

2016 ECR Plan Status Update Report Quarterly Report – Update #21 October 29, 2021

Executive Summary:

General

This report covers LG&E and KU's ("Companies") progress on the 2016 Environmental Cost Recovery ("ECR") Plan through the third quarter of 2021.

The overall 2016 ECR Plan safety performance through the third quarter of 2021 remains excellent with a year-to-date OSHA Recordable Incident Rate of 0.0 and an inception-to-date OSHA Recordable Incident Rate of 0.43, compared to the industry average of 3.2.

The total 2016 ECR Plan projected costs have increased from \$949.6 million (net) last quarter to \$979.0 million (net)¹, compared to the filed total of \$996.4 million as provided in Case Nos. 2016-00026, 2016-00027, and 2017-00483. Total spend to date has increased from \$842.8 million (net) last quarter to \$860.7 million (net) through September 30, 2021. The primary drivers of the increase was to account for the post-Covid award of the closure contract for Trimble County's CCR Impoundment Closures which were higher than originally estimated pre-Covid. Labor and material cost increases, along with scope refinement are captured in the lump sum award for Tetra Tech.

CCR Compliance (CCR Rule and State CCR Pond Closures)

Safety performance through the third quarter is excellent with a year-to-date OSHA Recordable Incident Rate of 0.0 and an inception-to-date Recordable Incident Rate of 0.43, compared to an industry average Recordable Incident Rate of 3.2.

The total projected costs for the Coal Combustion Residual ("CCR") Closure Program have increased from \$919.5 million (net) forecast last quarter to \$948.8 million (net). Total spend to date through September 30, 2021 has increased from \$812.6 million (net) last quarter to \$830.5 million (net).

The remaining engineering activities primarily consist of corrections for "as-built" field changes during construction on the projects completed or under construction. Remaining procurement activities are associated with contract maintenance of all awarded contracts through completion of the work and warranty periods.

In compliance with the U.S. Environmental Protection Agency's ("EPA") final closure deadline of April 11, 2021, the Companies have initiated closure of all unlined CCR surface impoundments. While the large

¹ Co-Owners of the Trimble County plant: Illinois Municipal Electric Agency (IMEA) and Indiana Municipal Power Agency (IMPA) are responsible for 25%. IMEA owns 12.12% and IMPA owns 12.88%. Co-owner shares are not included in the costs provided in this report.

scale of the various closure processes will take time to complete, all of LG&E and KU's former CCR surface impoundments have ceased receiving CCRs for disposal and other process streams have been successfully re-routed, diverted, or otherwise modified so that the closed units no longer receive any other materials.

Although LG&E and KU have already initiated closure for all CCR impoundments, Parts A & B of the CCR Rule allowed alternative closure schedules for unlined CCR impoundments. Several utilities submitted applications directly to the EPA for extending the closure dates for their unlined impoundments. Review of these applications has obligated the EPA to perform a holistic evaluation of CCR compliance for the submitting entities. This process has taken significant EPA resources, resulting in delays and necessitating a shifting of its priorities. When coupled with EPA Executive Management changes, the resulting outcome is that planned rulemaking actions have been neglected. These efforts continue to be identified as "high priority" by the EPA but it is unlikely that rulemaking efforts relating to legacy impoundments and finalization of a federal CCR Rule permitting program will move forward until at least early 2022. The future of other potential rulemakings is similarly nebulous.

The Companies believe that pending and longer-term actions related to the CCR Rule have limited potential to change the Companies' plans.

Single-party control of the executive and legislative branches in Washington has continuing potential to result in legislation and/or policies that are increasingly restrictive to fossil fuels and CCRs. The Companies continue to actively follow these types of developments, while moving forward to complete closure of all CCR impoundments, as we continue to comply with the CCR Rule.

CCR Impoundment Closures

- Ghent – Tetra Tech's ("TT") Phase II and III scope (construction of the South Cooling Pond, closure of Ash Treatment Basin ["ATB"] #1, and closure of ATB #2) is in closure as of January 9, 2020. The cap-in-place closure of ATB #1 and the clean closure of the South Gypsum Stack and Secondary Pond have been completed per CCR Rule requirements. TT continues grading activities and installation of fabric formed concrete for construction of the South Cooling Pond. Work to date on ATB #2 is progressing to plan with regrading of the in-place CCR material, hauling of CCR material from the Gypsum Stack, Coal Combustion Residual Treatment area, as well as filter cake from the Process Water System ("PWS"), and installation of the synthetic liner system over areas of ATB #2 that have achieved final grade. Overall, TT continues to progress the Ghent projects very well with no compliance issues forecasted.
- E.W. Brown – Thalle Construction ("Thalle") impoundment closure activities are nearly complete. Thalle completed the installation of the closure system on the impoundment, including the grass seeding of the soil layer of the cap system. The final major item to be completed during the fourth quarter of 2021 is the dewatering of the remaining interstitial water (below the liner cap system) through the use of deep wells. Once complete, the wells will be decommissioned along with the chemical dewatering treatment system. The construction of a walking trail and the installation of

pollinators and native grasses in the soil borrow area continued during the quarter. Pending normal weather, completion is expected during the fourth quarter of 2021.

