

KINGSTON ASH RECOVERY PROJECT MONTHLY REPORT April 2012

Aerial Image of Kingston Ash Slide (03/26/2012)



Date of imagery: 03/26/2012

Filename: ImageOnly_20120326_8x11

Tennessee Valley Authority
Geographic Information & Engineering

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KINGSTON ASH RECOVERY PROJECT

MONTHLY REPORT

April 2012

SAFETY
<ul style="list-style-type: none"> • Thirty-three (33) individuals attended site-specific health, safety and environment (HSE) orientations during April – 2,154 year to date. Zero (0) site-specific refresher courses were conducted during the month of April - 356 year to date. • Fifty-eight (58) safety observation reports (SORs) were submitted during April – 2,799 year to date; 2,798 are closed. • The last recordable incident occurred on February 13, 2012 and became a recordable on February 23, 2012.
INFRASTRUCTURE / ASH MANAGEMENT
<ul style="list-style-type: none"> • Efforts for site maintenance, dust control, and HAZWOPER control continued. • Continued recovering cenospheres from the onsite ponds.
ASH SLURRY AND POND TOTAL SUSPENDED SOLIDS (TSS) CONTROL
<ul style="list-style-type: none"> • Daily total suspended solids (TSS) sampling and pH monitoring were performed throughout the ash slurry system. The TSS of the sluice trench discharge averaged 33.5 mg/L, the main ash pond effluent TSS averaged 41.4 and the stilling pond effluent averaged 12.8 for April. • The sluice trench effluent and ash pond effluent polymer addition rates were adjusted based on TSS levels during April. • KIF plant started the month and test operated each unit during the month. At the end of April, the plant was operating 8 units and no water issues were encountered.
PLANT ASH STORAGE / INTERIM ASH STORAGE AREA (BALLFIELD)
<ul style="list-style-type: none"> • Trans Ash resumed placement of compacted dry fly ash during the month. Geosyntec provided quality control and assurance during April. • The Kingston Fossil Plant (KIF) plant produced 8,027 tons of ash in April. • Ballfield photos from the silo cameras were provided to Geosyntec for their construction record.
CENOSPHERE CONTROL ACTIVITIES
<ul style="list-style-type: none"> • Daily pond inspections were performed for all ponds. Skimmer pumping from near outlet to cenosphere collection zones was carried out on all three ponds on Mondays, Thursdays, and Fridays. Booms were adjusted for operation of the new ash pond outlet. • Collection of cenospheres by hydro-vacuum truck was carried out during April with a total of eight (8) loads captured.
ROUTINE MONITORING
<p>Surface Water Sampling</p> <ul style="list-style-type: none"> • There was a rainfall event greater than 0.5-inches on April 5, 2012 that triggered storm flow sampling in Swan Pond embayment • Continued routine weekly surface water sampling at the stilling pond and Swan Pond embayment. All monthly stilling pond results received to date have shown compliance with the outfall National Pollutant Discharge Elimination System (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, Agri-Drains and stilling pond.

Air Sampling

- All air monitoring results for April from the PM2.5 and TVA air samplers were below the current ambient air monitoring plan (AAMP) action levels.

Data Management

- Provided April surface water and air monitoring results to the EPA.
- The bulk sediment bioassay and pore water technical memorandum was issued to TVA for regulatory submittal.
- Completed revisions to Surface Water Monitoring Plan and expect regulatory concurrence and to start reduced sampling scope in May 2012.

Biota Sampling

- Virginia Tech initiated tree swallow and turtle sampling and processing and are expected to continue into summer 2012.
- Completed Canadian geese egg sampling in April 2012
- Preparing for benthic invertebrate and fish health studies scheduled to begin in May 2012.

Non-Routine Sampling

- Continued sample collection and on-site moisture testing in support of dredge cell and ballfield operations.
- Collected oil drum samples for waste characterization analyses.
- Finished collecting soil boring samples in the Gupton borrow area for metals and nutrient analysis.
- Continued sampling support for middle embayment ash removal.

