



The Metropolitan District
water supply • environmental services • geographic information

August 26, 2019

FILED ELECTRONICALLY

The Honorable Kimberly Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

RE: **Colebrook Hydroelectric Project, FERC No. 4117**
Application for Surrender of License and Decommissioning

Dear Secretary Bose:

The Metropolitan District (“MDC”), Licensee for the Colebrook Hydroelectric Project (“Colebrook Hydro Facility”) is proposing to surrender the Federal Energy Regulatory Commission (FERC) license and decommission the Colebrook Hydro Facility. This hydro facility is located at the U.S. Army Corps of Engineers’ (USACE) Colebrook River Lake Dam (CRLD) on the West Branch of the Farmington River in Colebrook, Connecticut. The Colebrook Hydro Facility has a licensed capacity of 3 MW and primarily consists of two turbine generator banks, situated at the intake of the CRLD intake tower, control equipment, and a 3.6-mile-long transmission line connecting the facility to the local utility grid. MDC is filing this application for surrender and simultaneously distributing the application to stakeholders based upon guidance from FERC Division of Hydropower Administration and Compliance (DHAC).

Several circumstances described herein led to the decision by MDC to surrender the FERC license and decommission the Project. Our analysis was triggered by an upcoming USACE project that will temporarily impact operations, and the decision ultimately is related to major maintenance interval costs of the turbines and the long-term financial viability of the Colebrook Hydro Facility.

Recently, the USACE informed MDC of its intent to proceed with a CRLD water conveyance infrastructure and sluice gate repair project. This repair project is expected to commence in September 2019 and will require an approximately 70-foot drawdown of the downstream West Branch Reservoir¹ (tailwater to the Colebrook Hydro facility) to expose the dam’s outlet infrastructure. Upon direction to proceed from the USACE, the drawdown will take approximately 35 days to achieve, and a similar amount of time to restore. The duration of the repair project during the drawdown condition has not been provided by the USACE, but scope of the work is

¹ The downstream West Branch Reservoir serves as the impoundment for the MDC’s Goodwin Dam Hydroelectric Project (FERC No. 4297) and holds a FERC exemption from licensing. Neither the Order Granting Exemption from Licensing issued on September 30, 1981 (16 FERC ¶ 61,254) nor the Order Modifying Order Granting Exemption Based issued on December 14, 1981 (17 FERC ¶ 62,422), contain any terms or conditions relative to maintaining certain water levels in West Branch Reservoir, therefore the MDC has not conducted any specific resource analysis regarding drawdown being directed by the USACE.

significant in nature and MDC expects it to be, at least, several months. MDC's Colebrook Hydro Facility cannot be operated through much of this USACE required drawdown period and repair project.

Due to the physical arrangement of the Colebrook Hydro Facility's turbine banks at the CRLD intake tower and the logistics of the USACE gate project, temporary removal of the turbine assemblies from the structure is required during the repair project. This includes disconnection and removal of all high voltage and control cables from the intake tower and removal of the turbine banks.

Recognizing that the 1988 vintage turbine assemblies are currently at the end of their projected operational life and require major maintenance, the MDC performed a due diligence assessment to determine whether or not to take advantage of the turbine removal to repair or replace the turbine assemblies. The following items were considered as part of the analysis:

- Fourteen years of the FERC license term remain, thus significant relicensing costs/efforts start in 9 years (based on FERC requirements).
- During a normal operating year (no drawdown), annual budgeted revenues are approximately \$225,000, recognizing current generation and ISO-NE market rates being realized.
- Local personal property taxes for the hydro equipment are approximately \$100,000 annually.
- MDC's operational costs for the facility, including the local personal property taxes on hydroelectric equipment described above, are nearly the same as annual revenue, and can be significantly more during sustained periods of low flow (as encountered in 2016-17), resulting in limited generation potential and reduced revenues.

Given these factors, our analysis led us to the conclusion that continued operation of the MDC's Colebrook Hydro Facility is not financially viable. In order to mitigate current and future financial, operational and project-based risks, the MDC has decided to surrender its FERC license and decommission the facility at this time.

