



**2016 ECR Plan Status Update Report
Quarterly Report – Update #17
October 30, 2020**

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 2020.

The overall 2016 ECR Plan safety performance through the third quarter of 2020 remains excellent with a year-to-date OSHA Recordable Incident Rate of 0.0 and an inception-to-date OSHA Recordable Incident Rate of 0.49, compared to the industry average of 3.2.

The total 2016 ECR Plan projected cost remained unchanged to last quarter's \$949.6 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 \$743.0 million (net) last quarter to \$777.2 million (net) through September 30, 2020.

The Companies continue to monitor the COVID-19 pandemic situation as well as work with all contractors to minimize the impact to the projects. To date, there have been no impacts to the work.

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 0.49, compared to an industry average Recordable Incident Rate of 3.2.

The total projected costs for the Coal Combustion Residual ("CCR") Closure Program remain unchanged from the last quarter's \$919.5 million (net) forecast. Total spend to date through September 30, 2020 has increased from \$714.2 million (net) last quarter to \$747.1 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, and the finalization of the Request for Quotation ("RFQ") documents for the closure scopes for the Trimble County Bottom Ash Pond ("BAP") and Gypsum Storage Pond ("GSP").

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.

The Companies continue to closely follow CCR Rule developments and revisions proposed by the U.S. Environmental Protection Agency (“EPA”). EPA proposals described in the most recent update remain in “proposed” status. These proposals include publications on August 14, 2019 (Phase 2 Proposal), February 20, 2020 (Federal CCR Permitting Program Proposal), and March 3, 2020 (Part B Proposal). The Companies have not made any, nor anticipate any, design or construction changes to their compliance plan as a result of EPA actions to date.

Along with the afore-listed proposals, the Companies have learned that EPA is developing strategies for rulemaking relating to “legacy” impoundments. This rulemaking effort was required by the 2018 Utility Solid Waste Activities Group (“USWAG”) decision and was intended to reach back to include those CCR surface impoundments not covered by the original 2015 CCR Rule. As it relates to legacy impoundments, the Companies have completed closure of the units (Tyrone, Green River and Pineville) believed to have potential for inclusion in this future rulemaking (which is still in development). Since the Companies’ “legacy” ponds have been closed in accordance with existing CCR Rule requirements, minimal additional actions resulting from this anticipated rulemaking effort are expected relative to closure. LG&E and KU will continue to track any new rulemakings relating to the CCR Rule, including whether or not the future rulemaking will require additional groundwater monitoring at these sites.

Finally, on August 28, 2020, the EPA acted on its Part A proposal from December 2, 2019 and issued additional revisions to the CCR Rule in final form. The finalized Part A CCR Rule update will have little effect on LG&E and KU’s compliance plans because it pertains mostly to alternative closure schedules for facilities needing to operate beyond the new April 11, 2021 closure date. The new closure initiation deadline of April 11, 2021 for unlined CCR surface impoundments is significant in that it provides the industry with nearly six additional months to initiate closure. However, LG&E and KU have already initiated schedules that will allow its remaining impoundment closures to be started by the revised closure declaration deadline. As a result, the Companies remain confident that the plans already in place will continue to maintain compliance and satisfy all CCR Rule expectations.

CCR Impoundment Closures

- Ghent – Tetra Tech’s Phase II scope (construction of the South Cooling Pond and closure of Ash Treatment Basin [“ATB”] #1) is currently in closure as of January 9, 2020. Work includes, but is not limited to, installation of a geo-synthetic liner cap, and the soil cover. Hauling of CCR material to ATB #1 has been completed except for minor CCR material needed for fine grading activities. Overall, Tetra Tech continues to progress the Ghent projects very well with no compliance issues forecasted. The Phase III closure of ATB #2 was awarded to Tetra Tech during the second quarter of 2020. Work to date on the Phase III scope has been limited to preliminary site investigations, purchase of geo-synthetic materials, regrading of CCR material within the footprint of ATB #2, and hauling of CCR material; from the Gypsum Stack and Coal Combustion Residual Treatment area, and filter cake from the Process Water System (“PWS”).
- E.W. Brown – Thalle continues to progress with closure of the Auxiliary Ash Pond. Dewatering of interstitial water continues through the use of deep and shallow wells. Over 80% of the

