

Staff Report

for the Engineering Committee Meeting of July 14, 2020

TO: Engineering Committee
FROM: Doug Roderick, P.E., Engineering Manager
DATE: July 7, 2020
SUBJECT: Project Status Report

ENGINEERING

RECOMMENDATION:

Review the Engineering Department Project Status Report with the Committee.

BACKGROUND:

This item is to provide information to the Committee members regarding the progress, current status and next action to be taken on the projects in process in the Engineering Department.

BUDGETARY IMPACT:

No budget impact

DR

Attachment:

- Engineering Department Project Status Report

Engineering Department Project Status

<u>Prty</u>	<u>Proj Mgr</u>		<u>Facility Name</u>	<u>WO#</u>	<u>Description</u>	<u>Status</u>	<u>Comments</u>
02 - PIPELINE REPLACEMENT (\$1,500,000) 10151-52907							
01	ADRIAN SCHNEIDER	2019	CalTrans Hwy 174 Pipeline Relocation (DIV 2)	2423	Relocation of 519.12 LF of 10" and 48.53 LF of 8" treated waterlines in the CalTrans right-of-way to accommodate CalTrans storm water work and roadway realignment on Hwy 174	Closeout	Construction and paving complete, Notice of Completion recorded 6/5/2020. Project will be removed from future project status reports.
02	ADRIAN SCHNEIDER	2019	Long Ravine Campground (DIV 2)	2270	Replacement of existing 50-year old system with approximately 7460 LF of 1 1/2", 3" and 4" pipe. Also replacing failing concrete storage tank and filter system.	Closeout	Project complete. Will be removed from future project status reports.
03	DOUGLAS RODERICK	2020	Lidster Avenue & Country Club Terrace (DIV 5)	2071	Replacement of deteriorated water mains and services in this area. 4,545 LF of 8" pipe.	Construction	Construction is underway. Work being performed by Maintenance.
04	TONIA TABUCCHI HERRERA	2020	Christian Life Way at Highway 49 (DIV 5)	6962	Replace approximately 1500 LF of pipeline with 8" pipeline. Existing pipeline is undersized; has reached its useful life, is difficult to access, existing ROW is inadequate, requires new route for accessibility	Design	Design 10%. Survey is complete.
05	TONIA TABUCCHI HERRERA	2020	Rough & Ready Round-a-bout waterline improvements	2497	Nevada county proposed to realign Rough and Ready Hwy, Ridge Road and Adams Ave. NID affected facilities included treated water line along Rough and Ready HWY and Adams Ave; and Rough and Ready Canal crossing/near Ridge Road. (Div. 5)	Planning	Internally reviewing draft layout for relocation of treated and raw water facilities. Discussions needed with County regarding the future ROW need. Discussion will be needed regarding who will be doing the relocation. County design of round about at 65% with construction Summer 2021.