A more detailed description of the existing Colebrook Hydro Facility and proposed action is provided in Appendix A. The Colebrook Hydro Facility is operated utilizing prescribed statutory, regulatory and legal releases from USACE's operation of the CRLD² and thus has no environmental "footprint" as is explained in Appendix B (Affected Environment).

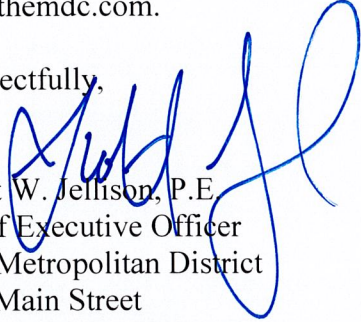
The MDC operates the Colebrook Hydro Facility under an agreement with the USACE. As a result of discussion with USACE regarding the MDC intent to decommission the Colebrook Hydro Facility, the USACE has provided required terms for decommissioning of the hydro facility, including timing and removal of all related equipment from the site and restoration of USACE control equipment to essentially pre-hydro conditions (Appendix C). Certain equipment will remain in place as requested by the USACE. The MDC has also consulted with the local utility to

² The MDC makes prescribed statutory, regulatory and legally-obligated releases from the West Branch Reservoir to the West Branch of the Farmington River. The USACE makes releases through CRLD into the West Branch Reservoir as directed by the MDC and the Connecticut Department of Energy and Environmental Protection (CT DEEP) in order to meet these release requirements.

reach a determination on the future ownership and obligations relative to the 3.6-mile transmission line (Appendix D).

The USACE anticipates commencement of the drawdown of the downstream project in September 2019. While temporary removal of the turbine banks and ancillary equipment would occur regardless of the MDC seeking surrender of the license, we respectfully request an expedited review of this application to facilitate logistical planning for permanent decommissioning of the hydropower facility and equipment. If you have any questions or additional information needs, please contact Alex Cosentino at (860) 278-7850 Ext. 3757, or via e-mail at acosentino@themdc.com.

Respectfully,



Scott W. Jellison, P.E.
Chief Executive Officer
The Metropolitan District
555 Main Street
Hartford, CT 06142

cc: Distribution List (Attached) – via email

Attachments: Appendix A – Project Description and Proposed Action
Appendix B – Description of the Affected Environment
Appendix C – USACE MDC Work Plan
Appendix D – Transmission Line Correspondence

APPENDIX A

PROJECT DESCRIPTION AND PROPOSED ACTION

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PROJECT DESCRIPTION AND OPERATION

The Colebrook Hydroelectric Project (FERC No. 4117, hereinafter referred to as the “Colebrook Hydro Facility”) is located at the U.S. Army Corps of Engineers (USACE) Colebrook River Lake Dam (CRLD) on the West Branch of the Farmington River in Colebrook, Connecticut. The Colebrook Hydro Facility has a licensed capacity of 3 MW. The Colebrook Hydro Facility works as initially defined by FERC’s Order Issuing License (Major)¹ consist of (1) trashrack at the USACE intake structure; (2) outlet conduit and portal to accommodate project flows and pressures; (3) a powerhouse at the upstream heel of the dam, with six 500 kW turbine/generators; (4) 1,160-foot-long 5-kV generator leads, a 3.75-MVA 4.16/27.6-kv transformer, and a 3.6-mile-long 27.6-kv transmission line; and (5) other appurtenances. However, the original design that included the conventional powerhouse as described in the Order Issuing License was not built due to financial reasons. The project was rebid allowing alternate technologies and a stacked turbine matrix was selected and constructed. These changes are reflected in FERC’s Order Approving As-Built². The Colebrook Hydro Facility consists of two banks of turbine/generators installed in the USACE CRLD intake tower stop log guide columns, such that they are in-line with the intake and outlet conduits. The turbine banks are not permanent in that they can be raised and lowered on the intake tower to facilitate USACE flood control operations of the conduit gates, as necessary.

The tailwater of the Colebrook Hydro Facility and the CRLD is the MDC’s West Branch Reservoir, which also serves as the impoundment for the MDC’s Goodwin Dam Hydroelectric Project (FERC No. 4297). The Goodwin Dam Hydroelectric Project holds a FERC exemption from licensing.