- Green River – Project completed in the second quarter of 2020. Working on project warranty items to address minor issues identified after the CCR facilities were capped in place.
- Mill Creek – TT achieved final completion of the Main Ash Pond closure during the third quarter of 2021. The cap-in-place closure of the Main Ash Pond has been completed per CCR Rule requirements. TT will be working on project close-out activities to address warranty items identified after the CCR facilities were capped in place.
- Pineville – Project completed in the second quarter of 2020. Working on project warranty items to address minor issues identified after the CCR facilities were capped in place.
- Trimble County – The cap-in-place closure of the Bottom Ash Pond (BAP) and clean closure of the Gypsum Storage Pond (GSP) was awarded to Tetra Tech (TT). Work during the third quarter of 2021 included Tetra Tech mobilizing to the site, geotechnical investigations, hauling of CCR material to the BAP for beneficial use, and Tetra Tech began excavating and grading activities within the BAP.
- Tyrone – Project completed in the second quarter of 2020. Working on project close-out activities to address minor issues identified after the CCR facilities were capped in place.

The CCR Impoundment Closure Program is on schedule to be completed on or before the CCR Rule regulatory deadlines.² To ensure the Companies' CCR Compliance projects comply with the regulations and to share best practices and lessons learned, the Companies continue to hold program-wide meetings with internal project management teams and affected stations to provide opportunities for all parties to deliver updates and to ensure the contractors are providing similar deliverables across the projects.

Process Water System Projects

- Trimble County – Project has been placed into Commercial Operation.
- Mill Creek – Project has been placed into Commercial Operation.
- Ghent – Project has been placed into Commercial Operation.
- E.W. Brown – Project has been placed into Commercial Operation.

² EPA has committed to revising various portions of the CCR Rule. While changes to the CCR Rule have been proposed, EPA has indicated that there are still other additional proposals under development. Many factors have substantially extended EPA's anticipated timeline for revisions beyond their original schedule. However, the Companies' strategies continue to be resilient and CCR Rule changes under consideration should not force any major re-evaluations of our plans. LG&E and KU remain well positioned to comply with the evolving CCR Rule. The Companies will continue to closely monitor revisions to the CCR Rule and to ongoing litigation and will continue to update the Commission as it relates to issues that may affect construction schedules and activities.

Schedules

CCR Rule and State CCR Impoundment Closures

Project	Project #	EPC Status³	Planned/ Actual In-Service Date⁴
E.W. Brown Aux Pond	KU Project 42	Awarded July 9, 2018	December 2021
E.W. Brown Main Ash Pond (Deleted Phase III of Landfill)	KU Project 36	Completed	Closure Completed 4Q 2020
Ghent ATB #1	KU Project 40	Awarded September 7, 2018	December 2021
Ghent ATB #2	KU Project 40	Awarded May 22, 2020	December 2024
Ghent Gypsum Stack	KU Project 40	Amended Sept. 7, 2018	Clean Closure Completed 3Q 2021
Green River Main Pond	KU Project 39	Completed	Cap and Closure Completed 2Q 2019
Green River ATB #2	KU Project 39	Completed	Cap and Closure Completed 3Q 2019
Green River SO ₂ Pond	KU Project 39	Completed	Clean Closure Completed 2Q 2019
Mill Creek Ash Pond	LG&E Project 29	Awarded April 4, 2019	Cap and Closure Completed 3Q 2021
Mill Creek Clearwell Pond	LG&E Project 29	Completed	Clean Closure Completed & New Pond in Service 4Q 2018
Mill Creek Construction Runoff Pond	LG&E Project 29	Completed	Clean Closure Completed 2Q 2018 and New Pond in Service 3Q 2018
Mill Creek Emergency Pond	LG&E Project 29	Completed	Clean Closure Completed and area structurally backfilled in 2017
Mill Creek Dead Storage Pond	LG&E Project 29	Completed	Clean Closure Completed and area structurally backfilled 3Q 2019
Pineville Ash Pond	KU Project 39	Completed	Cap and Closure Completed 3Q 2019
Trimble County Bottom Ash Pond	KU Project 41, LG&E Project 30	Awarded August 13, 2021	October 2024
Trimble County Gypsum Storage Pond	KU Project 41, LG&E Project 30	Awarded August 13, 2021	October 2023
Tyrone Ash Pond	KU Project 39	Completed	Cap and Closure Completed 3Q 2019

³ Engineering, Procurement, and Construction (“EPC”) Status – the red font signifies actuals.

⁴ The Planned In-Service Dates reflect the executed EPCs – the red font signifies actuals. Ghent ATB #2 and Trimble County BAP was changed to 2024 to reflect a mid-point between the original rule and the proposed rule changes being litigated. Trimble County GSP completion date reflects completion of the work; however, the removal of CCR is planned to be completed in 2022.

PWS Projects

<u>Project</u>	<u>Project #</u>	<u>EPC Status</u>	<u>Planned/ Actual In-Service Date</u> ⁴
E.W. Brown PWS	KU Project 42	Completed	Placed in Service May 2020
Ghent PWS	KU Project 40	Completed	Placed in Service April 2020
Mill Creek PWS	LG&E Project 29	Completed	Placed in Service October 2019
Trimble County PWS	KU Project 41, LG&E Project 30	Completed	Placed in Service October 2019

E.W. Brown Landfill Phase II

On October 12, 2021, KU received from the KDWM a letter of acceptance of the CPR and issued the permit. Phase II has been placed into service.