impoundment has been covered with a flexible membrane liner (FML) with the remaining liner to be completed in the fourth quarter 2020. Following the liner work is the placement of cover soil (which is over 60 percent complete) that was sourced from the onsite Dempsey Farm. Thalle will begin to haul topsoil in the fourth quarter from an offsite source. Topsoil will be placed over the cover soil layer and work may extend into 2021 depending on rainfall during the fourth quarter of 2020. Additional stormwater controls will be constructed in the fourth quarter 2020 and into early 2021 with the installation of fabric-formed stormwater ditches and the installation of a 24” diameter stormwater pipe through the northeast berm of the impoundment. Additional work related to the reclamation of the Dempsey Farm borrow area includes the demolition of abandon structures, construction of a walking trail, and installation of pollinators and native grasses. Improvements to the access roads to the new process water pond and toe drain collection system will be completed during the fourth quarter 2020. A new permitted KPDES discharge sampling structure for the Wick Drain will go into service during the fourth quarter.

- Green River – Project completed in the second quarter of 2020.
- Mill Creek – Tetra Tech continues to make significant progress in the Main Ash Pond closure. Tetra Tech continues hauling CCR material within the Main Ash Pond to achieve the contours for the new process pond and cap system and continues with construction of access/haul roads throughout the Main Ash Pond. Dewatering activities are ongoing, installation of the geo-synthetic liner system and fabric form concrete for the new process water pond, as well as installation of the geo-synthetic liner cap. The emergency CCR pond, construction run-off pond, clearwell pond and dead-storage pond have all been completed.
- Pineville – Project completed in the second quarter of 2020.
- Trimble County – Work has been limited to interviewing potential bidders for the clean closure of the GSP and the closure-in-place of the BAP. Project Engineering’s commercial group and project team have completed developing the majority of the project specifications and contract documents that will be issued for bid upon receiving a response from the KDOW on the Companies’ draft Agreed Order that was submitted to the State in May, 2020.
- Tyrone – Project completed in the second quarter of 2020.

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

² EPA has committed to revising various portions of the CCR Rule. While they have proposed many changes to the CCR Rule, EPA has indicated that there are still other additional proposals under development. The scope of these changes, the interest they have generated, and COVID-19 re-prioritization of government resources have substantially extended EPA’s anticipated timeline for revisions beyond their original “end-of-2019” window. However, the Companies’ strategies have so far been resilient and CCR Rule changes anticipated will 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 update the Commission relative to issues that may affect construction schedules and activities.

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. Warranty work and modifications to the dry bottom ash transport piping on all four units began in September 2020.
- Ghent – Project has been placed into Commercial Operation.
- E.W. Brown – Project has been placed into Commercial Operation. Bowen Engineering continues to work to complete and deliver the record set of drawings at which time they achieve final completion.

Schedules

CCR Rule and State CCR Impoundment Closures

<u>Project</u>	<u>Project #</u>	<u>EPC Status</u> ³	<u>Planned In-Service Date</u> ⁴
E.W. Brown Aux Pond	KU Project 42	Awarded July 9, 2018	May 2021
E.W. Brown Main Ash Pond (Deleted Phase III of Landfill)	KU Project 36	Awarded July 9, 2018	November 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	December 2020
Green River Main Pond	KU Project 39	Completed	Cap and Closure Completed
Green River ATB #2	KU Project 39	Completed	Cap and Closure Completed
Green River SO2 Pond	KU Project 39	Completed	Clean Closure Completed
Mill Creek Ash Pond	LG&E Project 29	Awarded April 4, 2019	December 2021
Mill Creek Clearwell Pond	LG&E Project 29	Completed	Clean Closure Completed & New Pond in Service
Mill Creek Construction Runoff Pond	LG&E Project 29	Completed	Clean Closure Completed and New Pond in Service
Mill Creek Emergency Pond	LG&E Project 29	Completed	Clean Closure Completed and area structurally backfilled.
Mill Creek Dead Storage Pond	LG&E Project 29	Completed	Clean Closure Completed and area structurally backfilled
Pineville Ash Pond	KU Project 39	Completed	Cap and Closure Completed
Trimble County Bottom Ash Pond	KU Project 41, LG&E Project 30	Issue RFQ upon receipt of Agreed Order	October 2024
Trimble County Gypsum Storage Pond	KU Project 41, LG&E Project 30	Issue RFQ upon receipt of Agreed Order	October 2023
Tyrone Ash Pond	KU Project 39	Completed	Cap and Closure Completed

PWS Projects

<u>Project</u>	<u>Project #</u>	<u>EPC Status</u> ³	<u>Planned In-Service Date</u> ⁴
E.W. Brown PWS	KU Project 42	Awarded June 14, 2018	Placed in Service May 2020
Ghent PWS	KU Project 40	Awarded August 1, 2017	Placed in Service April 2020
Mill Creek PWS	LG&E Project 29	Final Completion Granted 1Q 2020	Placed in Service October 2019
Trimble County PWS	KU Project 41, LG&E Project 30	Final Completion Granted 1Q 2020	Placed in Service October 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.