The Colebrook Hydro Facility is operated to utilize flows as required for the operation of the Farmington River by MDC and the Connecticut Department of Energy and Environmental Protection (CT DEEP), or as required by USACE for flood management purposes. These prescribed regulatory, statutory and legally-obligated flow releases include:

- A minimum flow of 50 cubic feet per second (cfs) at all times
- All natural flows between 50 cfs and 150 cfs
- All flows released from the upstream Otis Reservoir
- MDC riparian obligations, as requested by the riparian rights holder
- CTDEEP flow releases to protect downstream fisheries in the West Branch of the Farmington River
- USACE flood management and control releases

PROPOSED ACTION

Recently, the USACE informed MDC of its intent to proceed with a CRLD water conveyance infrastructure and sluice gate repair project. This repair project is expected to commence in

¹ Issued March 27, 1984 (26 FERC ¶ 62,293)

² Order Approving As-Built Exhibits A, F, and G, Amending License and Revising Annual Charges, issued February 8, 1989 (46 FERC ¶ 62,138)

September 2019 and will ultimately require an approximately 70-foot drawdown of the downstream West Branch Reservoir (tailwater to the Colebrook Hydro Facility) to expose the dam's outlet infrastructure. Upon direction to proceed from the USACE, the drawdown will take approximately 35 days to achieve, and a similar amount of time to restore. The duration of the repair project during the drawdown condition has not been provided by the USACE, but scope of the work is significant in nature and MDC expects it to be at least several months.

In anticipation of the sluice gate repair project, USACE conducted a bulkhead (stop log) installation test on May 29, 2019 to confirm that the CRLD outlet channels could be successfully isolated upstream of the intake tower gate chamber. As the bulkheads are made to be installed in the guide columns, the MDC turbine/generator assemblies and associated electrical interconnections had to be removed from the guide columns in order to conduct the test. The turbine banks and cables are currently being stored at an MDC facility, in the event that FERC does not approve the surrender of license. Should FERC grant the surrender, generating equipment will be disposed of or recycled as appropriate.

The remaining infrastructure for operation of the Colebrook Hydro Facility will be removed pursuant to USACE requirements, to largely return the CRLD facility back to pre-hydropower conditions. Certain equipment will remain in place as requested by the USACE, including but not limited to:

- Intake tower 22-ton crane
- Intake tower service platform including lighting and access ladders
- Ice control aeration / air bubbler system

The MDC is currently awaiting final direction from the local utility regarding the 3.6-mile transmission line. It should be noted that the transmission line serves other customers in addition to the MDC.

APPENDIX B

DESCRIPTION OF THE AFFECTED ENVIRONMENT

DESCRIPTION OF THE AFFECTED ENVIRONMENT

The affected environment for the surrender of the Colebrook Hydroelectric Project (FERC No. 4117, hereafter referred to as Project or Colebrook Project) is minimal as the Project has essentially no environmental footprint. Aside from the 3.6-mile transmission line, the project is located mainly within U.S. Army Corps of Engineers (USACE) structures and dam site (Figure 1), which will remain in place. No significant modifications to the Colebrook River Dam will be needed. The generation, operating, and transmission components of the Project, aside from the transmission line that will remain, will be removed in its entirety.