DREDGE CELL

- Geo-Con continued construction of PWS wall in Segment 7 and completed construction of the PWS wall in Segment 8.
- Geo-Con continued coring holes and jet grouting in Segment 1 for repairs of cold joints.
- Ash stacking continued in the north dredge cell as conditions became favorable.
- Civil Projects continued panel construction of the rock buttress outboard of the PWS wall.
- S&ME began pumping from well points in PWS Segment 7 and installed piezometers in PWS Segment 2 working platform.
- Civil Projects began placing rock to reinforce the working platform for Segment 2.
- Stantec submitted revised 90% design for the lateral expansion closure design package.
- Stantec submitted draft plan for testing curing time of 22% slag mix for cold joints.
- Stantec submitted draft plan for testing core samples in lieu of grab samples.

LATERAL EXPANSION

- Restrictions remain that limit stacking to a maximum of 1 foot per day.
- Stacking continued in the lateral expansion using a mixture of lime-treated and untreated ash; the last lime-treated ash was placed April 4, 2012.
- Wet ash and spoils were placed in the ash pond in preparation of the subgrade prior to stacking. Ash pond water levels were pumped down to facilitate material placement.

RIVER ENGINEERING EVALUATION / COST ANALYSIS (EE/CA) AND BASELINE ECOLOGICAL RISK ASSESSMENT (BERA)

- Jacobs completed preparation of the internal draft EE/CA.
- USACE WES continued sediment transport modeling to define 30-year transport simulations.
- Arcadis submitted the draft final BERA for TVA senior management review.

EMBAYMENT RESTORATION AND RECREATION AREA DEVELOPMENT

- Jacobs completed preparation of the 60% design package. TVA and Jacobs then attended a meeting to discuss review comment on the 60% design package.
- TVA sent out a Request for Statement of Qualifications to numerous firms to determine their interest in constructing the facilities in which they only received a couple letters of interest. As a result, TVA revised contracting strategy for the Lakeshore Recreation Area and for the embayment restoration.

MIDDLE EMBAYMENT

- Ash removal from the middle embayment was performed during the month and the excavation target was exceeded.
- Sampling of native sediments under the Segment 1-A toe buttress road was carried out to document removal of all ash from the road footprint.