E.W. Brown Landfill Phase II

Thalle will complete all remaining punch-list items and record drawings during the fourth quarter of 2020. The landfill will be placed into service during the fourth quarter of 2020.

Quarterly Status Update:

State Division of Waste Closure Projects:

KU Project 39 – Green River (GR)/Pineville (PV)/Tyrone (TY) Impoundment Closure

- The closure projects for Green River, Pineville and Tyrone were completed in the second quarter of 2020.



Green River CCR Impoundments – July 2020 – Completed



Pineville Ash Pond – July 2020 – Completed



Tyrone Ash Pond – June 2020 – Completed

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 Phase II scope (construction of the South Cooling Pond and closure of ATB #1) is currently in closure as of January 9, 2020. Work includes, but is not limited to, installation of a geo-synthetic liner cap and the soil cover. Hauling of CCR material to ATB #1 has been completed except for minor CCR material needed for fine grading activities. Overall, Tetra Tech continues to progress the Ghent projects very well with no compliance issues forecasted. The Phase III closure of ATB #2 was awarded to Tetra Tech during the second quarter. Work to date on the Phase III scope has been limited to preliminary site investigations, purchase of geo-synthetic materials, regrading of CCR material within the footprint of ATB #2, as well as hauling of CCR material from the Gypsum Stack, Coal Combustion Residual Treatment area, and filter cake from the Process Water System (“PWS”).

With regards to the PWS, Commercial Operation was issued to B&McD on April 13, 2020. B&McD continues to address punch-list items in an effort to achieve Final Completion. It is anticipated that Final Completion will likely be given to B&McD in the fourth quarter upon achievement of all obligations outlined in the Agreement.



Ghent Gypsum Stack – Looking East – July 2020



Ghent Gypsum Stack – Looking West – October 2020



Ghent ATB #1 and Cooling Channel – Looking East – July 2020

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

The Companies submitted a draft Agreed Order on how best to dewater the BAP to the KDOW in May of 2020 and anticipated a response during the third quarter of 2020. However, the Companies did not receive a response to the draft Agreed Order in the third quarter and has subsequently delayed issuing the RFP. Recent communication with the KDOW indicates the Companies should receive comments on the draft Agreed Order in October of 2020. On-site work has been limited to interviewing potential bidders for the clean closure of the GSP and the closure-in-place of the BAP. Project Engineering’s commercial group and project team have completed developing the majority of the project specifications and contract documents that will be issued for bid to the market upon receiving a response from KDOW on the draft Agreed Order. The PWS project has been completed and the EPC contractor was granted Final Completion.

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

Thalle continues to progress with closure of the Auxiliary Ash Pond. Dewatering of interstitial water continues through the use of deep well and well point (shallow) wells. Water removed from the impoundment continues to be sent through the temporary water treatment system prior to discharging through the permitted discharge point. In order to achieve design elevations, additional CCR was imported into the impoundment which accelerated the achievement of a stable and firm subgrade allowing for liner work to progress. Over 80% of the impoundment has been covered with a flexible membrane liner (FML) with the remaining liner to be completed in the fourth quarter. Following liner work is the placement of cover soil that was sourced from the onsite Dempsey Farm, which is over 60% complete. Soil from the Dempsey Farm was exhausted in early October and work began to harvest additional cover soil from the recently purchased Carey Farm. The remaining cover soil will be hauled from the Carey Farm to the impoundment and will be completed in the fourth quarter. Thalle will begin to haul topsoil in the fourth quarter from an offsite source. Topsoil will be placed over the cover soil layer and work may extend into 2021 depending on rainfall during the fourth quarter. Additional stormwater controls will be constructed in the fourth quarter and into early 2021 with the installation of fabric-formed stormwater ditches and the installation of a 24” diameter stormwater pipe through the northeast berm of the impoundment. Additional work related to the reclamation of the Dempsey Farm borrow area includes the demolition of abandon structures, construction of a walking trail, and installation of pollinators and native grasses. Improvements to the access roads to the new process water pond and toe drain collection system will be completed during the fourth quarter. A new permitted Kentucky Pollutant Discharge Elimination System (“KPDES”) discharge sampling structure for the Wick Drain will go into service during the fourth quarter.