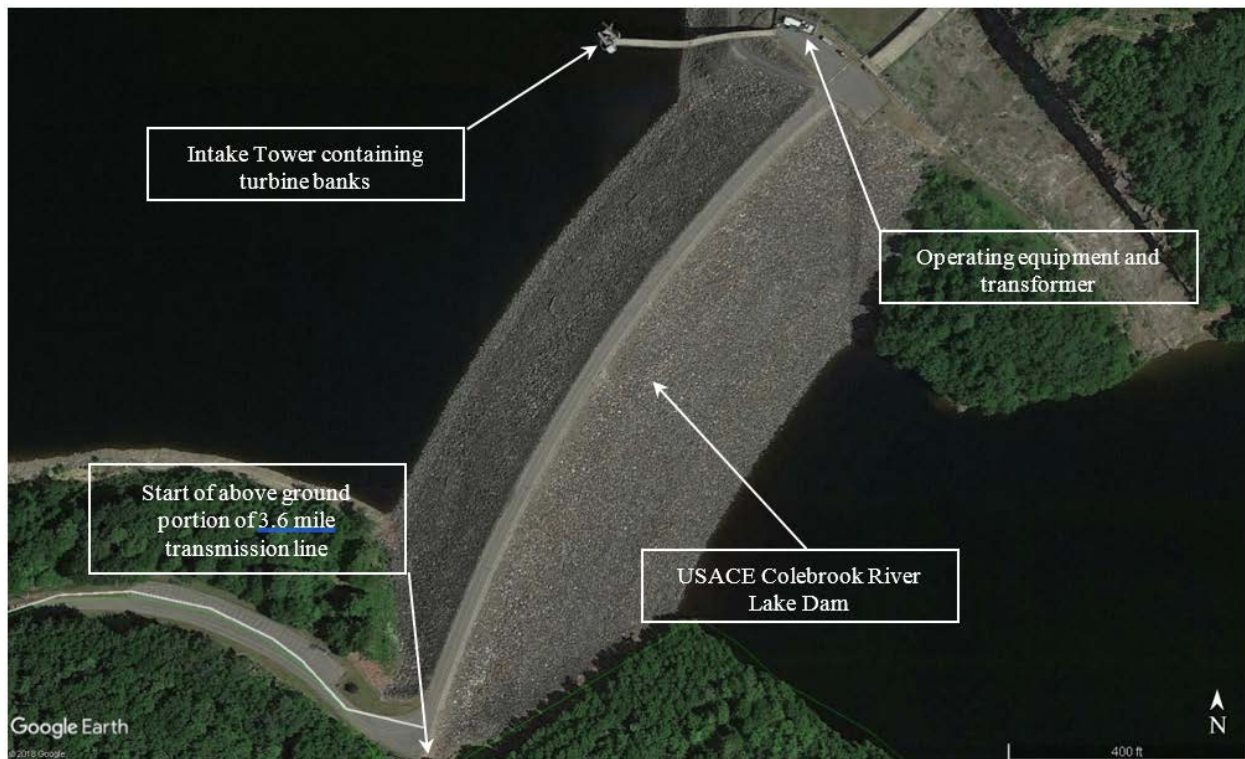


Figure 1. Colebrook Hydroelectric Project Features

WATER QUALITY AND QUANTITY

The Project is currently operated under the prescribed regulatory, statutory and legally-obligated flow release requirements for the Farmington River. The USACE releases water from Colebrook Lake as directed by the MDC or the Connecticut Department of Energy and Environmental Protection (CT DEEP), or as required by USACE for flood management purposes. It is anticipated that the USACE will continue to operate in the same manner as described in Appendix A (Project Description and Operations), which provides for regulated operation of the Farmington River, flood risk management, and periodic releases at the direction of CT DEEP for the protection of fisheries and habitat in the West Branch of the Farmington River. Therefore, surrender and decommissioning of the Project will have no adverse effects on water quality and quantity.

The USACE’s gate repair work at the Colebrook River Lake Dam (CRLD) will require an approximately 70-foot drawdown of the MDC’s West Branch Reservoir (tailwater to the Colebrook Hydro facility) to expose the dam’s outlet infrastructure and allow the USACE to dewater the outlet works. The West Branch Reservoir serves as the impoundment for the MDC’s Goodwin Dam Hydroelectric Project (FERC No. 4297), which holds a FERC exemption from licensing.

FISH AND WILDLIFE RESOURCES

Fish and wildlife resources will not be adversely affected by the surrender and removal of the Colebrook Hydro project. Removal of project equipment will occur entirely on and within USACE dam structures, will require no new land disturbing activities or vegetation clearing.

THREATENED AND ENDANGERED SPECIES (REQUEST LIST FROM NMFS AND USFWS)

There is one Federally-listed endangered animal species identified in the CRLD area according to the IPaC report, obtained on April 19, 2019:

SPECIES COMMON NAME	SCIENTIFIC NAME	ENDANGERED/THREAT ENED
Northern Long-eared Bat	<i>Myotis septentrionalis</i>	Federally-listed Threatened

Because no tree cutting or clearing will occur associated with decommissioning and removal of the Project equipment, these species will not be adversely affected.