Quarterly Status Update:

Federal CCR Rule Closure Projects:

KU Project 40 – Ghent (GH) Station CCR Rule Compliance Construction and New PWS

KU continues to hold weekly and monthly project update meetings. Tetra Tech’s (“TT”) Phase II and III scope (construction of the South Cooling Pond, closure of Ash Treatment Basin [“ATB”] #1, and closure of ATB #2) is in closure as of January 9, 2020. The cap-in-place closure of ATB #1 and the clean closure of the South Gypsum Stack and Secondary Pond have been completed per CCR Rule requirements. TT continues grading activities and installation of fabric formed concrete for construction of the South Cooling Pond. Work to date on ATB #2 is progressing to plan with regrading of the in-place CCR material, hauling of CCR material from the Gypsum Stack, Coal Combustion Residual Treatment area, as well as filter cake from the Process Water System (“PWS”), and installation of the synthetic liner system over areas of ATB #2 that have achieved final grade. Overall, TT continues to progress the Ghent projects very well with no compliance issues forecasted.

The PWS project has been completed and the EPC contractor was granted Final Completion. Working on project close-out activities to address minor issues identified during execution of the PWS project.



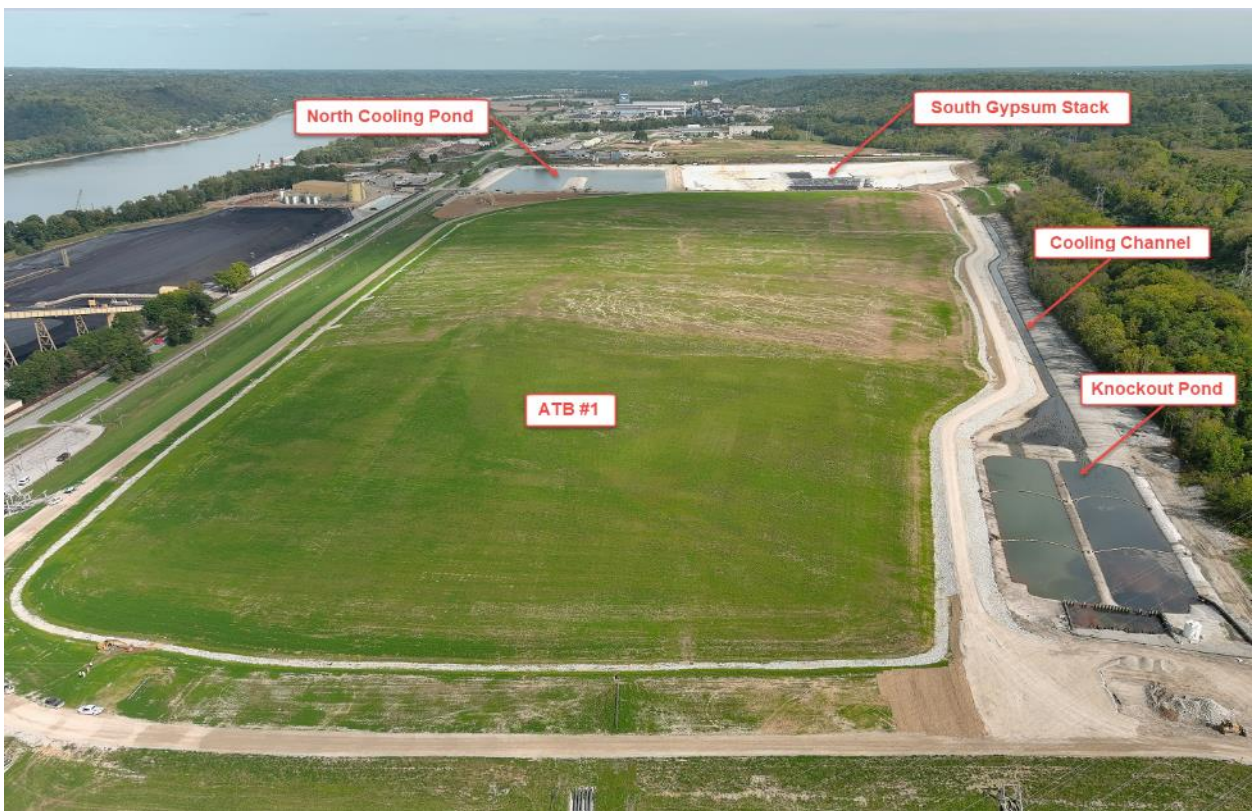
Ghent ATB #1 – Looking West – June 2021



Ghent ATB #1 – Looking West – October 2021



Ghent ATB #1 and Cooling Channel – Looking East – June 2021



Ghent ATB #1 and Cooling Channel – Looking East – October 2021

KU Project 41 and LG&E Project 30⁵ – Trimble County (TC) Station CCR Rule Compliance Construction and New PWS

The Companies received the agreed order from the Kentucky Division of Water (“KDOW”) in April 2021. The cap-in-place closure of the Bottom Ash Pond (BAP) and clean closure of the Gypsum Storage Pond (“GSP”) was awarded to Tetra Tech (“TT”). Work during the third quarter of 2021 included submittal of pre-construction documents, mobilization, geotechnical investigations, hauling of CCR material to the BAP for beneficial use, and initial excavation and grading activities within the BAP.