Bowen Engineering continues to work to complete and deliver the Record set of drawings at which time they achieve final completion on the PWS project.

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



E.W. Brown Aux Pond – July 2020



E.W. Brown Aux Pond – October 2020



E.W. Brown Landfill Phase II and Closure – July 2020



E.W. Brown Landfill Phase II and Closure – October 2020

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

Tetra Tech continues to make significant progress in the Main Ash Pond closure. Tetra Tech continues hauling CCR material within the Main Ash Pond to achieve the contours for the new process pond and cap system and continues with construction of access/haul roads throughout the Main Ash Pond. Dewatering activities are ongoing, installation of the geo-synthetic liner system and fabric form concrete for the new process water pond, as well as installation of the geo-synthetic liner cap. The PWS project has been completed and the EPC contractor was granted Final Completion. Warranty work and modifications to the dry bottom ash transport piping on all four units began in September 2020.



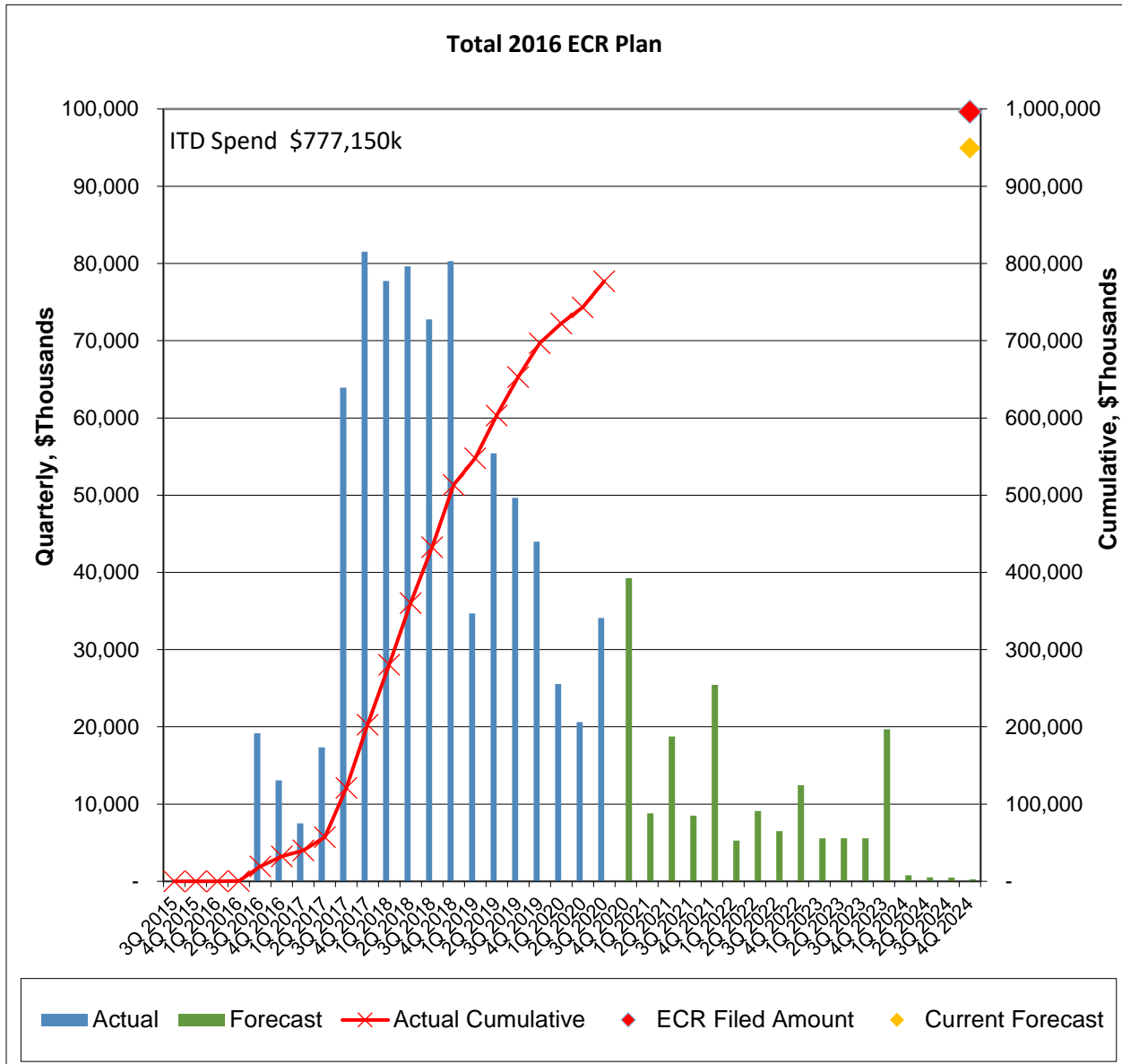
Mill Creek Main Ash Pond Closure – June 2020



