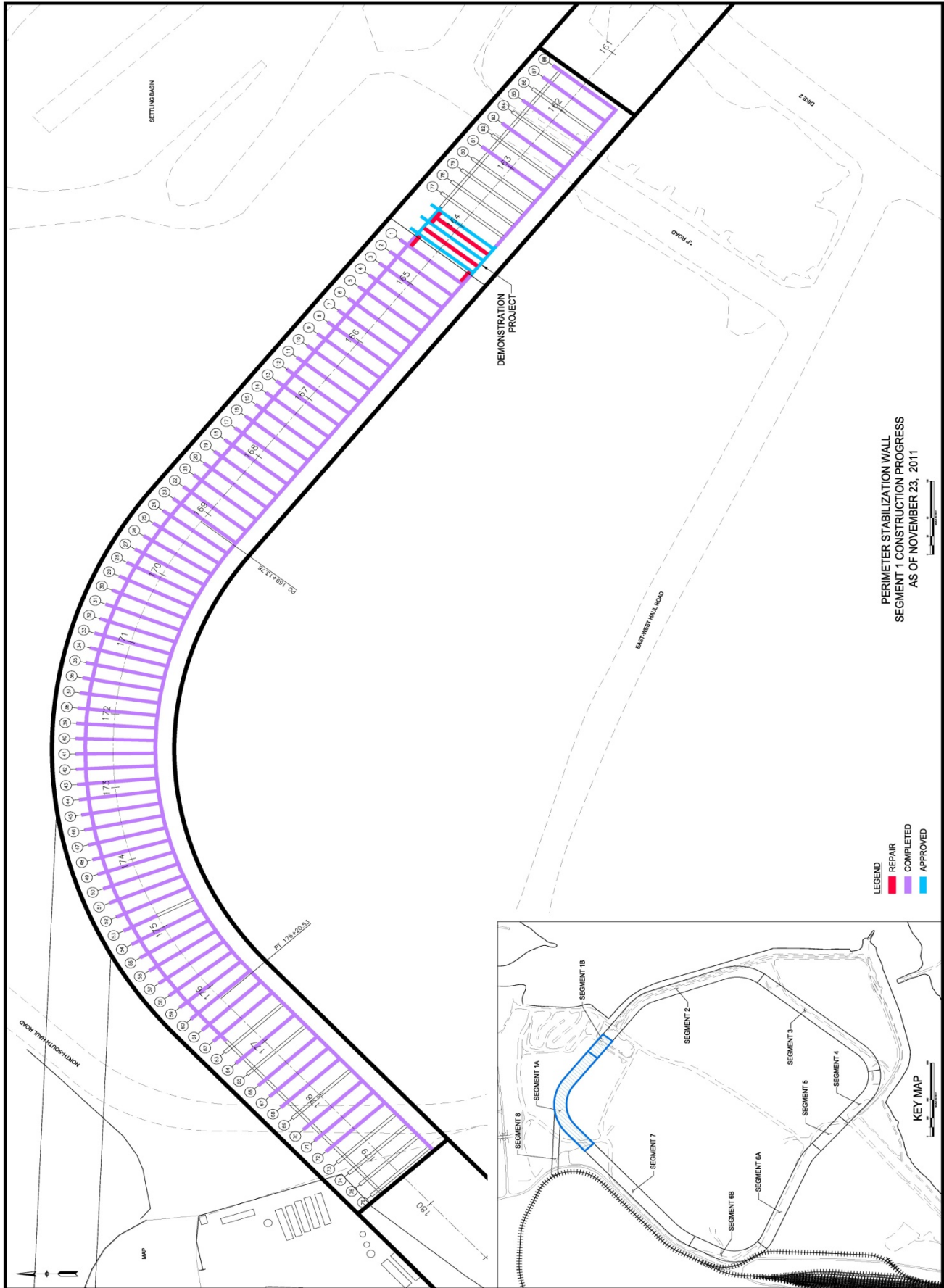
- Added Weekly Dike C reports and weekly area resident updates to Kingston Ash Recovery website.
- Met with the Community Advisory Group (CAG) at the bi-monthly meeting to update them on site activities.
- Sent weekly updates to the CAG, public officials and members of the public who have signed up to receive weekly emails.
- Updated administrative record with work plans and relevant documents.
- Continued to respond to calls and visits from residents.
- Updated site bulletin boards.
- Facilitated a meeting between the Roane County CAG and the planning team for the embayment restoration project.
- Developed full-page photo page for the Roane County News to run in December illustrating progress of clean-up on the project.
- Worked on setting up December 8 public meeting to be held at the Roane County High School.