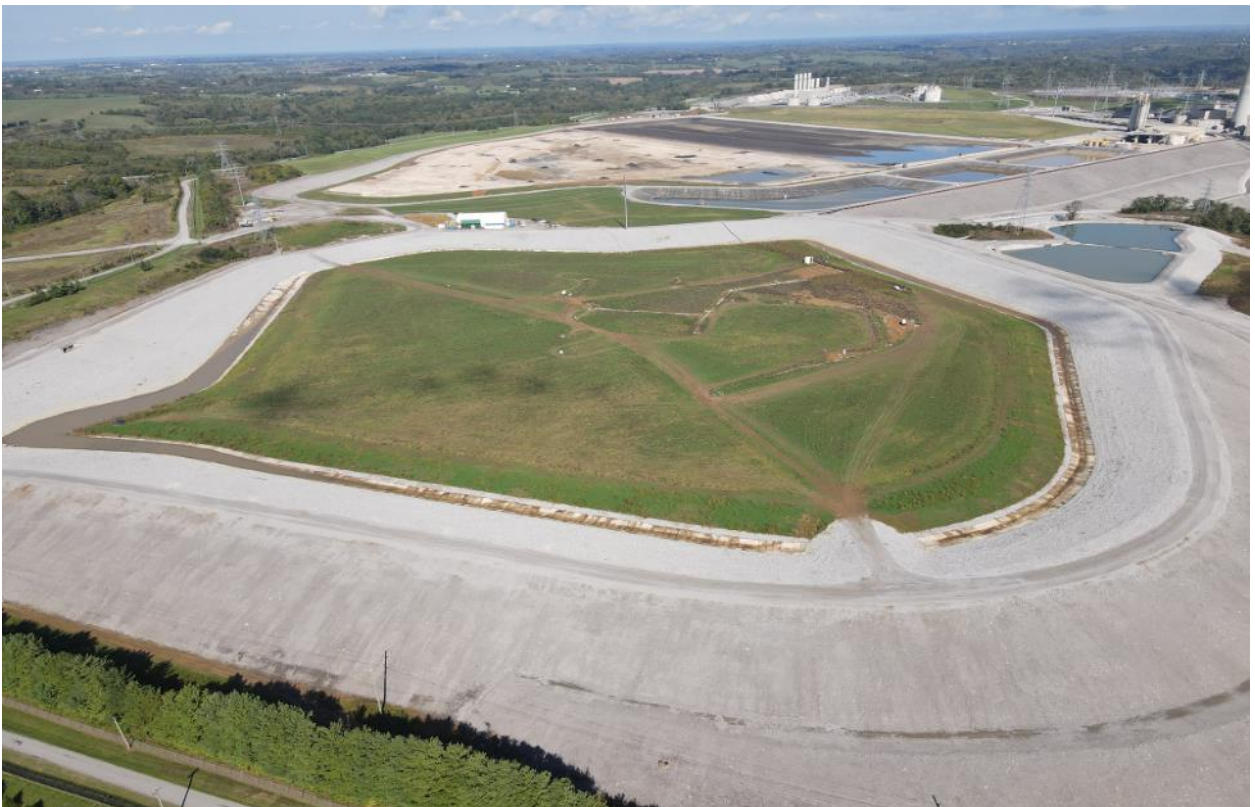
KU Project 42 – E.W. Brown (BR) Station CCR Rule Compliance Construction and New PWS

E.W. Brown – Thalle Construction (“Thalle”) impoundment closure activities are nearly complete. Thalle completed the installation of the closure system on the impoundment, including the grass seeding of the soil layer of the cap system. The final major item to be completed during the fourth quarter of 2021 is the dewatering of the remaining interstitial water (below the liner cap system) through the use of deep wells. Once complete, the wells will be decommissioned along with the chemical dewatering treatment system. The construction of a walking trail and the installation of pollinators and native grasses in the soil borrow area continued during the quarter. Pending normal weather, completion is expected during the fourth quarter of 2021.

⁵ KU and LG&E’s net costs are split 48% and 52%, respectively.



E.W. Brown Aux Pond – June 2021



E.W. Brown Aux Pond – October 2021



E.W. Brown Landfill Phase II and Closure – June 2021



E.W. Brown Landfill Phase II and Closure – October 2021



LG&E Project 29 – Mill Creek (MC) Station CCR Rule Compliance Construction and New PWS

Tetra Tech (“TT”) achieved final completion of the Main Ash Pond closure during the third quarter of 2021. TT will be working on project warranty items to address minor issues identified after the CCR facilities were capped in place.



