

2016 ECR Plan Status Update Report Quarterly Report – Update #23 April 29, 2022

Executive Summary:

General

This report covers LG&E and KU's ("Companies") progress on the 2016 Environmental Cost Recovery ("ECR") Plan through the first quarter of 2022.

The overall 2016 ECR Plan safety performance through the first quarter of 2022 remains excellent with a year-to-date OSHA Recordable Incident Rate of 0.00 and an inception-to-date OSHA Recordable Incident Rate of 0.46, compared to the industry average of 3.2.

As reported in the last quarter, the total 2016 ECR Plan projected cost remains \$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 increased from \$882.4 million (net) last quarter to \$893.2 million (net) through March 31, 2022.

CCR Compliance (CCR Rule and State CCR Pond Closures)

Safety performance through the first quarter is excellent with a year-to-date OSHA Recordable Incident Rate of 0.00 and an inception-to-date Recordable Incident Rate of 0.48, compared to an industry average Recordable Incident Rate of 3.2.

The total projected cost for the Coal Combustion Residual ("CCR") Closure Program remains \$948.8 million (net). Total spend to date through March 31, 2022 increased from \$852.2 million (net) last quarter to \$862.9 million (net).

The remaining engineering activities primarily consist of supporting ongoing construction activities and updating design documents to reflect "as-built" conditions of the completed projects. 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 scale of the various closure processes takes years 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 solid or liquid

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.

materials. By persistently pursuing the closure processes, the Companies have completed the complex process of physical closure for 11 CCR impoundments. The Companies continue to progress towards completion of the three remaining impoundment closures that have already been initiated.

On January 11, 2022, EPA issued a press release and preliminary decision documents for nine of the fifty seven Part A applications it received requesting an extension on the deadline for closure for CCR impoundments. Although the Companies did not submit any Part A applications or request extensions for any CCR impoundment closures, EPA's proposed determinations reflect interpretation of the CCR Rule which may potentially be applied generally.

The Agency has also sent letters to various facilities raising concerns about improper groundwater monitoring, insufficient remedial progress, and regulation of inactive surface impoundments, which provide further insight into current EPA interpretations.

While part of the analysis reflected in EPA's proposed determinations on the Part A closure extension requests and correspondence with individual companies is facility-specific in nature, these actions also reference new regulatory interpretations that may potentially be adopted by the Agency. Some of the interpretations raise questions about whether it is permissible to implement closure in place for facilities in which CCR may be placed below the water table or utilize the beneficial use of CCR for closure purposes. On March 18, 2022, the Companies received electronic correspondence from the Kentucky Division of Waste Management (forwarded from EPA) that three of its impoundments (one each at the Ghent, Trimble County, and Mill Creek Station) had been identified by EPA as potentially having waste below the water table. Closure has been completed on one of the identified impoundments and significant progress has been made on in-place closure of the others. The correspondence did not identify any specific or required actions on the part of the Companies.

Some of the EPA's new regulatory interpretations appear inconsistent with applicable law or past EPA interpretations. A number of the new interpretations are the subject of EPA's ongoing public notice and comment process and may be changed or clarified in the future. Additionally, there is the potential for future litigation initiated by various stakeholders. In the meantime, regardless of the current regulatory uncertainties, LG&E and KU are obligated to proceed with their ongoing compliance efforts. As has been our practice, the Companies continue to track these developments and the effects they may have on future CCR-Rule related compliance. LG&E and KU plan to continue with implementation of current compliance strategies unless future developments warrant changes or updates.