WETLANDS, CRITICAL HABITATS, OR SIGNIFICANT FEATURES

According to the National Wetlands Inventory (Figure 2), there are two wetland classifications listed in the general affected area (L1UBH and L2USC), however, the surrender and decommissioning project will not impact or alter the wetland. These wetlands are associated with the permanently flooded Colebrook River Lake.

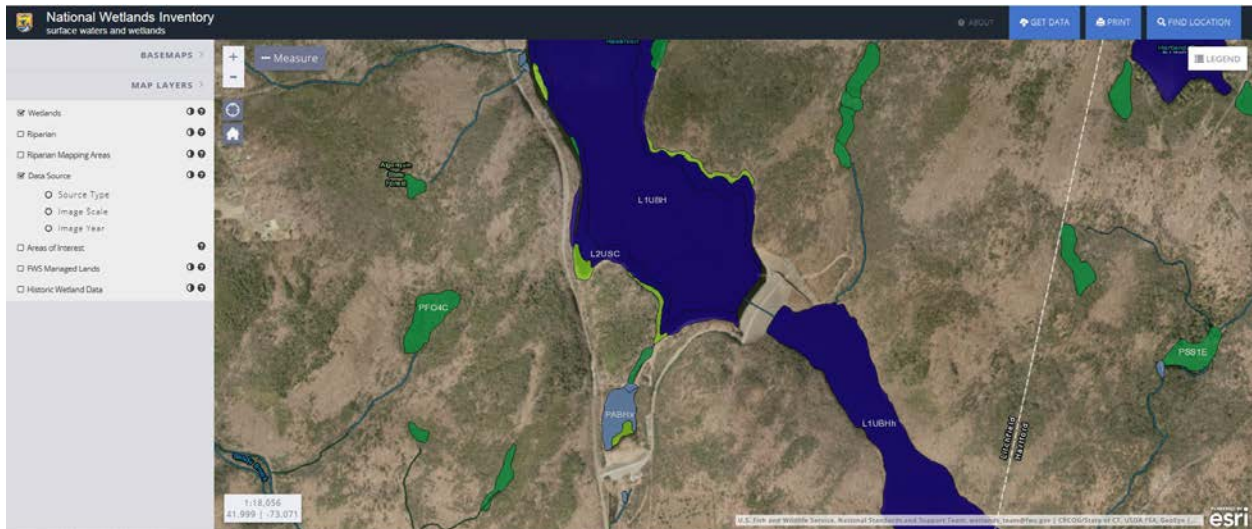


Figure 2. NWI Mapping in the Project area (2019).

CULTURAL AND ARCHAEOLOGICAL RESOURCES

There will be no ground disturbing activities associated with the Project decommissioning and removal, nor any modification to CRLD structures that would cause adverse effects. There are no archeological or historic sites listed or eligible in the National Register of Historic Places (NRHP) that would be impacted or affected by removal of the Project. The NRHP listed Colebrook Center Historic District which consists of the main village of Colebrook, CT, is over three miles (straight line) from CRLD.

SCENIC QUALITY

The removal of the circa 1988 generation, operation, and transmission equipment will not adversely affect the scenic character of the area and may actually benefit the CRLD by removing the metal building, electrical substation and switchgear, and chain link fencing adjacent to the parking area.

EXISTING RECREATION FACILITIES AND USES

There are no formal or informal recreation facilities directly associated with the Hydroelectric Project. USACE maintains the Colebrook River Lake Dam Access Road and boat launch, which will not be affected by removal of the Colebrook Hydro generating, operations, or transmission equipment.

APPENDIX C
USACE MDC WORK PLAN

WORK PLAN
Colebrook River Lake and Dam
Metropolitan District Commission/ United States Army Corps of Engineers
Sluice Gate Repair Project
May 2019

1. MOTIVATION

The United States Army Corps of Engineers (USACE) informed the Metropolitan District (MDC) of its intent to proceed with a water conveyance infrastructure and sluice gate repair project (repair project) at the jointly-operated Colebrook River Lake Dam (CRLD) in Colebrook, Connecticut. In order to conduct this project, USACE has requested access to jointly operated infrastructure at the CRLD and lowering of the adjacent MDC West Branch Reservoir.