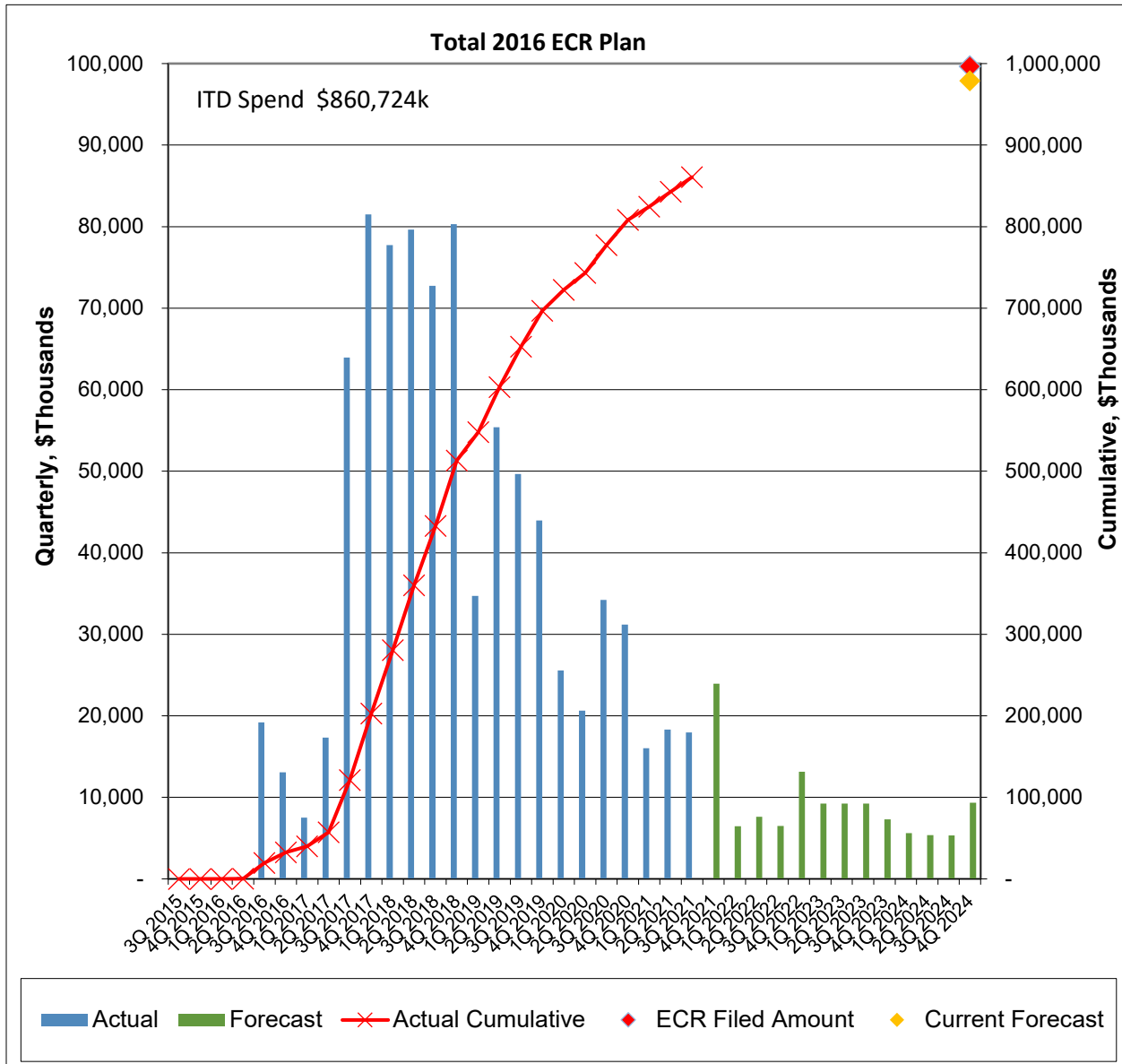
Mill Creek Main Ash Pond Closure – July 2021



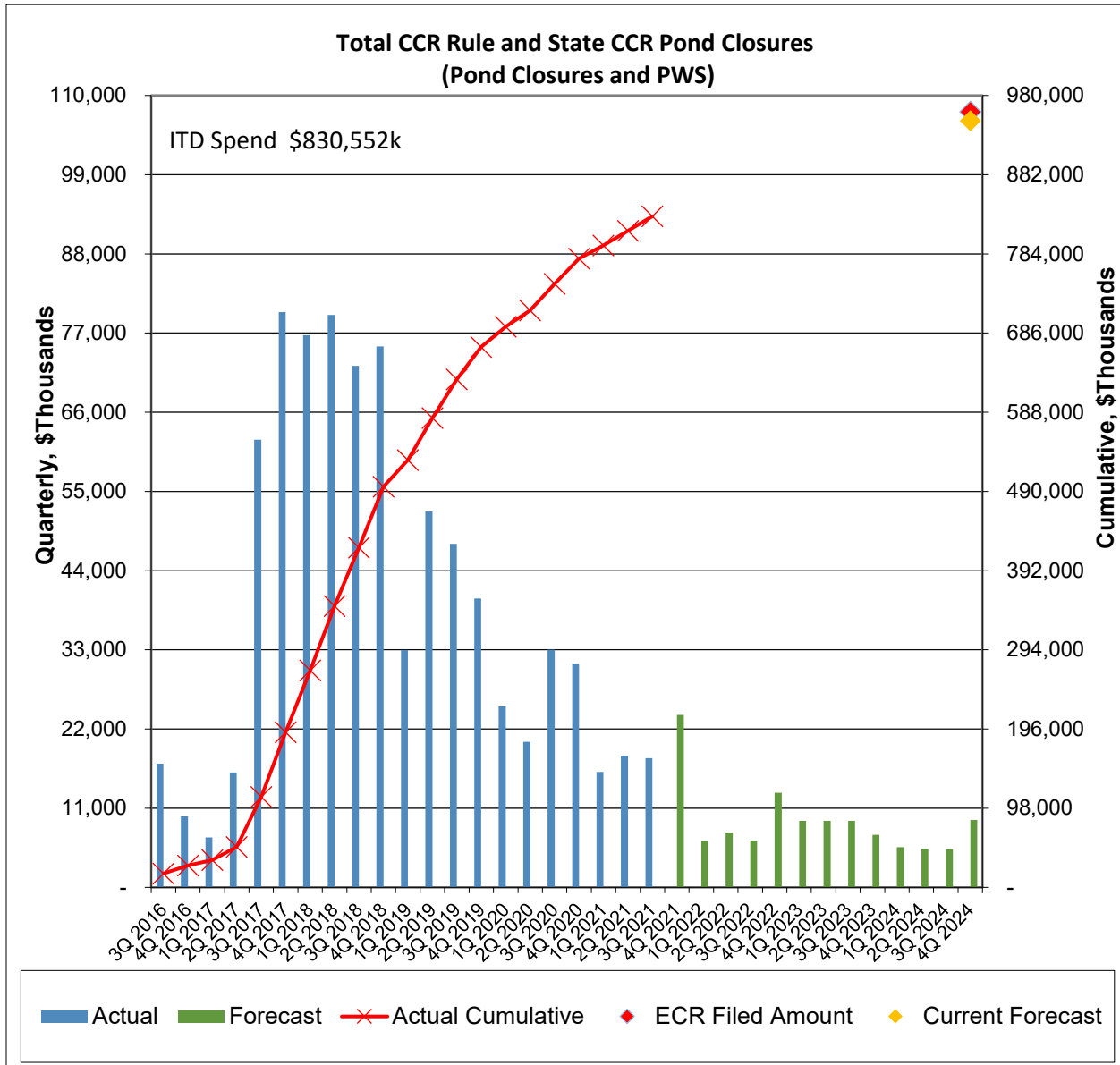
Mill Creek Main Ash Pond Closure – October 2021