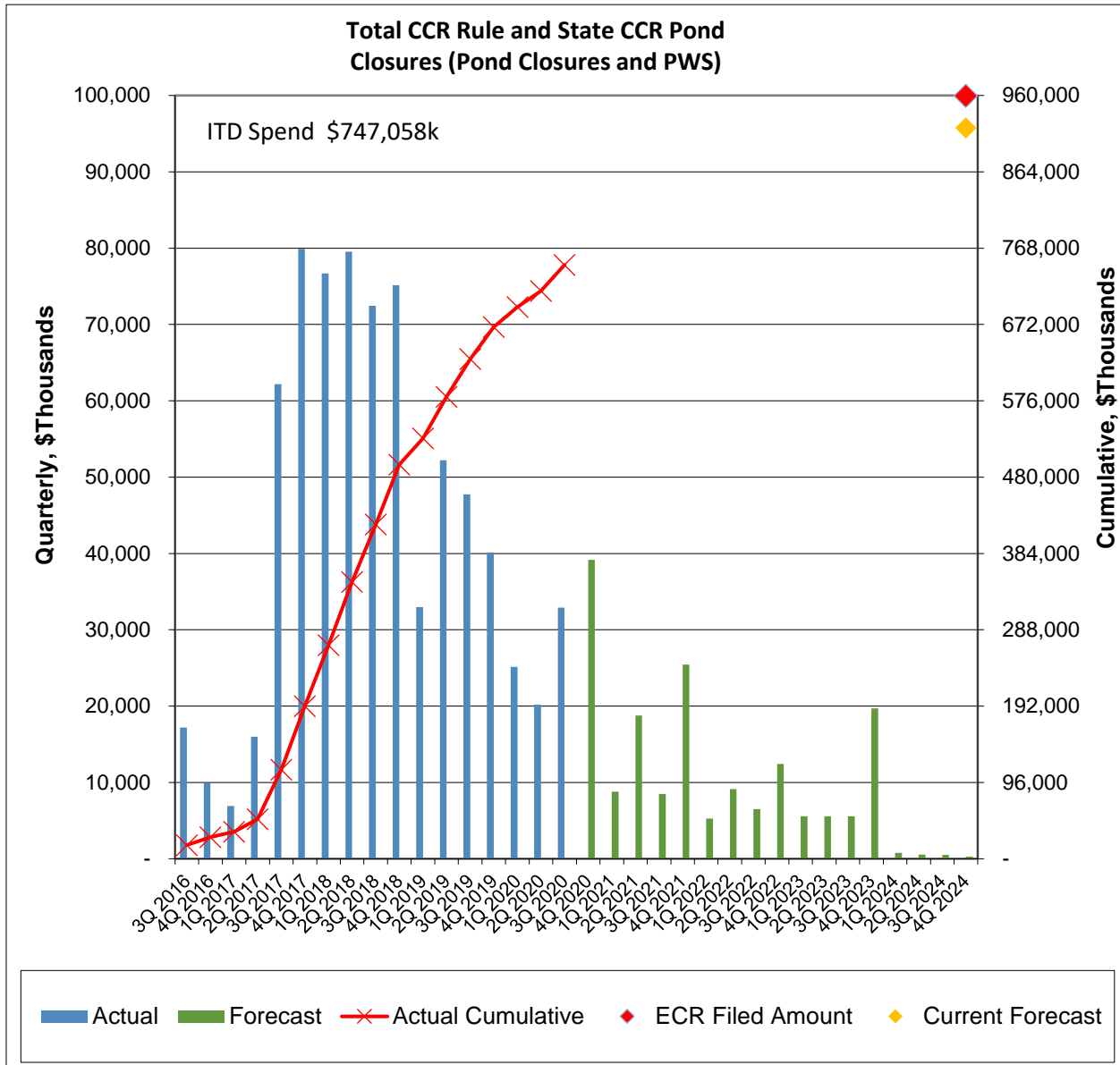
Mill Creek Main Ash Pond Closure – September 2020

Financials:

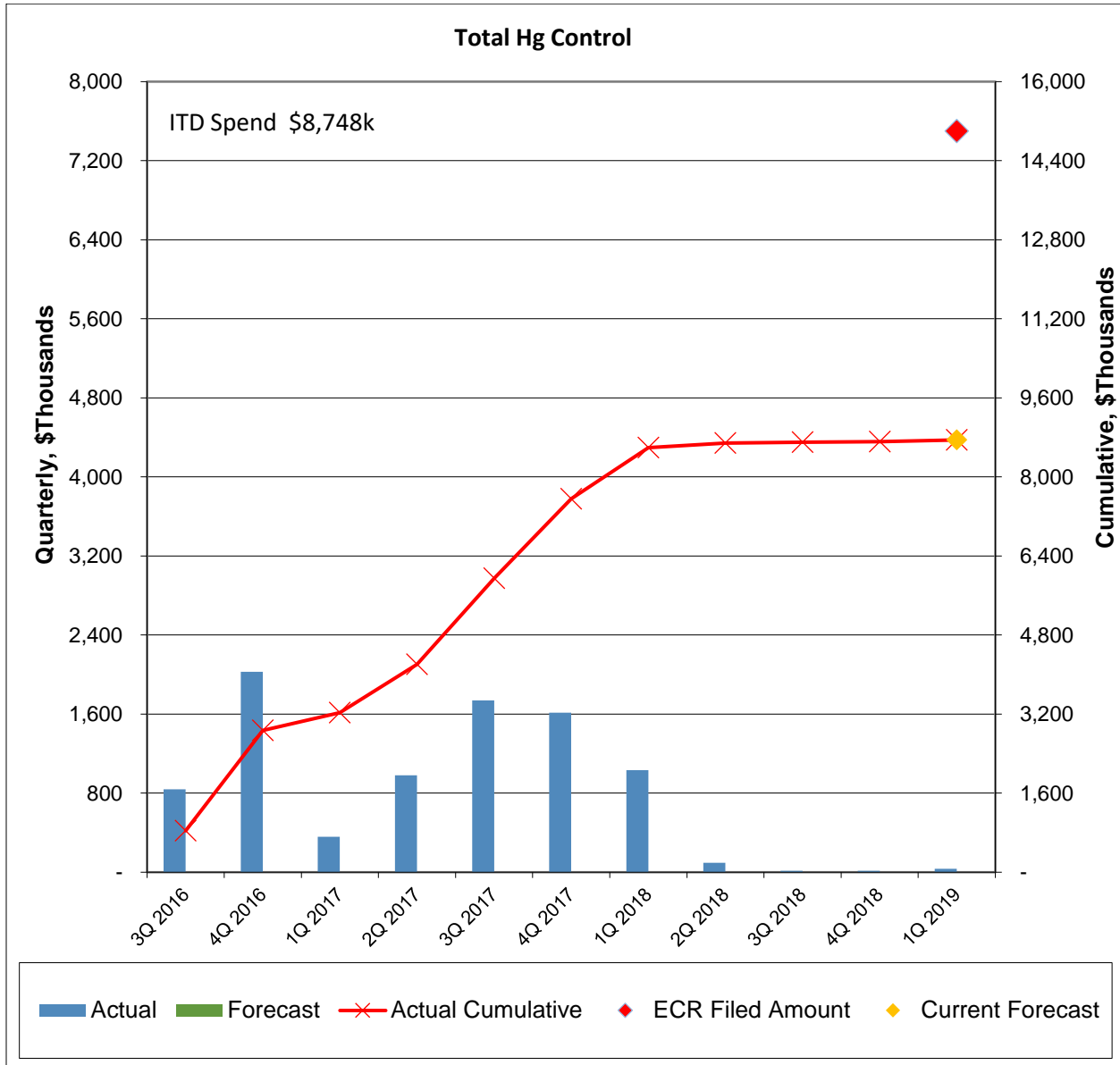
The total 2016 ECR Plan forecasted cost remained unchanged from the last quarter and is \$949.6. Total spend through September 30, 2020 has increased from \$743.0 million (net) last quarter to \$777.2 million (net). The graph below includes 1) a symbol (◆) to show the current forecast to completion and (2) inception-to-date (“ITD”) Spend in the upper left of the chart.