# RIVER OPERATIONS

## Weekly Average Elevations and Flows

November 28, 2011  
(7 day average of data through November 27)



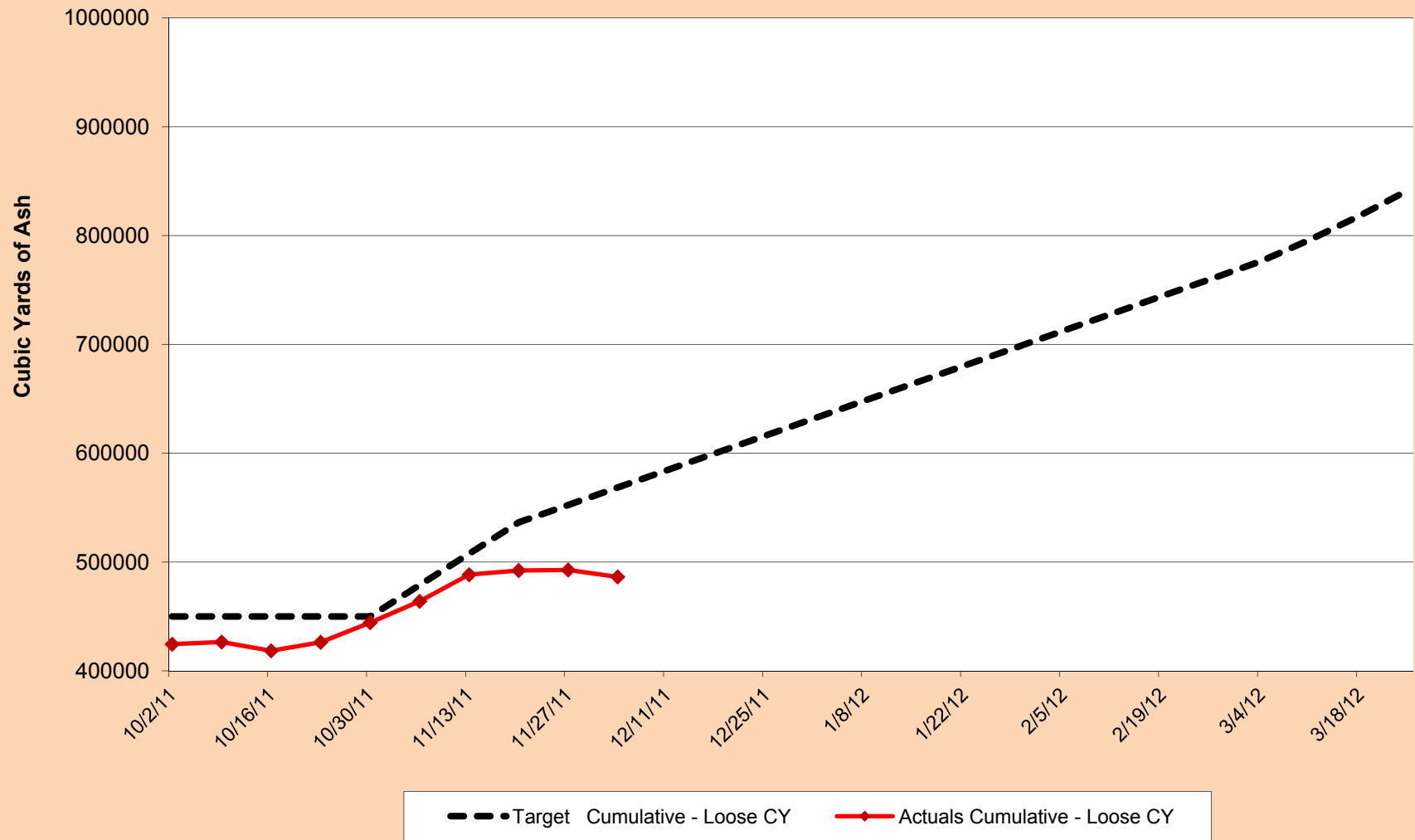


Kingston Ash Recovery Project		November 2011		Field Report
Safety		Monthly Total	FY – Cumulative Total	
Near Misses		0	2	
First Aid Incidents		0	15	
Recordable Incidents		0	2	
Recordable Lost Time Incidents		0	0	
Environmental	Matrix	Samples	Analyses	Results
Organization - TVA	Air – Real Time (Final)	--	--	267,188
Organization - TVA	Air – Fixed (as of 9/25/11)	5,704	--	8,212
Organization - TVA	Surface / Utility Water	5,472	46,977	247,215
Organization - TVA	Groundwater (spring & well)	215	2,174	12,940
Organization - TVA	Ash	756	1,333	9,973
Organization - TVA	Soil / Sediment	940	1,923	14,776
Organization - TVA	Biota	4,143	9,384	110,780

