

AURORA WATER CAPITAL PROJECTS UPDATE

MARCH 2019

PROJECTS UNDER CONSTRUCTION

Listed by Ward(s) in which construction is occurring. "All" indicates the project benefits the entire system specified and work may be occurring outside the city limits.

	WARD	PROJECT NAME	DESCRIPTION	LOCATION	SYSTEM(S)	STATUS
1.	I	Lower Westerly Creek Flood Control Improvements at Montview Boulevard	The Westerly Creek Flood Control Improvements project will replace two existing box culverts and construct a 60' clear-span bridge, while improving approximately 2,500 linear feet of channel upstream and downstream of Montview Boulevard.	The focus of the project is at Montview Boulevard, between Chester and Beeler Streets.	Stormwater	Denver has completed their review and comments are being incorporated into the LOMR package. Urban Drainage, Denver and Aurora are setting a meeting with FEMA to determine how to regulate the flood plain based on two-dimensional modeling. Denver, Urban Drainage and Aurora met on August 22 to finalize the flood plain delineation which will be acceptable to all parties. An amendment, negotiated to incorporate Denver's concerns about the flood plain delineation, is being routed for approval. The amendment has been approved and the initial floodplain delineation has been submitted and is being reviewed by all parties. Notifications to Denver residents have been mailed and we anticipate the draft LOMR submittal is being reviewed by the City and Denver.
2.	I	Sewer Improvements for Lima Street Alley and Paris Street Alley at Montview Boulevard	This project will address maintenance issues that have cause nuisance sanitary sewer backups.	This work is along Lima and Paris, from Colfax to Montview and down East 22nd Avenue to Dallas Street.	Waste Water	The contractor's first crew is working at East 22nd Avenue and Dayton Street. The second crew has been located at East 22nd Avenue and Lola Street. The trenchless crew's work has been pushed out to an April start date. Notices were issued to residents and businesses affected by construction in each of these areas and staff followed-up with businesses by canvassing, to ensure questions were answered and issues were addressed.
3.	II	Sand Creek Interceptor Cured-in-Place Pipeline (CIPP) Rehabilitation Project - Airport Boulevard to Chambers Road	Potential environmental impacts associated with sanitary sewer upgrades will be reviewed in this study.	The project will be focused in the area between Chambers and Airport roads.	Waste Water	The contractor is currently preparing submittals. Bypass pumping and installation is expected to begin in early April.
4.	II	Flow Control Vault at East 6th Avenue and Powhaton	This is an on-call project to construct control vaults that will supply reusable raw water.	The project is located at East 6th Avenue and Powhaton.	Water	Vault construction is complete and pressure testing is planned in March. Programming and construction of the control panel is still pending, with factory testing expected to occur at the end of March.
5.	III	Westerly Creek Tunnels Rehabilitation Project	This project will design measures to repair the corroding steel reinforcement in the existing concrete box culverts where Westerly Creek crosses under East Exposition and East Kentucky avenues.	The work will be located at East Exposition and East Kentucky avenues.	Stormwater	Project design has been completed and bid documents are prepared. Construction is expected to begin in spring 2019.
6.	III	Easterly Creek Improvements - First Avenue and Kenton Street Detention Pond	This project will design and construct a regional detention pond in the Easterly Creek Basin. Once completed, the pond will substantially reduce flood flows downstream.	First Avenue and Kenton Street.	Stormwater	Water line relocation along East First Avenue is complete while work on the storm sewer and pond excavation are ongoing. Overall, the project is approximately 20 percent complete.
7.	V	Griswold Water Purification Facility PLC Replacement and Network Improvements	This project will replace the Programmable Logic Controllers (PLC) that automate the process control at the treatment facility, as well as upgrade security and wireless coverage for Operations.	The work is located at the Griswold Water Purification Facility.	Water	The design drawings are nearing completion. A review was held in and the drawings are expected to be complete in April. The project will bid and award in May.
8.	V	Griswold Air Scour Improvements	Griswold Water Purification Facility.	The work will increase the efficiency and safety of air scour piping in four of the gravity filters at Griswold.	Water	Testing of Filter 3 and 8 media will move forward and additional investigation on performance will be included with the next phase.
9.	V	Zone 4/3 Pressure Relief Valve Project	This project will enable Operations to move water from Zone 4 into Zone 3, maximizing the distribution of the Binney Water Purification Facility water during drought conditions.	Griswold Water Purification Facility, at 14201 East Hampden Avenue.	Water	Construction is underway. The estimated project completion date is May 2020.
10.	VI	Lift/Pump Station Miscellaneous Improvements - Work Package No. 3 (Aurora Pump Station Improvements)	This project includes general electrical and mechanical improvements to the Aurora Reservoir Pump Station. Improvements will be delivered using the Construction Manager/General Contractor (CM/GC) delivery method.	The Aurora Reservoir Pump Station is located on the north side of the Aurora Reservoir.	Water	Construction of the building superstructure is nearly complete and equipment installation will continue through 2019. Masonry installation should be finished in March and heavy equipment installation will occur in April. Construction will be finished later this year.