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. During the first quarter of 2022, TT completed construction of the new lined South Cooling Pond and ATB #1 Stormwater Pond (previously called the Secondary 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 (completed in the fourth quarter of 2021) 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. 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 has completed the installation of the closure system on the auxiliary CCR impoundment; however, dewatering of the remaining interstitial water (below the liner cap system) through the use of deep wells has experienced reduced production due to fouling of wells and equipment issues prolonging the dewatering effort.
- Green River – Project completed in the second quarter of 2020. Remaining activities are limited to addressing minor issues identified post closure of the CCR facilities.
- Mill Creek – TT completed submission of as-built survey data and remaining project close-out documents. Final as-built drawings and the construction progress report will be completed by AECOM Technical Services, Inc. (“AECOM”) during the second quarter of 2022.
- Pineville – Project completed in the second quarter of 2020. Remaining activities are limited to addressing minor issues identified post closure of the CCR facility.
- Trimble County – TT continues hauling CCR material to the Bottom Ash Pond (“BAP”) for beneficial use; excavating and grading activities within the BAP; dredging work within the BAP; dewatering the Gypsum Storage Pond (GSP); and development of borrow sties that will supply fill material for the BAP closure.
- Tyrone – Project completed in the second quarter of 2020. Remaining activities are limited to addressing minor issues identified post closure of the CCR facilities.

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. The program-wide meetings provide an opportunity for all parties to deliver updates and to ensure the contractors are providing similar deliverables across the projects.

Process Water System Projects

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 absent major regulatory developments, we do not expect that CCR Rule changes will require any major re-evaluations of our plans. LG&E and KU remain well positioned to comply with the evolving CCR Rule requirements. 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.

- Trimble County – Project has been placed into Commercial Operation. Remaining activities are associated with warranty claims and project closeout.
- Mill Creek – Project has been placed into Commercial Operation. Remaining activities are associated with warranty claims and project closeout.
- Ghent – Project has been placed into Commercial Operation. Remaining activities are associated with warranty claims and project closeout.
- E.W. Brown – Project has been placed into Commercial Operation. Remaining activities are associated with warranty claims and project closeout.

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	4Q 2022
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	Cap and Closure Completed 4Q 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 SO2 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 and Phase III

On September 21, 2021, KU submitted the Construction Progress Report (“CPR”) for the Landfill Phase III Final Cover to the Kentucky Department of Waste Management (“KY-DWM”) for their review. Notice of Deficiency (“NOD”) # 1 was received on October 19, 2021. KU responded on December 16, 2021. NOD # 2 was received on January 7, 2022 and was responded to on February 1, 2022. On March 3, 2022 the KY-DWM accepted KU’s responses to NOD # 1 and #2 and reissued the revised permit.

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. During the first quarter of 2022, TT has also completed construction of the new lined South Cooling Pond and ATB #1 Stormwater Pond (previously called the Secondary 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 (completed in the fourth quarter of 2021) 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. 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 – January 2022



Ghent ATB #1 – Looking West – April 2022



Ghent ATB #1 and Cooling Channel – Looking East – January 2022



Ghent ATB #1 and Cooling Channel – Looking East – April 2022



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

KU continues to hold weekly and monthly project update meetings. TT continues hauling CCR material to the Bottom Ash Pond (“BAP”) for beneficial use; excavating and grading activities within the BAP; dredging work within the BAP; dewatering the Gypsum Storage Pond (“GSP”); and development of borrow sties that will supply fill material for the BAP closure.

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



Trimble BAP – Looking North – January 2022



Trimble BAP – Looking North – April 2022

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 has completed the installation of the closure system on the impoundment; however, dewatering of the remaining interstitial water (below the liner cap system) through the use of deep wells has experienced reduced production due to fouling of wells and equipment issues prolonging the dewatering effort. The Companies continue to engage Thalle with the expectation of improved dewatering performance. 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 were completed during the fourth quarter of 2021. Repairs associated with stormwater erosion damage to the walking trail, along with additional installation of native grasses and pollinators will be completed in the second quarter of 2022 when the weather is more favorable. Repairs to an asphalt section of Curdsville Road/State Highway 342 was completed in March of 2022 as a result of damage related to the hauling of cover soil from the Carey Farm property to E.W. Brown.



E.W. Brown Aux Pond – January 2022



E.W. Brown Aux Pond – March 2022



E.W. Brown Landfill Phase II and Closure – January 2022



E.W. Brown Landfill Phase II and Closure – March 2022

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

TT completed submission of as-built survey data and remaining project close-out document. Final as-built drawings and the construction progress report will be completed by AECOM during the second quarter of 2022.

Given the closure work is completed the reports going forward will not include pictures of the diffuser installation.