Financials:

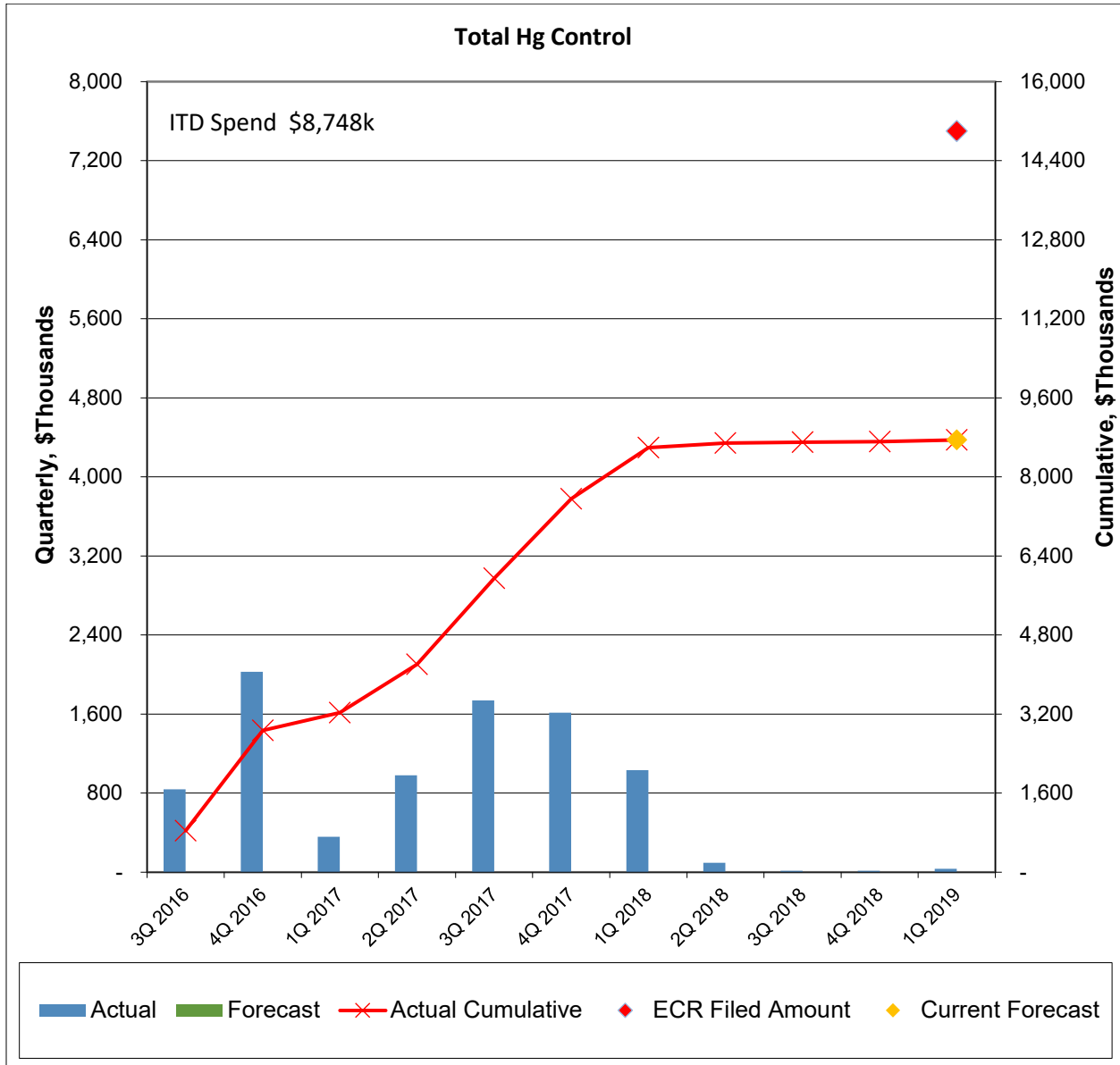
The total 2016 ECR Plan forecasted costs have increased from \$949.6 million (net) last quarter to \$979.0 million (net), as explained above. Total spend through September 30, 2021 has increased from \$842.8 million (net) last quarter to \$860.7 million (net). The graph below includes 1) a symbol (♦) to show the current forecast to completion and (2) inception-to-date (“ITD”) Spend in the upper left of the chart.