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11.	VI	Trickle Channel at Blow-off Valve 25VW001	A potable water blow-off valve has been rendered inoperable because of drainage discharge from a storm sewer outlet pipe. The trickle channel will route Stormwater around the blow-off so it will be accessible for operation.	The project is located in an easement near East Plymouth Drive and South Elk Court.	Stormwater	The project will re-bid in April.
12.	VI	Lift/Pump Station Miscellaneous Improvements Project - Murphy Creek Lift Station Odor Control Upgrades	The lift station's existing odor control system (a soil bio filter) has reached the end of its useful life and is no longer meeting odor reduction objectives. Options for replacing or improving the soil bio filter were evaluated. Base on airflow, anticipated odorant loading and cost effectiveness, a carbon adsorption system has been identified as the preferred replacement option. This project entails the procurement and installation of a carbon adsorption system, and all lift station improvements necessary to accommodate the new system.	The Murphy Creek Lift Station is located on South Harvest Road, south of East Quincy Avenue.	Waste Water	Installation of the carbon adsorber system is complete. System performance testing was finished at the end of the month and the project has been completed. The project will be removed from the spreadsheet next month.
13.	VI	Wemlinger Water Purification Facility CT Chamber	This project will design and construct a chlorine contact basin at the Wemlinger Water Purification Facility, which will better enable the facility to meet all regulatory requirements at full rated capacity.	The work is located at the Wemlinger Water Purification Facility on East Quincy Avenue.	Water	Excavation began the last week in March and will continue through April. Submittals and RFIs are underway and work in the chlorine room will be complete prior to plant start-up in mid-April.
14.	All	Aurora Reservoir Outlet Tower Hydraulic System Repairs	This project will replace the existing hydraulic system on the outlet tower that has reached the end of its service life. Additionally, the project will rehabilitate other components on the tower that are in need of repair/replacement and address items from the annual SEO report.	Construction is at the Aurora Reservoir Outlet Tower.	Treatment	Fabrication of the gate #5 yoke has started and the contractor anticipates completion of the yoke by early April. The last of underwater construction activities are expected also to begin in April. Final System Acceptance Testing (SAT) of the system is anticipated in late April.
15.	All	System Wide Uninterruptible Power Supply (UPS) Project	There are approximately 60 water and waste water facilities that need UPS replacements. This project will design those replacements.	Work will occur at approximately 60 locations throughout the city.	Water, Waste Water, Stormwater, Reuse	Five of the six UPS units that were sent to the manufacturer for repairs have been returned. Factory Acceptance Testing (FAT) and System Acceptance Testing (SAT) schedules are being developed.
16.	All	North Campus Well Field Maintenance and Rehabilitation	This project entails the mechanical cleaning of 17 groundwater production wells located at the Prairie Waters north campus well field. The project also includes the rehabilitation and/or replacement of excessively corroded and worn groundwater production equipment in the wells. Well cleaning and rehabilitation will be phased over the next three years. Five wells were addressed in 2017, six will be addressed in 2018 and the remainder will be addressed in 2019.	The Prairie Waters north campus well field is located on the west bank of the South Platte River, midway between Brighton and Ft. Lupton.	Water	This project is complete and will be removed from the spreadsheet next month.
17.	All	Aurora Reservoir Instrumentation Improvements Project	This project will replace aging and defective geotechnical instrumentation and equipment that is used to monitor the water level and seepage rates in various areas of the reservoir's dam.	Aurora Reservoir.	Water	The contractor has completed the drilling operations for the new piezometers. The new inclinometers for the dam have been installed. The contractor has determined the original piezometer equipment specified by the engineer is too big for existing conditions and has ordered new equipment that will work. The new equipment should arrive mid-April and be installed by the end of May.
18.	All	Rampart Appurtenance Rehabilitation - Phase V	This project includes the rehabilitation of critical appurtenances of the Rampart raw water pipeline during the 2018-2019 winter shut-down.	Work will occur at Rampart Reservoir and Quincy Avenue, from Smoky Hill to the Wemlinger WPF.	Water	The contractor has completed the Roxborough disconnect/isolation and is in the process of completing the 48" butterfly valve (BFV) installation at the Denver Foothills Water Treatment Plant Intertie
19.	All	Quincy Reservoir Improvements: Outlet Tower Trash Rack Replacement	Replacement of the four existing trash racks at the reservoir outlet tower.	Quincy Reservoir.	Water	The contractor has completed his pre-construction dive to verify existing conditions on the outlet tower and to take measurements of the existing trash racks and connections. The contractor has submitted the trash rack shop drawings and, once approved, will begin fabrication.
20.	All	North Campus Well Field Riverbank Stabilization	This project entails the stabilization of approximately 150 feet of the South Platte riverbank within the footprint of an easement identified for future North Campus well field expansion. The existing riverbank in the project is near vertical, has experienced significant erosion and is susceptible to continued erosion. Stabilization of the embankment will minimize encroachment of the South Platte River into the easement and provide protection for the city's future well field infrastructure.	The North Campus well field is located along the South Platte River, between Brighton and Ft. Lupton.	Water	This project is complete and will be removed from the spreadsheet next month.