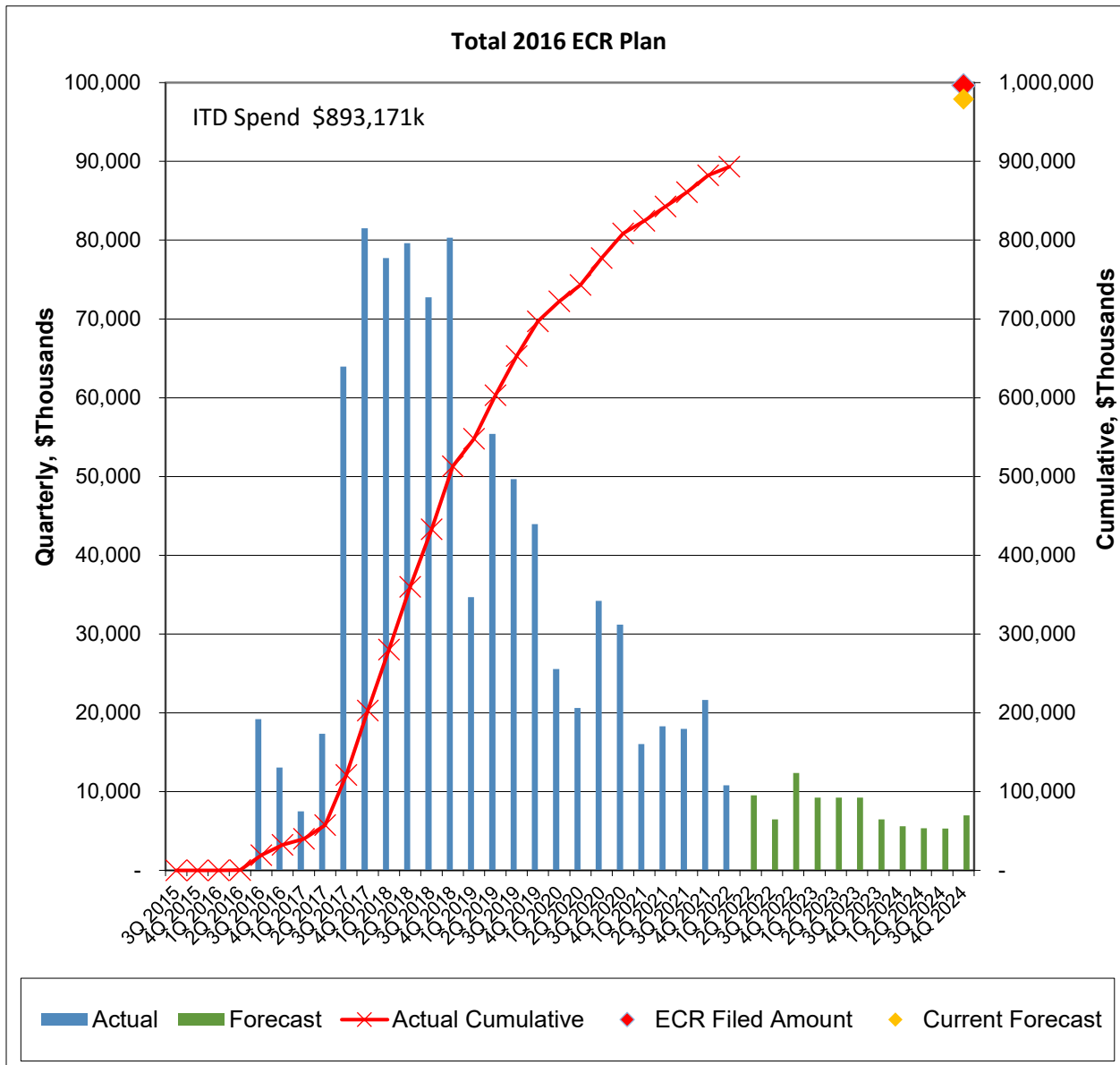
Mill Creek Main Ash Pond Closure – January 2022