06	DOUGLAS RODERICK	2020	Apple Ave & Annex Ave Pipeline Replacement	2492	Replace deteriorated water mains, service lines, and fire hydrant laterals in this area prior to the City of Grass Valley performing its planned road restoration	Construction	Maintenance performing construction of pipeline.
03 - PRV REPLACEMENT (\$160,000) 10151-52908							
01	TONIA TABUCCHI HERRERA	2019	Cedar Ridge PRV Replacement (DIV 2)	2366	Existing PRV station is badly deteriorated with valves in a vault. Replacement station will be above ground. Additional ROW is required	Design	Design 90%. Property owner to be contacted regarding existing easement; easement adjustment is required.
02	TONIA TABUCCHI HERRERA	2019	East Ridge PRV Replacement (DIV 1)	2318	Existing PRV station is badly deteriorated with valves in a vault. Replacement station will be above ground. Additional ROW is required.	Design	Design 10%. Survey is complete. Existing easement information received.
03	DOUGLAS HOBBS	2020	Berggren Lane PRV Replacement (DIV 1)	2370	Replace PRV with 8" pipe connecting Red Dog Rd. with Jasper Agate Court	Design	Design at 90%. In process of obtaining easement.
05 - RAW WATER SYSTEM IMPROV (\$2,100,000) 10151-52910							
01	DOUGLAS RODERICK	2019	Doty North Canal (PC) (DIV 4)	1031	Doty North canal which will encase approximately 450 feet of canal and replace siphon #1.	Design	Application to CDFW has been submitted, waiting for response from CDFW. Working on design and temporary easements. Construction scheduled for fall of this year.
02	DOUGLAS HOBBS	2020	Santini Siphon 1 (DIV 4)	1098	Replacement of undersized Siphon with 1500 LF of 18" pipe.	Design	Evaluation for easement acquisition. Meeting with property owners on July 7, 2020. Design at 50%.
03	DOUGLAS RODERICK	2020	South Yuba Canal Repair & Upgrades Ph 1 (DIV 1)	2419	Repair/Replace segments of So. Yuba Canal	Planning	Maintenance logs, notes, and pictures given to GHD. Site visits still to be determined due to COVID-19, but anticipated by late July 2020.
04	DOUGLAS HOBBS	2020	Hayt Canal Siphon Replacement Div. 4	2474	Hayt Canal Siphon #1 and #6, replace aged infrastructure.	Planning	Evaluating Siphon #1 and upstream canal capacity. Maintenance planning project construction starting October 15, 2020.
06 - BACKBONE EXTENSION (\$1,700,000) 10151-52911							
01	TONIA TABUCCHI HERRERA	2020	E. George to LWW Pipeline Project-Phase I (DIV 5)	2255	Phase I will replace two existing PRVs and install approximately 8653 of 18" pipeline. Replacement PRVs will be above ground and will require ROW. Construction of the pipeline is within County ROW.	Design	Offer package to property owner for Twin Cities Church. Board authorized bidding of Phase 1 of project on May 27, 2020. Staff considering construction of improvements within existing infrastructure first, while working on ROW.