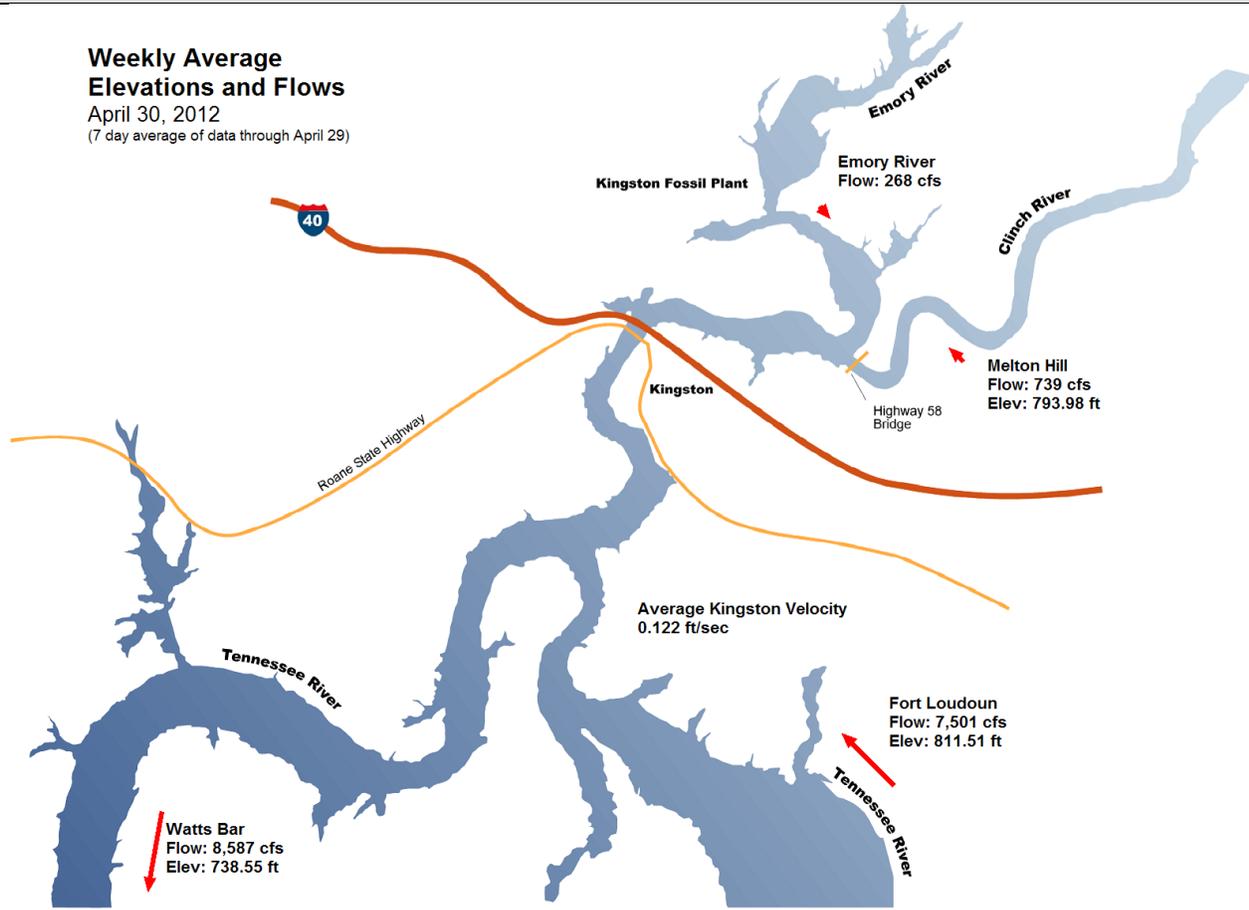
COMMUNICATIONS

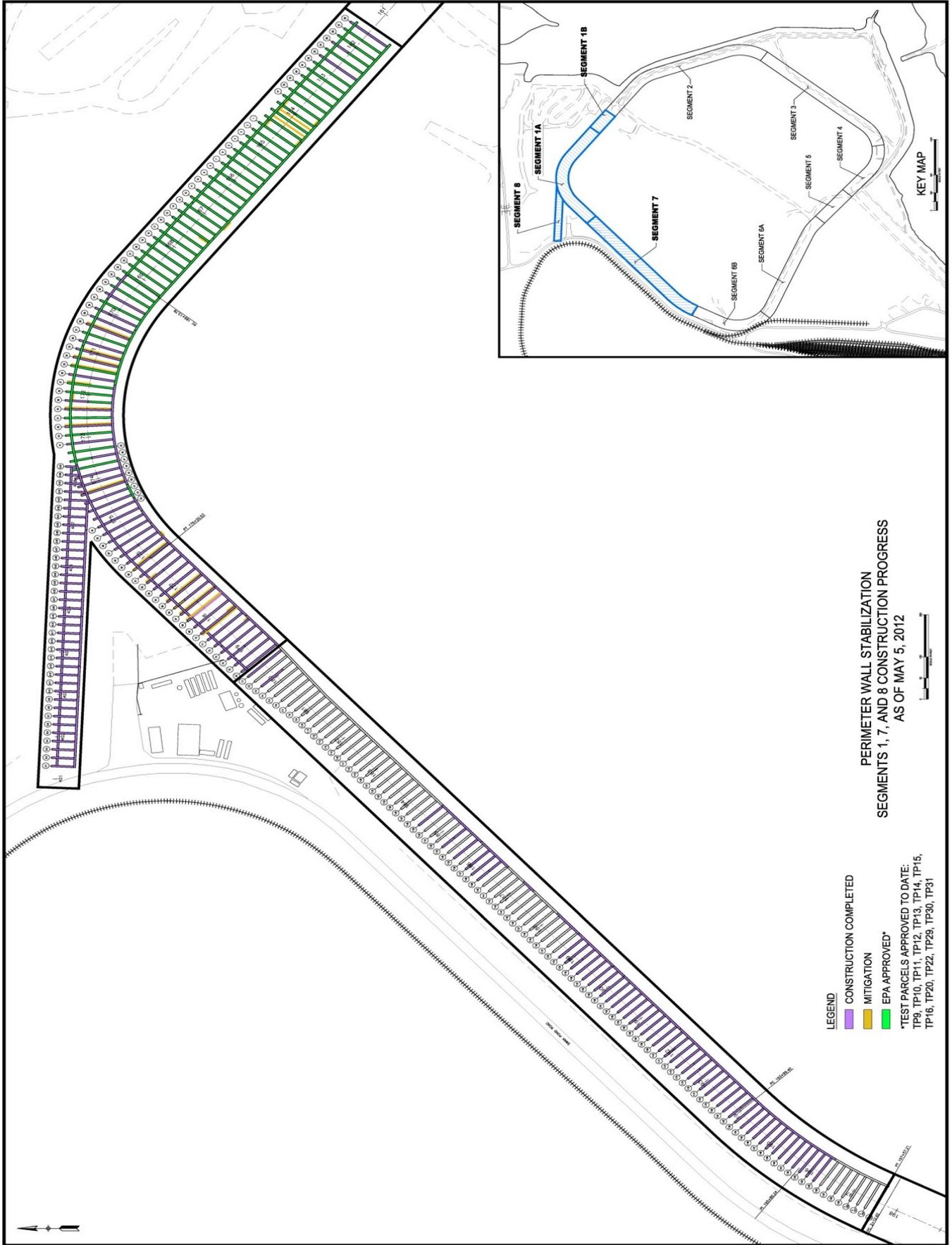
- Added weekly area resident updates to Kingston Ash Recovery website.
- Sent weekly updates to the Community Advisory Group (CAG), public officials and members of the public who have signed up to receive weekly emails.
- Updated administrative record with work plans and relevant documents.
- Continued to respond to calls from residents.
- Updated site bulletin boards.
- The second and third of six public workshops to discuss the upcoming Engineering Evaluation/Cost Analysis (EE/CA) were held April 4, and 19, 2012, at Roane State Community College. The workshops were well attended.
- Emily Reynolds and Katie Kline met with University of Kentucky representatives about TVA's immediate and continuing communication and community relations responses to the spill.
- An information kiosk was installed at the Swan Pond Road overlook for the general public to view the site and keep up with the progress.
- Compiled, printed and distributed an April edition of the *Inside the Cell* newsletter for site and plant personnel.

RIVER OPERATIONS

Weekly Average Elevations and Flows

April 30, 2012
(7 day average of data through April 29)