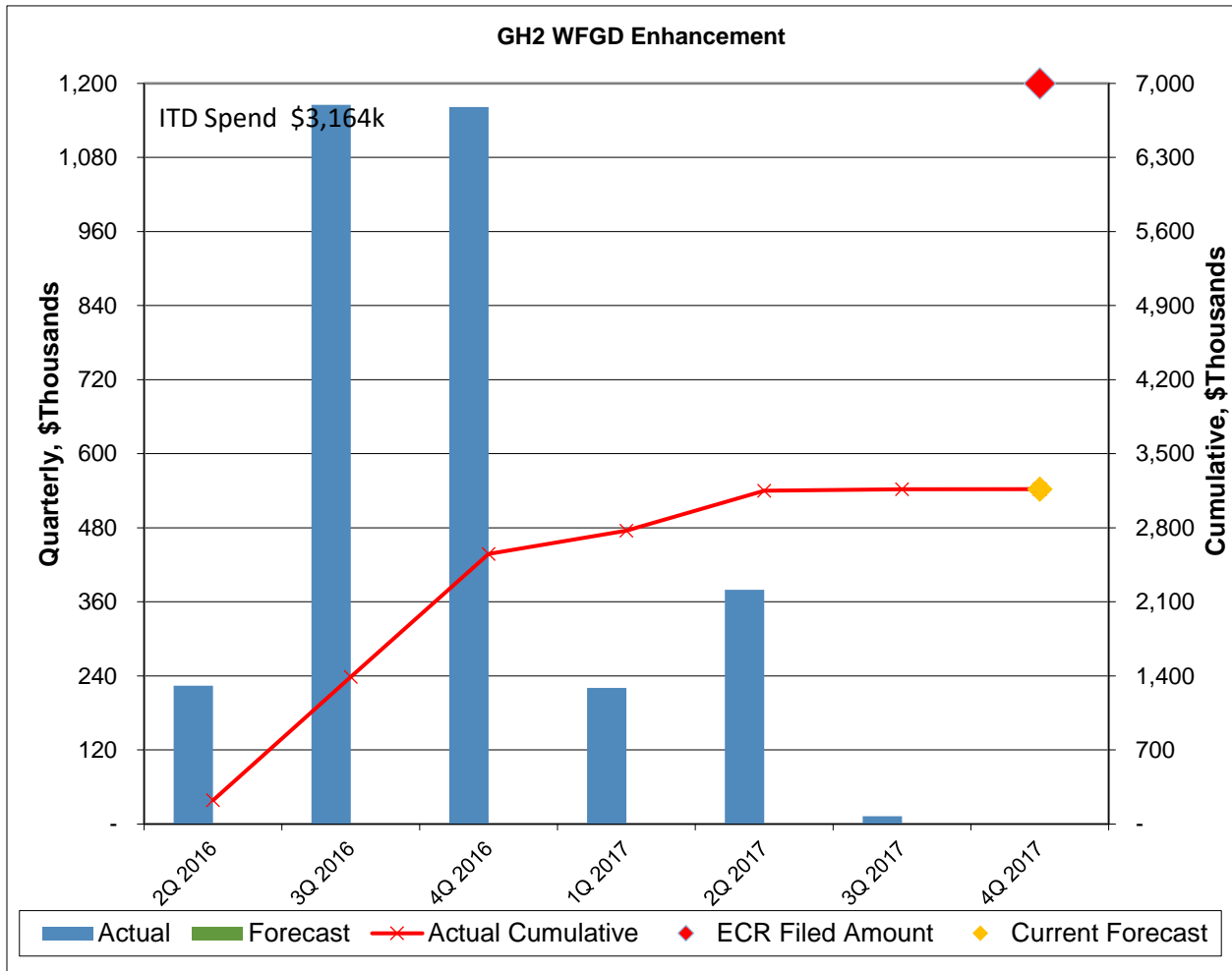
The CCR Impoundment Closure total forecasted cost remained flat to the last quarter and is \$919.5 million (net) as explained above. Total spend through September 30, 2020 has increased from \$714.2 million (net) last quarter to \$747.1 million (net). The graph below includes 1) a symbol (◆) to show the current forecast to completion and (2) ITD Spend in the upper left of the chart.