Prty	Proj_Mgr		Facility Name	WO#	Description	Status	Comments
07 - NON-PROGRAMMATIC (5,850,000) 10151-52915							
01	DOUGLAS RODERICK	2021	Combie I Replacement	6746	Combie Phase 1 Pipeline Bypass, 8900 LF of 96" pipe	Construction	Contractor pulled off of site. Will be back onsite in September to start bypass work in preparation of starting phase II construction in October.
02	DOUGLAS RODERICK	2021	Centennial Water Supply Project	7013	Centennial Water Supply Project	Planning	Quarterly update to be presented at the June 9th Engineering Committee. Due to COVID-19, no consulting work or AB52 consultation has taken place since the last update.
03	DOUGLAS HOBBS	2020	Alta Sierra Tank Replacement (DIV 2)	6971	Replace existing Alta Sierra Hypalon-covered reservoir with 3MG storage tank	Design	Design underway. Construction to begin October 2020.
04	ADRIAN SCHNEIDER	2020	North Auburn Treatment Plant (DIV 3)	2376	Upgrade of high lift pumps at North Auburn Water Treatment Plant	Planning	Contract for designing of generator and motor control awarded to A.T.E.M. on 6/12/2020. Kick off meeting scheduled for 7/1/2020. Design/RFQ expected by September 2020. Second RFQ to be sent out to contractors for purchase and installation of generator and motor control items. Generator install expected winter of 2020/2021.
05	ADRIAN SCHNEIDER	2020	Pine Woods Pump Station	2488	Design, purchase and install a permanent stand-by generator at Pine Woods Pump Station	Planning	Draft study under review
08 - COMMUNITY INVESTMENT (\$800,000) 10151-52912							
01	ADRIAN SCHNEIDER	2019	Iron Horse DFWLE (DIV 3)	1019	Construction of 7,206 LF of 8" pipeline along Armstrong Rd., Iron Horse Drive & Brewer Road.	Closeout	Construction and paving completed. Notice of Completion sent for recording 6/25/2020. Project will be removed from future project status reports
02	ADRIAN SCHNEIDER	2020	Table Meadow Ph 2 DFWLE (DIV 3)	2180	Assist, Design and Construction of 5,770 LF of 8" pipeline for existing neighborhoods approved by Engineering Committee.	Design	Trenching began June 23. Majority of work is anticipated to be completed before September 2020.
03	ADRIAN SCHNEIDER	2020	Loma Rica Drive - DFWLE	2181	Assist, Design and Construction of a pipeline for existing neighborhoods approved by Engineering Committee.	Planning	.
04	ADRIAN SCHNEIDER	2020	Maranatha Place DFWLE	2409	Assist, Design and Construction of a pipeline for existing neighborhoods. Approved by Engineering Committee Aug 20, 2019.	Planning	Approved by Engineering Committee August 20, 2019 to be placed on the list. Waiting for available funding in program to move forward.
10-1 - HYDRO NON-PROGRAMMATIC (\$250,000) 50112-52915							
01	KEANE SOMMERS	2019	New Hydro Office Property Development	2084	New Hydro Office Property Development	Design	Award contract to WLC on December 11, 2019. A preliminary update has been received and is in review. Energy Center components are under development. Solar generation plant sizing and siting are nearly complete. Carbon sequestering forest concept is drafted. Pumped storage concept is drafted. Energy and Hydro maintenance facility plan are to be completed during the summer of 2020.
02	KEANE SOMMERS	2020	HYDRO HQ	2405	Hydro Radio Tower	Design	Awarded a contract to IEC on May 5, 2020 to study communications paths for the new location. IEC has identified two possible locations for a tower on the new Hydro Office property and will be sending those points to confirm access is available for construction.
10-2 - HYDRO POWERHOUSE IMPROV (\$1,585,000) 50112-52920							
01	NATHAN DROIVOLD	2020	Dutch Flat #2 Powerhouse Balance of Plant.	2348	Install an expandable balance of plant to monitor critical plant systems such as excess vibration of the turbine and generator, temperature, and flow.	Design	Design contract was fully executed with d'Heurle Systems on May 1, 2020. Equipment purchase request was approved by the APC on May 5, 2020 and a purchase order was sent to d'Heurle Systems to start material procurement on May 11, 2020. The BOP-PLC will be installed during the 2020 annual outage in September/October.
02	NATHAN DROIVOLD	2020	Chicago Park Powerhouse Governor Replacement	2402	Replace governor, install instrumentation that will enable operators to monitor flow, temperature, and pressure of vital powerhouse components.	Planning	Hydro received and reviewed a 90% Cooling Water Upgrade Design with its consultant Mead & Hunt on May 4, 2020. Hydro will review the design and order materials in 2020, and will complete installation during the 2021 annual outage for CPPH.
03	ADRIAN SCHNEIDER	2019	Combie Reservoir	6943	Combie South Access Road. Develop approx. 3,000 ft. from south abutment.	Planning	WHO Committee directed Hydro to pursue constructing a new access road using the second alternative route identified by Nevada City Engineering on May 20, 2020. Project transferred to Engineering June 2, 2020
04	ADRIAN SCHNEIDER	2019	Chicago Park Fire Suppression System (DIV 2)	2164	Upgrade of existing CO2 system (piping, alarms, sensors) to protect Generator. Includes installation of new Clean Agent suppression system for control room and the addition of a fire detection system for electrical cable trays.	Design	Sabah conducted site visit on June 22 to measure distances and assess the changes to incorporate into the revised design of the system. District to receive revised design drawings for review and to finalize design. Installation anticipated before and during the September 2020 facility outage.