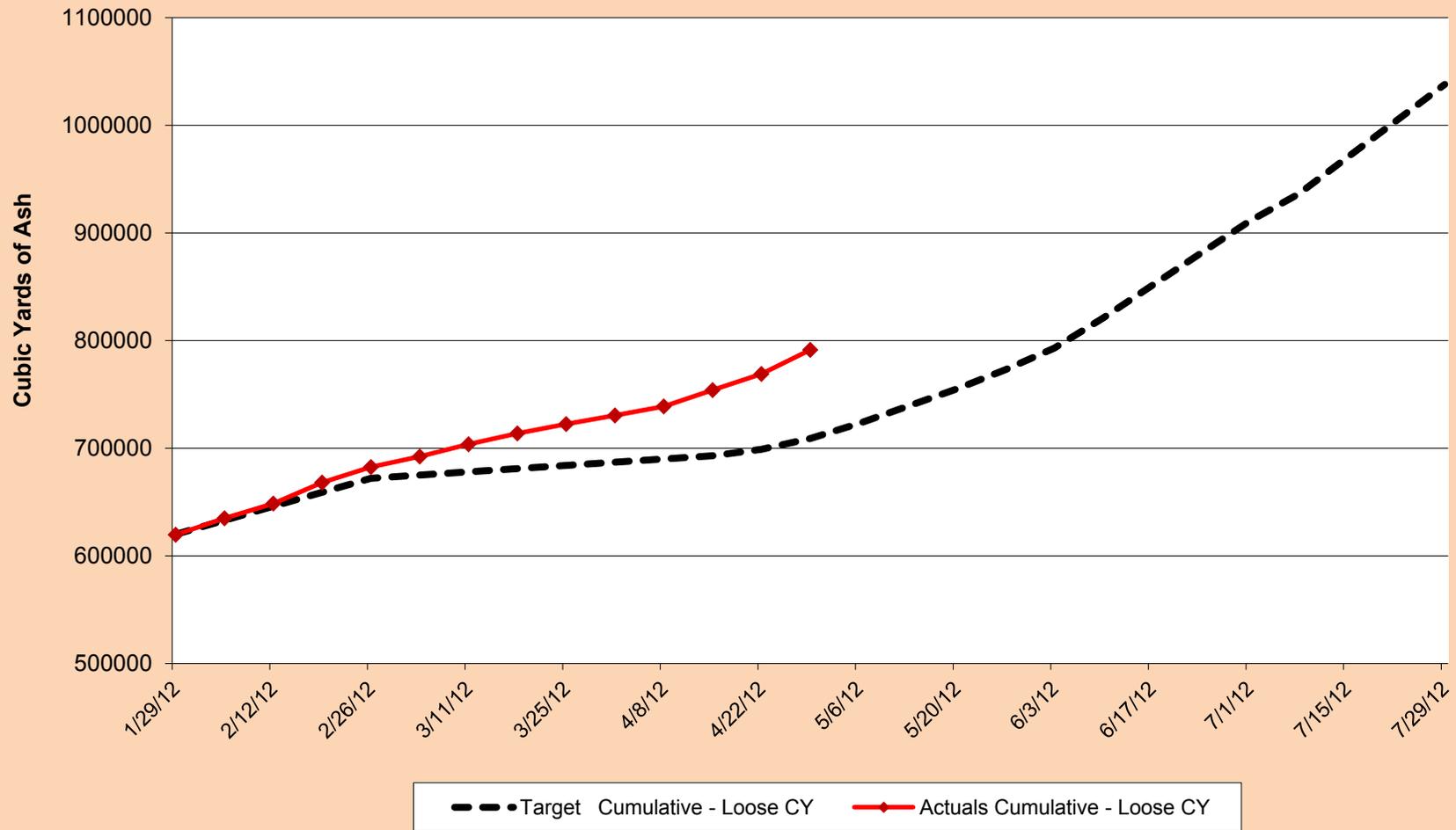


Kingston Ash Recovery Project		April 2012		Field Report
Safety		Monthly Total	FY – Cumulative Total	
Near Misses		0	0	
First Aid Incidents		2	10	
Recordable Incidents		0	1	
Recordable Lost Time Incidents		0	0	
Environmental	Matrix	Samples	Analyses	Results
Organization - TVA	Surface / Utility Water	5,631	47,901	259,627
Organization - TVA	Groundwater (spring & well)	248	2,570	15,101
Organization - TVA	Ash	756	1,333	9,973
Organization - TVA	Soil / Sediment	1,171	2,267	16,933
Organization - TVA	Biota	4,737	10,919	123,680