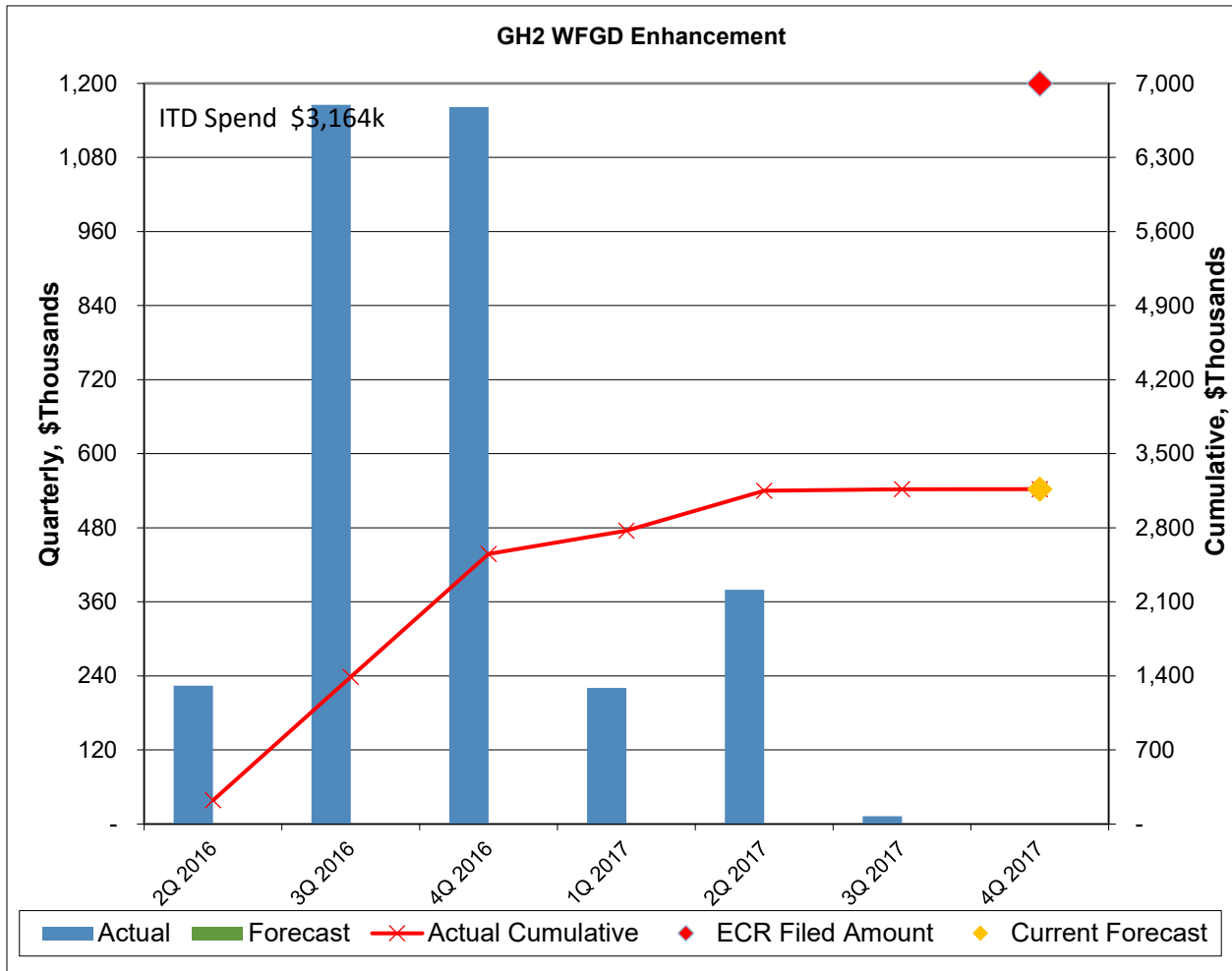
The CCR Impoundment Closure total forecasted costs have increased from \$919.5 million (net) forecast last quarter to \$948.8 million (net), as explained above. Total spend through September 30, 2021 has increased from \$812.6 million (net) last quarter to \$830.5 million (net). The graph below includes 1) a symbol (◆) to show the current forecast to completion and (2) ITD Spend in the upper left of the chart.