Engineering Department Project Status

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10-2 - HYDRO POWERHOUSE IMPROV (\$1,585,000) 50112-52920							
05	THEODORE BLANK	2019	Combie South Electrical Upgrades	2168	Combie South Electrical Upgrades	Design	Hydro purchased the new 12kV transformer, which is expected to be delivered in late 2020. Hydro has completed electrical drawing consolidation with Mesa and expects to receive an updated drawing set by the end of June.
06	THEODORE BLANK	2019	CSPH - Replace Switchgear/ISO Meter	2210	CSPH - Replace Switchgear/ISO Meter	Closeout	CAISO meter has been installed at CSPH. Project ready for close out. Will be removed from future project status reports.
07	PHILIP NEDVED	2019	Bowman Governor	2234	Replace and integrate with BoP PLC.	Design	The new digital governor was installed and commissioned on June 12, 2020. Hydro is awaiting commissioning records and final deliverables for the project.
08	NATHAN DROIVOLD	2020	Dutch Flat #2 Powerhouse Fire Supression System	2240	Designing, installing and commissioning a new CO2 fire suppression system for the Dutch Flat #2 Powerhouse.	Planning	Hydro has received a letter proposal to define the project scope from GHD. Hydro is preparing a sole-sourced contract to complete a 30% design, and will then prepare a Project Definition Memo to transfer the project over to Engineering in the summer of 2020.
09	DARYL NOEL	2020	Deer Creek Powerhouse	2290	Deer Creek Powerhouse Upgrades - Cost of upgrades necessary to sell power upon close of sale	Hold	Hydro operations has purchased equipment. Hydro is moving forward with the installation of the control panel in DCPH. Next Hydro is coordinating the installation of a fiber optic cable between DCPH and E George Treatment Plant, gaging stations on conveyance from E George to DCPH, and an ANIRA box at E George, in order for DCPH to be operated remotely by NCPA.
10	NATHAN DROIVOLD	2020	Rollins Powerhouse	2351	Replace the existing oil circuit breaker (OCB) at the Rollins Powerhouse with a more environmentally acceptable vacuum circuit breaker.	Planning	Hydro has contacted the vacuum circuit breaker manufacturer, Hitachi, to hear a presentation and learn more about vacuum breakers and their performance history in late June. Hydro will then make a site visit to RPH to confirm the suitability of a vacuum circuit breaker for the site, and will then decide whether or not to pursue purchasing a vacuum circuit breaker for the project.
11	NATHAN DROIVOLD	2020	Bowman Intertie	2354	Replace the existing Bowman Inter-tie SF6 breaker with a more environmentally friendly vacuum circuit breaker	Hold	Hydro may replace the existing oil circuit breaker with a vacuum circuit breaker based on the decision made for the oil circuit breaker replacement at RPH (FATR 2351). This project is on hold until that decision has been made.
12	THEODORE BLANK	2020	Scotts Flat Powerhouse	2306	Install all components necessary for a backup usage electrical meter for Scotts Flat Powerhouse	Planning	Hydro is no longer installing a CAISO meter following negotiations with PG&E. Hydro will instead install a backup usage meter and will request a quote to purchase.
13	NATHAN DROIVOLD	2020	Rollins Powerhouse Balance of Plant	2393	Install an expandable balance of plant to monitor critical plant systems such as excess vibration of the turbine and generator, temperature, and flow.	Planning	Hydro will define the project scope and request bids to complete the design in 2020. The design will be completed in 2021, and installation will be during the 2021 annual outage at RPH.
14	NATHAN DROIVOLD	2020	Rollins Powerhouse Relay Protection Upgrade	2394	Replace aging relay protection system to improve protection of the powerhouse relay, transformer, and generator.	Hold	Hydro is defining the project scope and preparing the Project Definition Memo. The scope will be dependent on the RPH OCB replacement (FATR 2351) as the breaker manufacturer will need to provide relay protection inside of the new breaker. Project is on hold until the breaker is ordered.
10-3 - HYDRO DAM & WATER IMPROV (\$1,595,000) 50112-52921							
01	MIN CHEN	2020	Scotts Flat Spillway Repair	2094	Scotts Flat Spillway Repair & Upgrades	Planning	The Spill Crest Stability Analyses Report is being reviewed by DSOD. The physical hydraulic modeling plan is being reviewed by DSOD and FERC. Additional funding with Board approval is necessary for the modeling studies.
02	MIN CHEN	2019	Combie Abutment Scour	20140 2	Dam stabilization, abutments protection against scouring, and water supply upgrade	Planning	Detailed geologic mapping has been completed and is being evaluated by a specialty consultant for scour potential in the groins. Then alternatives development will follow.
03	MIN CHEN	2020	Jackson Lake Spillway	2361	Improve spillway training walls on the Jackson Lake Dam	Design	The in-house design is being reviewed by DSOD and FERC. The construction RFQs is being finalized. The construction is planned for September to October 2020.
04	MIN CHEN	2020	Gaging Station	2007/ 2360	Replace the damaged sections of the concrete lining on the upstream dam face to minimize leakage, modify the spillway training walls to prevent over topping, and construct a weir on the dam outlet to measure flow.	Design	The French Dam Upgrades design is nearly completed, and will be submitted to FERC for review and approval. The construction is scheduled from August to October 2021.
10-4 - HYDRO LOWER DIV(\$450,000) 50112-52922							
01	MIN CHEN	2020	Chicago Park Canal Liner Replacement	TBD	Repair segments of the Chicago Park Canal where existing shotcrete liner needs replacement.	Planning	Hydro is defining the project scope and preparing the Project Definition Memo.