2. WORK PLAN OBJECTIVES

The objective of this work plan is to document the actions needed to allow USACE to conduct the aforementioned gate repair project. Given that the MDC is a partner with USACE in both the operation of CRLD and in coordinating reservoir releases to the Farmington River, this Work Plan includes the following components:

- USACE gate repair project
- Removal of MDC Hydroelectric Equipment

3. CURRENT USACE GATE REPAIR PROJECT

In order to conduct the water conveyance repair project, USACE has requested that the MDC draw down its West Branch Reservoir approximately 70-feet in order to provide access to the CRLD outlet tunnel. This drawdown takes approximately 35-40 days to achieve as the MDC limits reservoir draw down to 2-feet per day for dam safety reasons, and a similar duration to restore. The project duration during the drawdown state is expected to last 90 days, but this number may change based on the contractor's progress.

USACE will provide the following notice to the MDC in advance of the required draw down:

- Notice to Proceed (NTP) upon issuance to contractor
- Contractor's Initial Project Schedule following approval from USACE (including expected date to initiate pool lowering)
- Contractor submission of 'Written request for Lower Pool Level' (Upon receiving the request, MDC and USACE will initiate pool draw down within seven calendar days, unless the contractor's requested date is more than seven days in the future.)

4. REMOVAL OF MDC HYDROELECTRIC EQUIPMENT

4.1 Hydraulic Systems

Flow isolation for each MDC turbine assembly is provided using the emergency sluice gate in that assembly's respective channel. The MDC installed separate hydraulic controls on Emergency Sluice Gate No. 1 and No. 2 for this purpose.

In order to facilitate the USACE gate repair project, hydraulic operation of these two gates will be turned over to USACE for the duration of the project. This will be accomplished through removal of the MDC hydraulic piping, and re-plumbing the hydraulic gate operators (cylinders) to the USACE hydraulic system to provide USACE with control of the hydraulic system. This work will be conducted by a hydraulic contractor retained by the MDC following the bulkhead test and will be completed before the West Branch Reservoir is lowered to facilitate the repair work at Colebrook Dam.

5. RESERVOIR FLOW MANAGEMENT

Reflecting suspension of hydroelectric operations on 5/1/2019 to facilitate the equipment removal schedule outline above, reservoir releases are now being facilitated by USACE. USACE will assume control of all six gates during the duration of the gate repair project and will be responsible for maintaining and releasing flows until January 1, 2020.

5.1 USACE flood control requirements:

Current flood control management is generally summarized as follows:

- USACE manages storage capacity in CRL to provide flood protection to downstream communities during periods of heavy inflow.
- MDC hydroelectric operations and all flow releases except 50 cfs minimum are suspended at the Goodwin Dam when the Farmington River is under flood conditions at Farmington and Simsbury.
- Storage space is made available for Spring Freshet, accounting for winter snow pack and predicted snow melt via accelerated releases when necessary.

Management: USACE will continue to operate for flood control in accordance with the Colebrook reservoir standard operating procedures. USACE will maintain flows requested by the MDC up to 500cfs during the repair project.

6. IMPACTS OF USACE GATE REPAIR PROJECT ON THE MDC HYDRO OPERATION

As previously mentioned, due to the physical arrangement of the MDC turbine/generator assembly banks' installation at the CRD intake tower and the logistics of the USACE bulkhead test and gate repair project, complete removal of the MDC turbine assemblies from the structure will be required. This includes disconnection and removal of all high voltage and control cables from the intake tower. The process requires significant manpower and coordination and is a laborious effort in itself. Accordingly, MDC hydro operations cannot be conducted through much of this foreseen project.

Recognizing that the 1988 vintage turbine/generator assemblies are currently at an age requiring major maintenance work and significant capital investment, the MDC performed a life cycle cost analysis to determine whether or not to take advantage of the pending turbine removal to repair or replace the turbine assemblies. The life cycle analysis determined that the expected timeline to recover the costs that would be necessary to keep operating the hydro facility was greater than fifty years and thus unacceptable to the MDC. Therefore, the MDC has decided to decommission hydroelectric generation operations at this time.