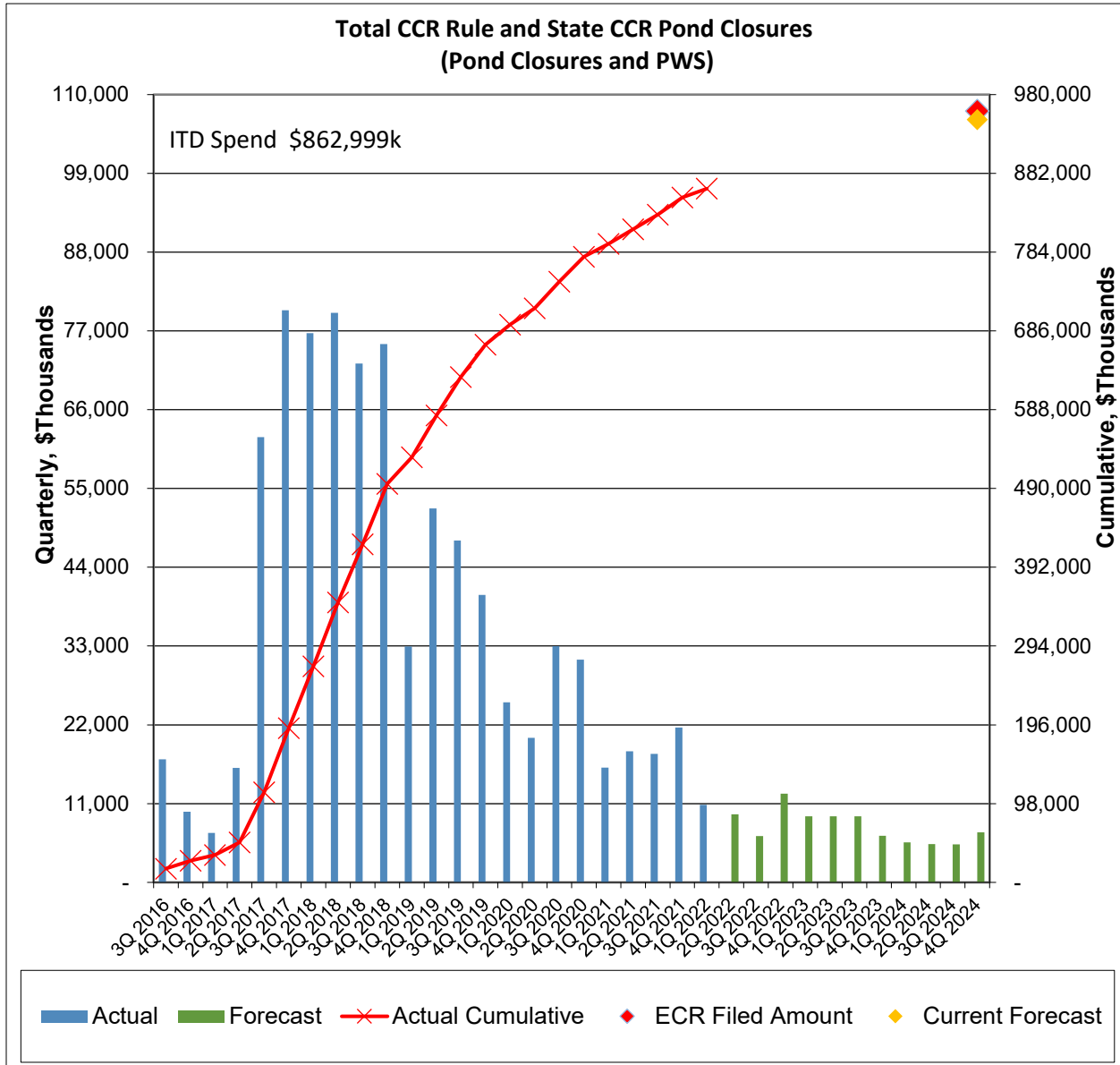
Mill Creek Main Ash Pond Closure – March 2022

Financials:

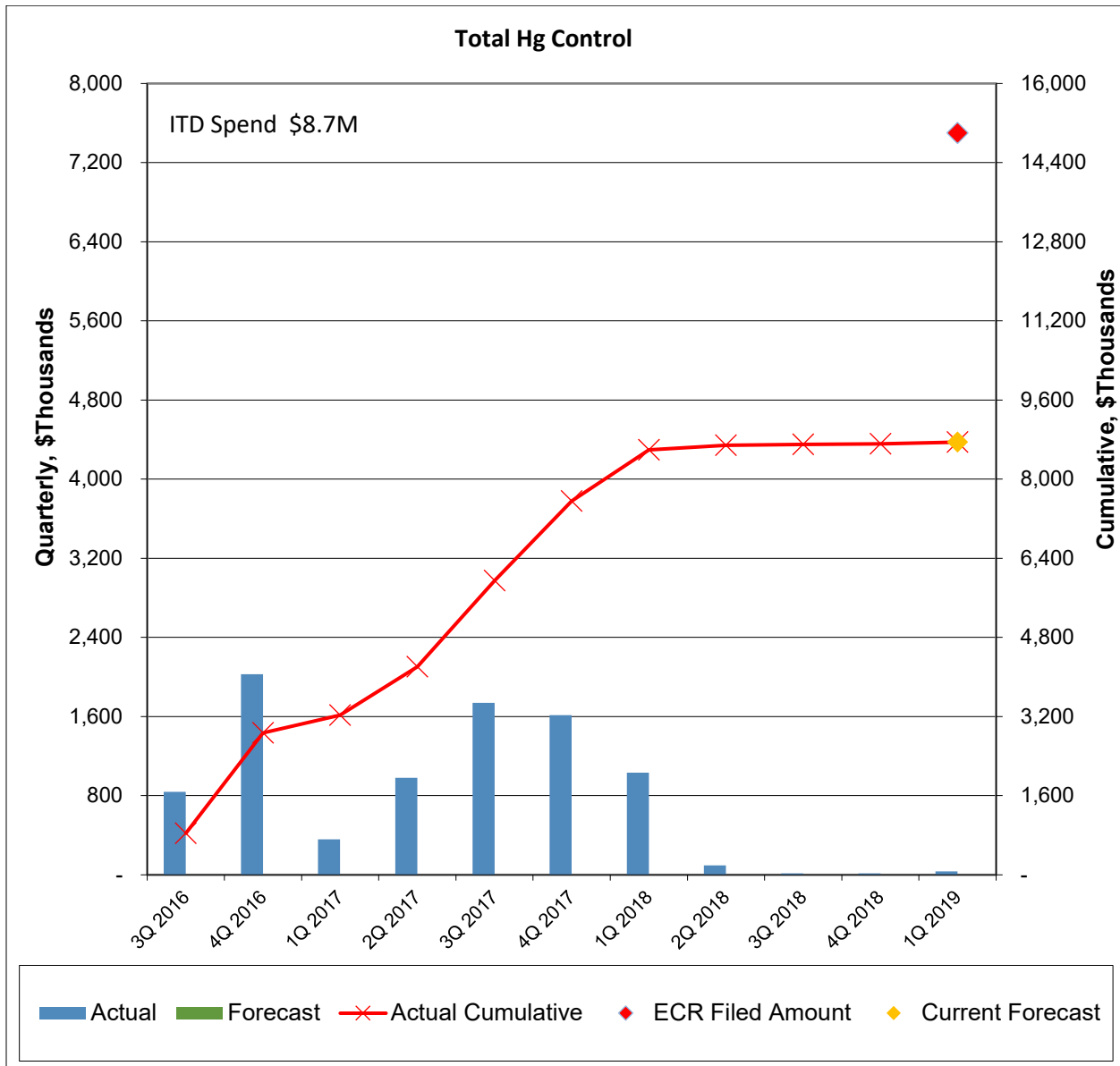
As reported in the last quarter, the total 2016 ECR Plan projected cost remains \$979.0 million (net), compared to the filed total of \$996.4 million. Total spend through March 31, 2022 has increased from \$882.4 million (net) last quarter to \$893.2 million (net). The graph below includes 1) a symbol (◆) to show the current forecast to completion and (2) inception-to-date (“ITD”) Spend in the upper left of the chart.