Engineering Department Project Status

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10-5 - HYDRO UPPER DIV (\$200,000) 50112-52923							
01	DARYL NOEL	2020	Rucker Creek Spillgate	2339	Replace existing radial gate at Rucker Creek Diversion with an overshot gate to improve personnel safety and operational performance.	Planning	Hydro is reviewing and updating the project scope and will prepare a Project Definition Memo to send the project over to Engineering.
02	NATHAN DROIVOLD	2020	Bowman-Spaulding Canal	2340	Re-establish driving access to the upstream portal of the Clear Creek Tunnel, design and install a bar screen to prevent debris from plugging the tunnel, and perform a canal condition assessment to identify and prioritize repairs or replacements	Planning	Hydro will be seeking a study with an alternatives analysis for possible options to complete the repair of the access road/berm.
10-6 - HYRDO SCADA/COMMS (\$265,000) 50112-52924							
01	THOMAS KLUGE	2020	Dutch Flat Forebay/Dutch Flat #2 Powerhouse	2355	Install fiber optic communication between Dutch Flat Powerhouse and Dutch Flat Forebay	Construction	Hydro has received quotes for the installation from IDF. Contracts were fully executed on May 14, 2020, and the installation will be completed in July 2020.
02	THOMAS KLUGE	2020	Chicago Park Flume	2389	Install fiber optic communication between Chicago Park HVP and Chicago Park intake	Planning	Hydro working on soliciting a study to determine the project scope and costs to install either a fiber optic cable or microwave/radio system.
03	THOMAS KLUGE	2020	Dutch Flat #2 Powerhouse	2390	Install fiber optic communication between Dutch Flat Forebay and PG&E Drum Afterbay to improve reliability.	Planning	Hydro working on soliciting a study to determine the project scope and costs to install either a fiber optic cable or microwave/radio system.
13 - ENGINEERING O&M 10151-NA							
01	GREG JONES	2020	District Wide	1041	Raw Water Master Plan / EIR	Planning	Final Public Outreach Process Design approved at the May, 2020 WHO Committee.
02	TONIA TABUCCHI HERRERA	2019	LWW and N. Auburn Water Age Evaluation (DIV 3&5)	2027	Model the water age in the LWW and N. Auburn Treated Water Systems.	Study	Consultants comments are under review.
13-1 - ADMIN CAPITAL 10114-52915							
01	TONIA TABUCCHI HERRERA	2020	Hemphill Diversion (DIV 4)	7032	Hemphill Diversion Maintenance Activities to facilitate Fish Passage. Modification of the downstream area of existing Diversion facility with anticipation to improve fish passage.	Design	Preparation of IS and NOP underway. Public release of IS/NOP for public comment is scheduled for September 2020.
17 - SEDIMENT REMOVAL PROJECTS (\$1,200,000) 10151-52914							
01	ADRIAN SCHNEIDER	2020	District-wide Reservoir Study	2500	District-wide reservoir study of the current condition of all District reservoirs, that includes bathymetry to better understand the diminished capacity due to sedimentation. Will assist in determining costs, prioritization, and alternatives.	Planning	Developing study
02	ADRIAN SCHNEIDER	2019	Loma Rica Reservoir (DIV 2)	2090	Placement of 5,600 cubic yards of stockpiled sediment at airport property	Post-Construction	Request for quotes to be sent out in July. Project start anticipated for August 2020 for the placement of 5,600 cubic yards of stockpiled sediment at airport property
03	ADRIAN SCHNEIDER	2019	Newtown Reservoir (DIV 1)	6958	Install permanent bypass pipe & remove accumulated sediment from the reservoir to regain capacity.	Post-Construction	Request for quotes to be sent out in July 2020. Project start anticipated for August 2020 to remove 700 cubic yards of stockpiled sediment.
04	GREG JONES	2019	Combie Sediment Removal Project	2135	Removal of sediment at the east side of Combie Reservoir	Post-Construction	Sediment removal complete. Final disposal of material ongoing.
05	ADRIAN SCHNEIDER	2020	Greenhorn Sediment Removal (DIV 2)	8515	Removal accumulated sediment from the Greenhorn Creek arm of Rollins Reservoir.	Planning	Reservoir sediment removal study (cost/benefit analysis) to determine validity of removing sediment from this reservoir.
06	ADRIAN SCHNEIDER	2020	Orr Creek Reservoir (DIV 3)	6963	Cleaning of Orr Creek Reservoir to increase capacity	Planning	Reservoir sediment removal study (cost/benefit analysis) to determine validity of removing sediment from this reservoir.
07	ADRIAN SCHNEIDER	2020	Dutch Flat Afterbay Sediment Removal (DIV 2)	2213	Remove accumulated sediment from the afterbay to reduce outlet pipe clogging & operation.	Planning	Reservoir sediment removal study (cost/benefit analysis) to determine validity of removing sediment from this reservoir.
08	GREG JONES	2020	Steephollow Sediment Removal	6877	Removal of sediment at Steep Hollow and protection of hydro facilities	Hold	Need funds to get things moving for Channel / Monitoring. ROW has one easement remaining.
18 - RECREATION (\$315,000) 30250-52915							
01	DOUGLAS RODERICK	2020	Ditch Tender House Scotts Flat	2102	Remodel of Ditch Tender House at Scotts Flat Lake	Construction	Maintenance finishing up final items including ADA ramp.