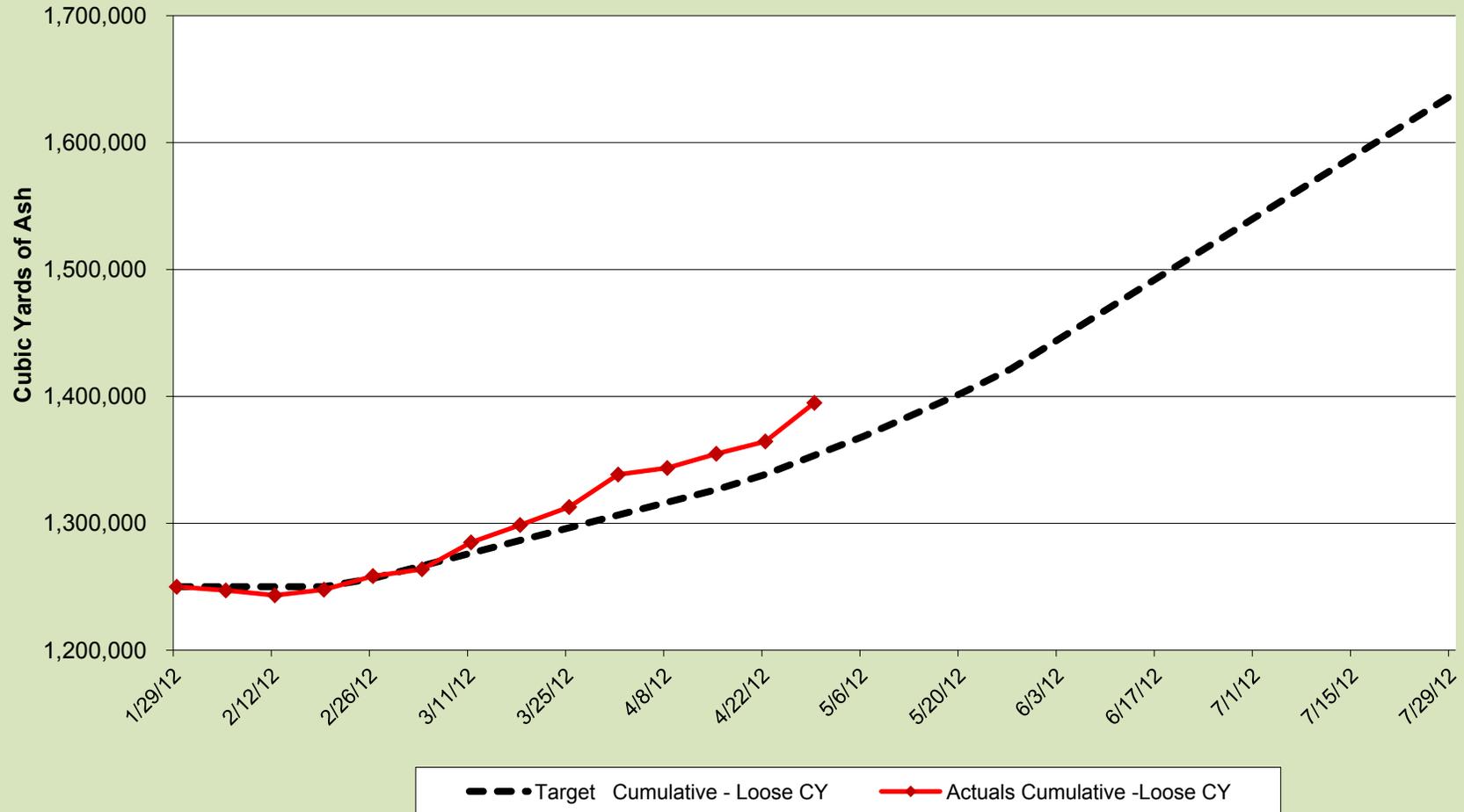
Work Description	Period Work Performed (CYIP)	PTD Work Performed (CYIP)
Ash Removal / Excavation		
Total Removed from Middle Embayment	43,206	571,938
Total Removed from North Embayment	-	1,010,322
Total Removed from Settling Basins / Dike 2	1,860	21,429
Excavated Total	45,748	1,606,230
Work Description	Period Work Performed (CCY)	PTD Work Performed (CCY)
Placement		
Total Placed in Dredge Cell	46,937	867,470
Total Placed in Lateral Expansion	22,933	547,518
Total Placed in Ash Pond	30,935	278,042
Placed Total	100,804	1,693,031
Work Description	Period Work Performed (CCY)	PTD Work Performed (CCY)
Storage Handling		
Total Removed from Lateral Expansion	671	8,033
Total Removed from Dredge Cell	66,477	331,231
Total Removed from Ballfield	15,130	409,887
Removed from Storage Total	82,278	749,151
Net Removed to(from) Ballfield Storage	(3,775)	(131,426)

For period ending April 30, 2012.