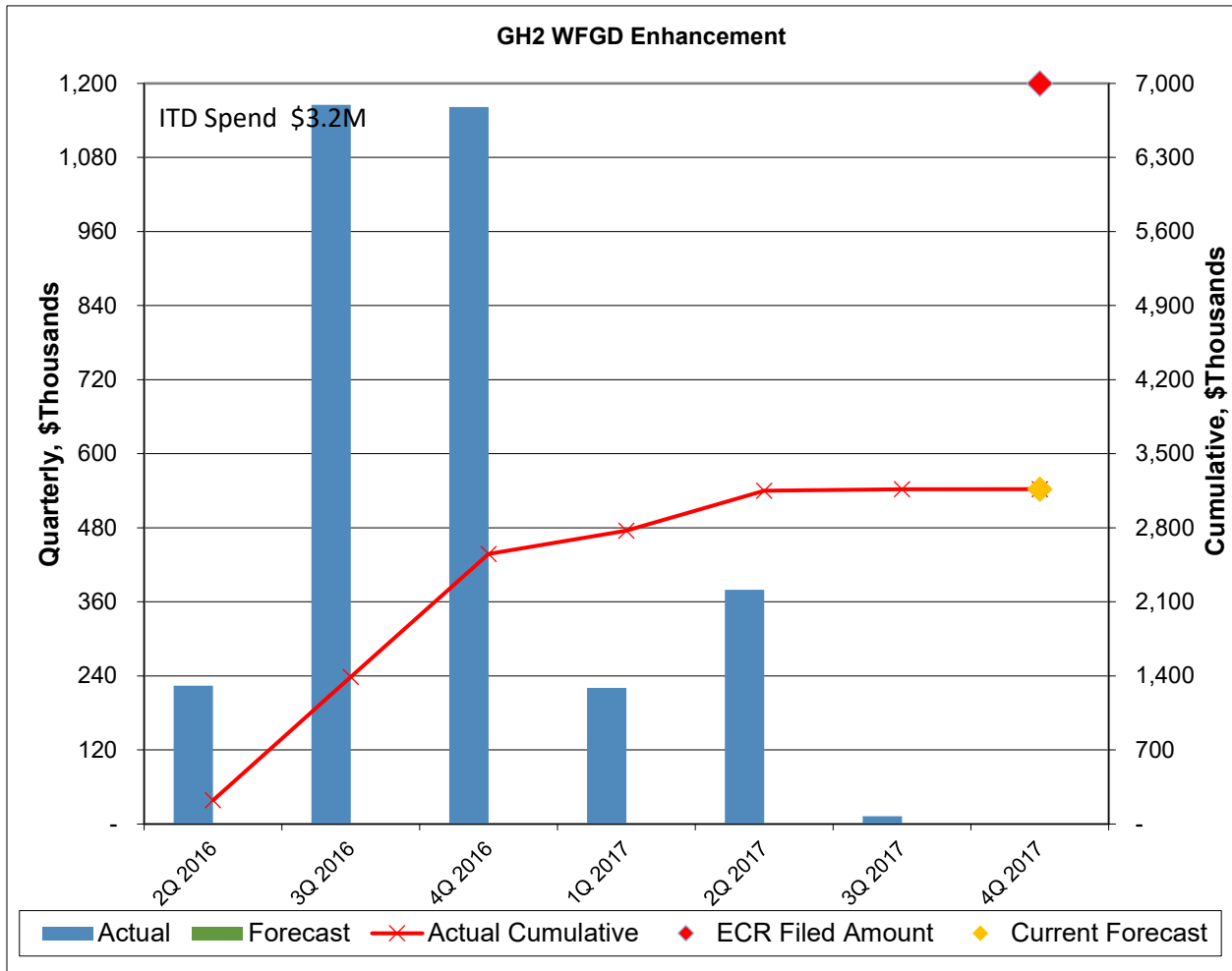
The CCR Impoundment Closure total forecasted cost remains \$948.8 million (net). Total spend through March 31, 2022 has increased from \$852.2 million (net) last quarter to \$862.9 million (net). The graph below includes 1) a symbol (◆) to show the current forecast to completion and (2) ITD Spend in the upper left of the chart.