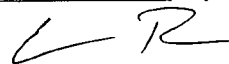
6.1 Crane

The initial dam construction included a monorail crane located above the guide columns to facilitate stop log placement. A 22-ton crane was installed on the roof of the control tower when hydroelectric operations began at CRLD in 1988. In 2000, the original monorail was irreparably damaged. Instead of replacing the monorail crane, USACE and MDC determined the 22-ton could be modified to meet both hydroelectric operations and stop log functionality at a significantly lower cost than replacing the monorail crane. The 22-ton crane has been available for both USACE and MDC operations since that time. When MDC is ready to remove its power supply for the crane, the power connection for the crane will be reconnected to the USACE power source.

7. WORK PLAN ACCEPTANCE

IN WITNESS WHEREOF, the parties hereto have agreed to this Work Plan as of this

16 day of June 2019.


Eric Pedersen, Chief, Operations Division
THE UNITED STATES OF AMERICA
ARMY CORPS OF ENGINEERS


SCOTT W. JELLISON, P.E., CHIEF EXECUTIVE OFFICER
THE METROPOLITAN DISTRICT
IN HARTFORD COUNTY, CONNECTICUT

8. EMERGENCY CONTACTS LISTING

MDC MAIN NUMBER is 860-278-7850

All extensions (EXT) are accessed via the MDC main number.

MDC 24-HR EMERGENCY COMMAND CENTER:

(860) 513-3488 or (860) 278-7850 EXT 3600

Metropolitan District			
Name	Title	Telephone	e-mail
Jim Randazzo	Manager of Water Treatment & Supply	860-818-7189 CELL x 3104 EXT	jrandazzo@themdc.com
Ray Baral	Assistant Manager of Water Treatment	860-985-6893 CELL x 3924 EXT	rbaral@themdc.com
Alex Cosentino	Construction Manager	860-539-5685 CELL x3757 EXT	acosentino@themdc.com
Tim Anthony	Hydroelectric Supervisor	860-818-7997 CELL X3131 EXT	tanthony@themdc.com
Tom Tyler	Director of Facilities	860-209-1751 CELL x 3511 EXT	ttyler@themdc.com
Susan Negrelli	Director of Engineering	860-985-6600 CELL x 3815 EXT	snegrelli@themdc.com
Chris Levesque	Chief Operating Officer	860-480-1933 CELL x 3113 EXT	clevesque@themdc.com
Hank Martin	MDC Chief of Police	860-818-5206 CELL x 3930 EXT	hmartin@themdc.com

United States Army Corps of Engineers			
Name	Title	Telephone	e-mail
Chris Way	Operations Manager	203-758-1723 OFFICE 203-509-9702 CELL	Christopher.D.Way@usace.army.mil
John Haluchak	Project Manager	978-318-8439 OFFICE 860-681-1039 CELL	John.A.Haluchak@usace.army.mil
Eric Pedersen	Deputy Chief, Operations		Eric.C.Pedersen@usace.army.mil

APPENDIX D

TRANSMISSION LINE CORRESPONDENCE

MDC The Metropolitan District



To: David Maule
Eversource/CL&P Engineering

Date: 6/21/2019

From: Tim Anthony
MDC Hydroelectric Supv.

CC: JR, AC, BA

Subject: Colebrook Hydroelectric
Circuit Infrastructure

File:

Mr. Maule,

In reference to the MDC initiative to fully decommission the Colebrook Hydroelectric facility located at 426B Colebrook River Rd, Colebrook CT, a response to the following inquiry is requested for MDC to submit to F.E.R.C., associated with the intent to surrender the F.E.R.C. hydroelectric license.

As the circuit infrastructure build from Eno Hill Rd to Colebrook Dam/Hydro (One line "Ref. 1") was authorized by the associated F.E.R.C. license, MDC is obligated to provide to F.E.R.C. the utility perspective on the circuit infrastructure status going forward.