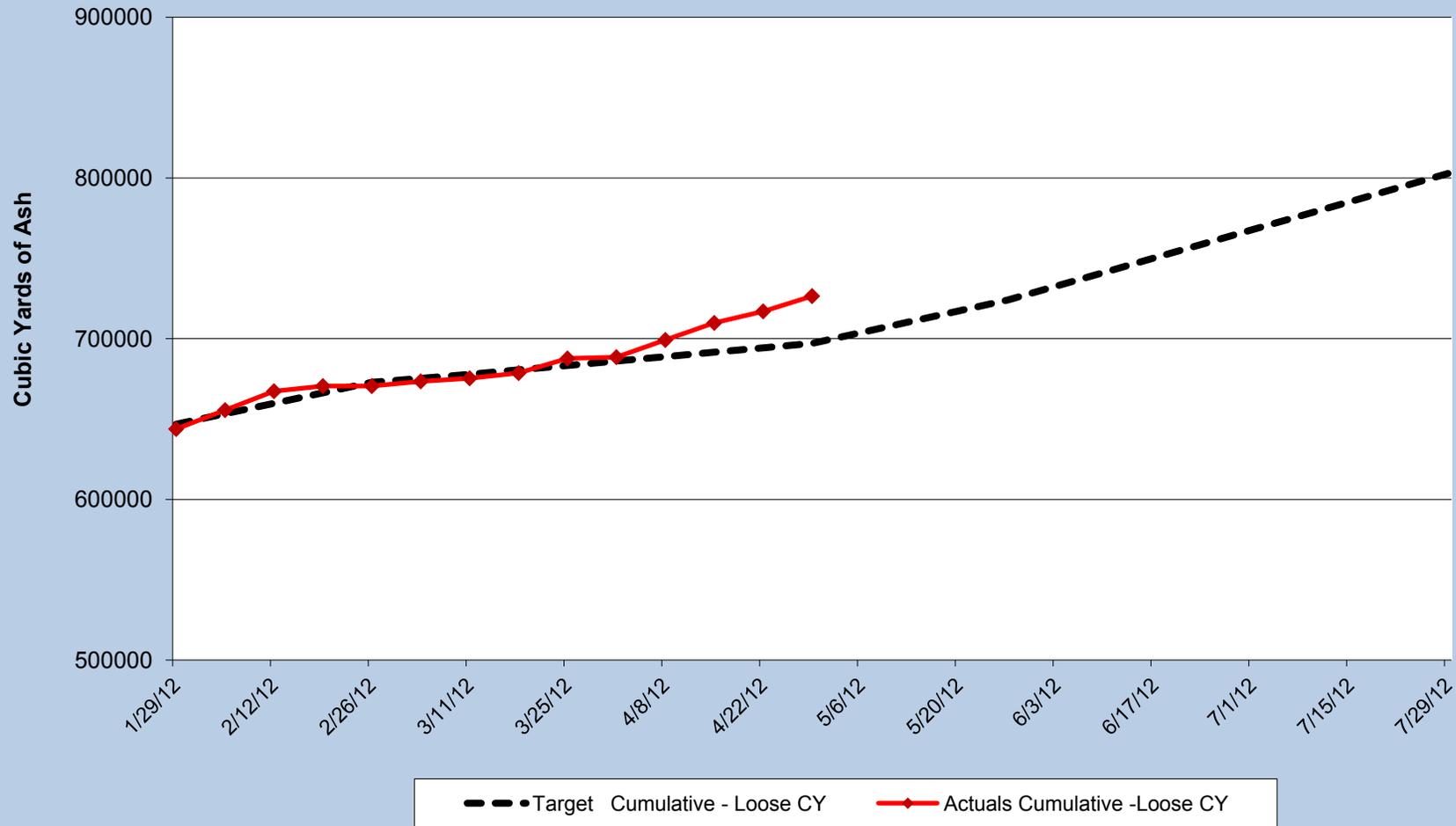
Ash Excavation from Middle Embayment Weekly as of April 29, 2012



Ash Stacking in Dredge Cell Weekly as of April 29, 2012



Ash Stacking in Lateral Expansion Weekly as of April 29, 2012



**Perimeter Wall Stabilization Segment 1A,1B,8 & 7
Weekly as of April 29, 2012**