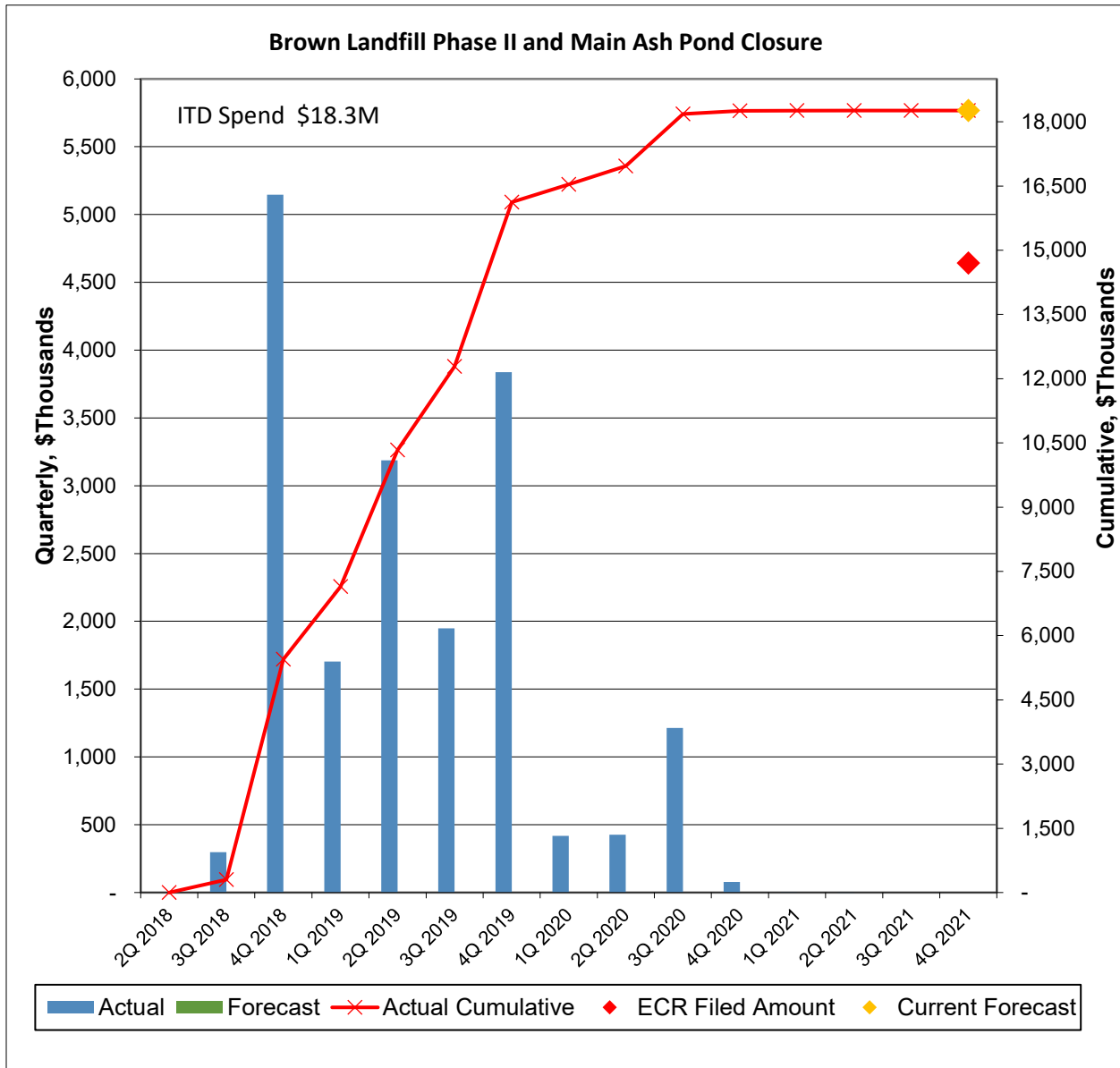
The Mercury Injection projects have been completed and commissioned. The project’s total spend was \$8.7 million compared to the filed estimate of \$15.0 million.



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 March 31, 2022 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:

Federal CCR Rule Closure Projects

CCR Closures:

TT will continue with Phase 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 and maintenance issues, on all 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 III Closure

Given KU's receipt on March 3, 2022 of the KY-DWM acceptance of the revised permit, this project is deemed complete.