Work Description	Period Work Performed (CYIP)	PTD Work Performed (CYIP)
<b>Ash Removal / Excavation</b>		
Total Removed from Middle Embayment	(4,508)	374,559
Total Removed from North Embayment	-	868,265
Total Removed from Settling Basins / Dike 2	-	9,756
<b>Excavated Total</b>	<b>(4,508)</b>	<b>1,252,580</b>
Work Description	Period Work Performed (CCY)	PTD Work Performed (CCY)
<b>Placement</b>		
Total Placed in Dredge Cell	(3,947)	820,666
Total Placed in Lateral Expansion	2,480	484,041
Total Placed in Ash Pond	-	16,855
<b>Placed Total</b>	<b>(1,467)</b>	<b>1,321,561</b>
Work Description	Period Work Performed (CCY)	PTD Work Performed (CCY)
<b>Storage Handling</b>		
Total Removed from Lateral Expansion	-	5,179
Total Removed from Dredge Cell	-	214,587
Total Removed from Ballfield	2,386	305,989
<b>Removed from Storage Total</b>	<b>2,386</b>	<b>525,755</b>
<b>Net Removed to(from) Ballfield Storage</b>	<b>(2,386)</b>	<b>(116,674)</b>

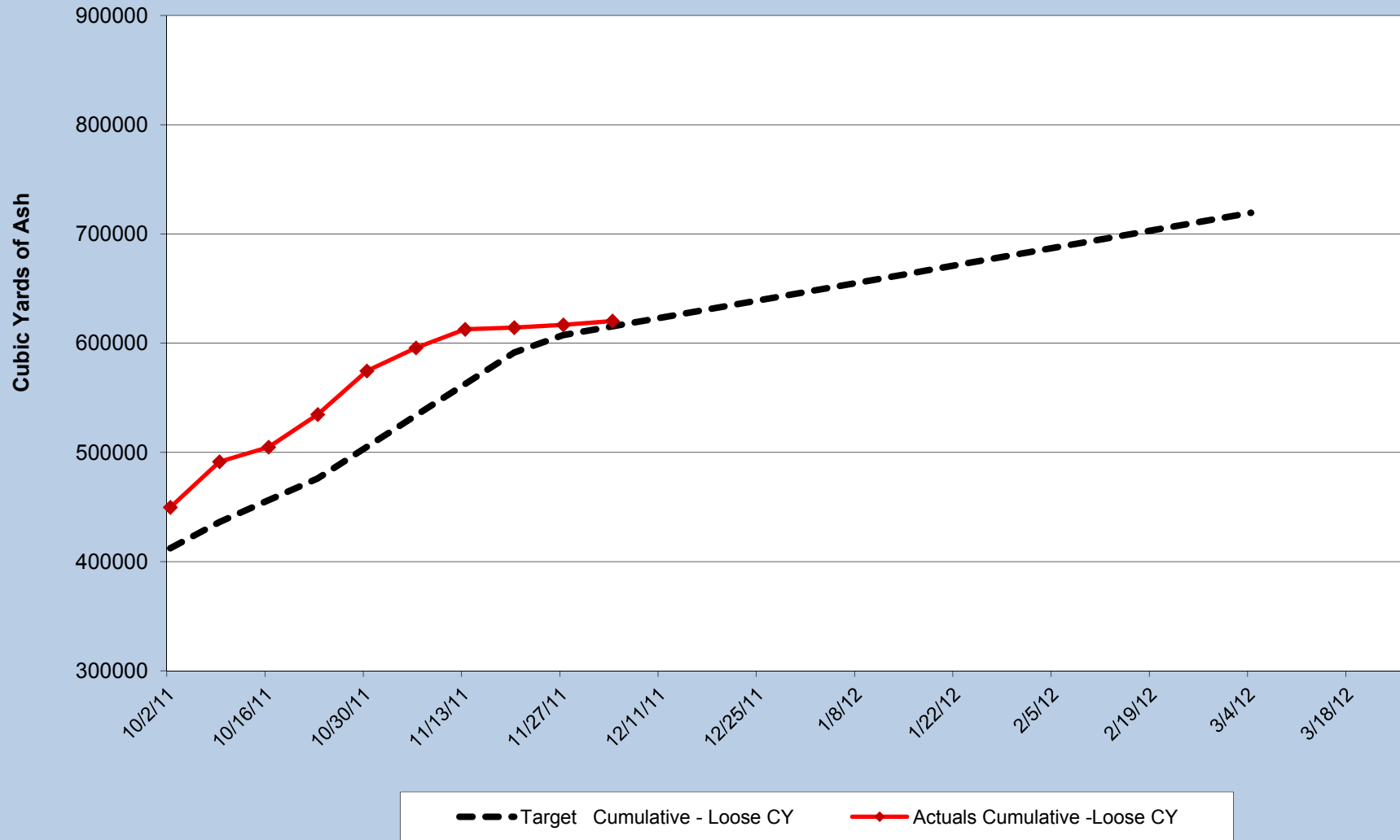
For period ending November 30, 2011

### Ash Excavation from Middle Embayment - Weekly as of December 4





### Ash Stacking in Lateral Expansion - Weekly as of December 4



**Perimeter Wall Stabilization Segment 1A & 1B -  
Weekly as of December 4**