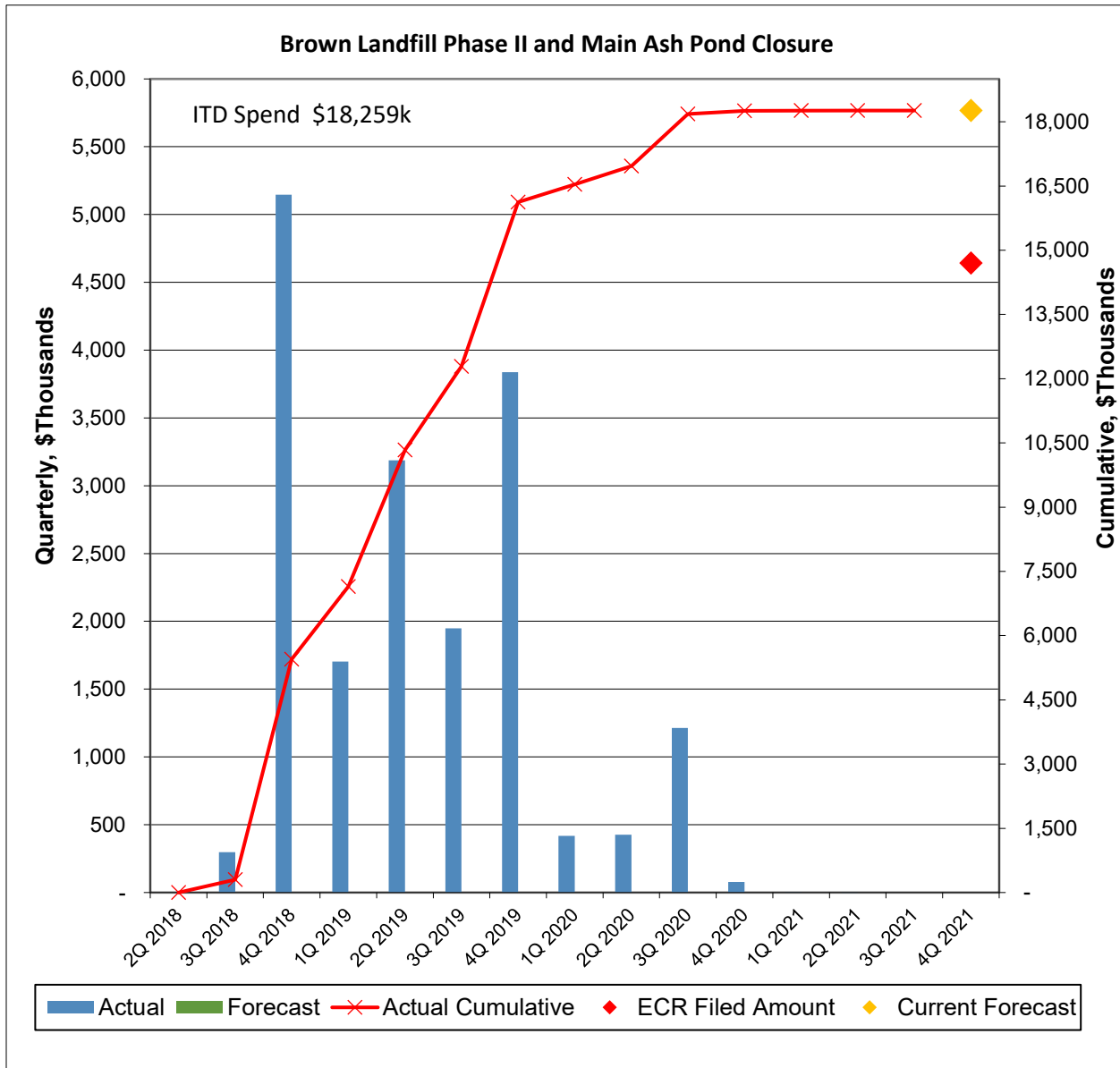
The Mercury Injection projects have been completed and commissioned. The project’s total spend was \$8.7 million compared to the filed estimate of \$15.0 million.



The Ghent Unit 2 WFGD Enhancement project has been completed. Total spend on the project was \$3.2 million compared to the filed estimate of \$7.0 million.



The E.W. Brown Landfill Phase II and Phase III Closure project forecasted costs remain at \$18.3 million. Total spend through September 30, 2021 remains \$18.3 million. The graph below includes 1) a symbol (◆) to show the current forecast to completion and 2) ITD Spend in the upper left of the chart.



Planned Activities for Next Quarter:

State Division of Waste Closure Projects

Status updates were removed from this report going forward due to these projects being completed. There are no further construction plans for these projects except for warranty maintenance issues should they arise.

Federal CCR Rule Closure Projects

CCR Closures:

TT will continue with Phase II & III closure activities at Ghent, as well as closure activities on the Trimble County Bottom Ash Pond and Gypsum Storage Pond. Construction by Thalle will focus on dewatering for the E.W. Brown Auxiliary Ash Pond closure. The Companies will continue to monitor and work through warranty maintenance issues of the projects should they arise.

PWS Projects:

AMEC will continue working on warranty items on both the Mill Creek and Trimble County PWS projects. B&McD will continue to work on warranty items at Ghent. Both AMEC and B&McD, along with the Companies and the Companies' OE, will continue reviewing warranty matters along with remaining final engineering designs, procurement activities, and the operation of Suez's PWS equipment and process at all three stations (Ghent, Mill Creek, and Trimble County).

E.W. Brown Landfill Phase II and Phase III Closure

The landfill Phase III CPR was completed and submitted by KU to the KDWM on September 21, 2021 for their review. All work is completed.