Also related to above, the Army Corps has requested that the primary underground cables across Colebrook Dam (One line "Ref. 2") be removed from the conduits. Could you please indicate your position as to whether they would be removed by Eversource or by an MDC contractor when electrical service to the site is requested to be terminated?

We would appreciate your timely response, so as to facilitate our required submittals to F.E.R.C. for their review.

Please see below my contact information for your reference and response.

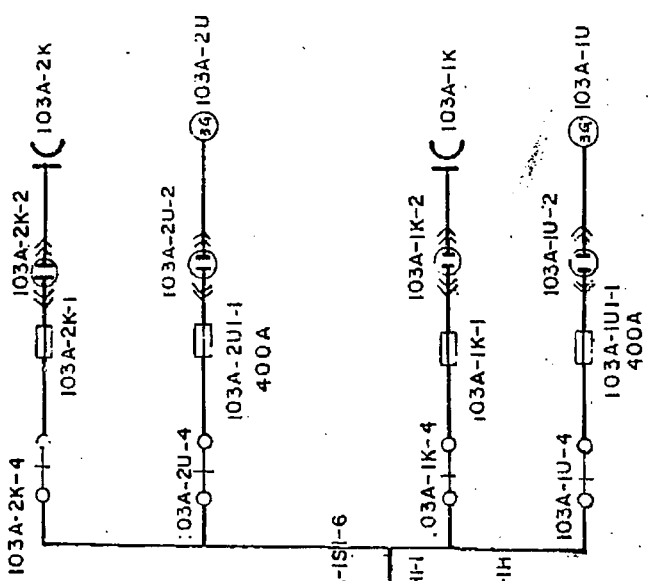
My best regards,

Tim Anthony
MDC Hydroelectric Supv.
MDC Supply HQ's
39 Beach Rock Rd.
Pleasant Valley, CT 06063

Office-(860) 379-6925

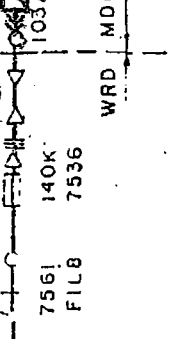
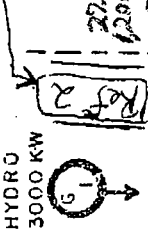
Cell- (860) 818-7997

Email- tanthony@themdc.com



Underground Cables

COLEBROOK RIVER DAM 103A



WRD MDC

SWITCHING JURISDICTION

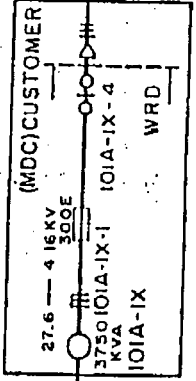
103A-2H
 CLBP METERING

HYDRO 3000KW



10 KVA
 59N RELAY
 7476
 F2N2

CUSTOMER OWNED FROM 101A-IX
 (EXCEPT FOR METERING TRANS)



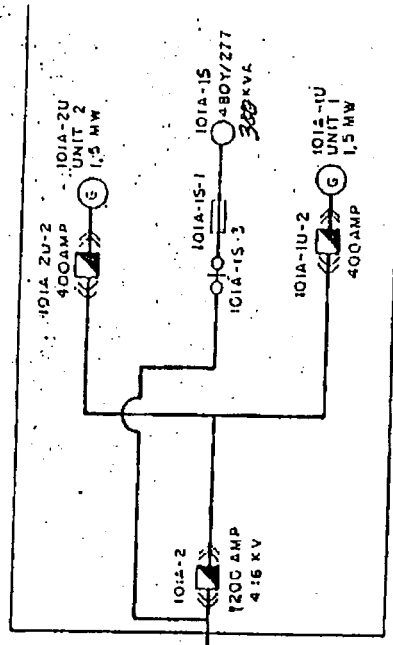
OUTDOOR SUBSTATION

OLD PENT RD
 F2N2
 100K
 7477
 101A-5

7482
 DURST RD.
 F2N2

14R80 - (Circuit designation changed)

560A
 S-1047
 RT. 8
 N. OF
 CREAMERY RD.



POWER PLANT
 GOODWIN 101A