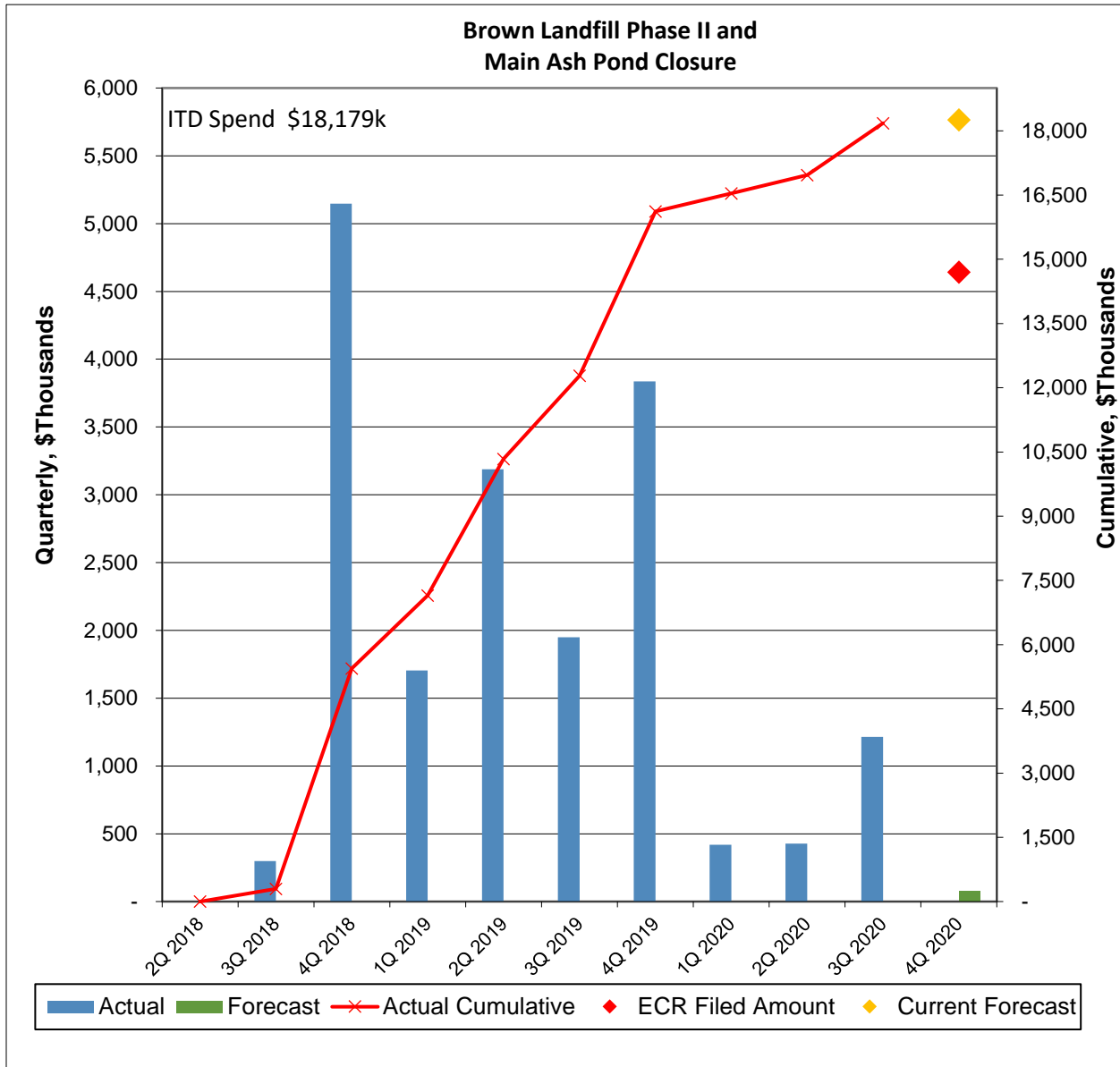
The Mercury Injection projects have been completed and commissioned. The project's total spend was \$8.7 million compared to the filed estimate of \$15.0 million.



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 cost remains \$18.3 million. Total spend through September 30, 2020 has increased from \$17.0 million last quarter to \$18.2 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

No further construction plans as these projects have been completed.

Federal CCR Rule Closure Projects

CCR Closures:

Tetra Tech will continue with Phase II & III closure activities at Ghent, as well as closure activities on the Mill Creek Main Ash Pond. Construction by Thalle will continue for the E.W. Brown Auxiliary Ash Pond closure scope focused on regrading and placement of CCRs in preparation for continued liner installation and cover soil. Regarding Trimble County, the Companies will seek to reach agreement with the KDOW on an Agreed Order on the dewatering of Trimble County's BAP. The Trimble County BAP and GSP closure projects RFQ will be ready for issuance to the market but will not be issued until the Companies reach agreement with KDOW on the BAP dewatering Agreed Order to allow for incorporation of any impacts to the plan which is currently based on the draft Agreed Order the Companies sent to the KDOW.

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 punch list and warranty items with the goal of achieving Final Completion during the fourth quarter on the Ghent PWS. 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

Thalle will reach Substantial and Final Completion of the Landfill Phase II and the closure of Phase III.