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PROJECTS UNDER DESIGN

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	WARD	PROJECT NAME	DESCRIPTION	LOCATION	SYSTEM(S)	STATUS
21.	I	Fitzsimons-Peoria Stormwater Outfall Project	This Fitzsimons-Peoria Outfall Project will provide a cost effective solution to manage and convey stormwater in this area.	North on Peoria Street, from Quari Court to an existing outfall at Sand Creek.	Stormwater	GMP for WPs 2 and 3 is being reviewed. The pre-construction meeting for WP 1 will be held April 1. Work packages 2 and 3 are undergoing their second engineering review. The permit for project signs is being routed for approval.
22.	I	Stanley Marketplace Water Quality Pond	This project will realize the construction of a water quality pond west of the newly redeveloped Stanley Marketplace. The pond will be located west of the new parking lot.	Northwest of East 23rd Avenue and Dallas Street.	Stormwater	The design consultant's contract was signed and a project kickoff meeting was held March 21.
23.	II	First Creek Interceptor	This is an interceptor connecting the ProLogis lift station and the First Creek Lift Station, to eliminate the ProLogis lift station.	Approximate location of the First Creek Lift Station is off Piccadilly Road and East Copperleaf Boulevard. The ProLogis Lift Station is located on Smith Road.	Waste Water	The project is scheduled advertise in April.
24.	II	Buckley East Tollgate Creek	This project will develop stream improvements identified in Major Drainage Plan (MDP) to 30 % design. This effort will support an Intergovernmental Agreement (IGA) for the land swap between the City of Aurora and Buckley Air Force Base.	This project is located in the vicinity of Buckley Air Force Base for East Tollgate Creek.	Stormwater	Staff continue to pursue an initial engineering review and a land swap coordination meeting.
25.	II	First Creek Lift Station	The First Creek Lift Station services the First, Second and Third Creek Drainage Basins. The station is under sized for the area and the project will increase the station's firm capacity. Site work will include upsizing the pumps, generator and power.	The approximate location of the First Creek Lift Station is near Piccadilly Road and Green Valley Ranch Boulevard, just east of Piccadilly Road.	Waste Water	The engineer continues to work through preliminary design and coordination with the Colorado Department of Public Health and Environment (CDPHE) for permitting.
26.	II, VI	Stormwater Corrugated Metal Pipe (CMP) Rehabilitation - Task 5	The project involves the rehabilitation of nearly 1,700 feet of storm sewer pipelines ranging in diameter from 84" to 132", utilizing the Centrifugally Cast Concrete (CCCP) method.	Rehabilitation will occur at four locations in Ward II and one location in Ward VI.	Stormwater	Contractor pre-qualifications are due March 6 and selection will be completed by the end of the month. The project will be out for bid by mid-April.
27.	III, V	2018-2019 Waterline System Improvement Project	With the help of the Operations Team, Engineering Services has identified a priority site on Havana Street, between East 1st and East 6th avenues. Work at this location has been elevated due to planned improvements at the old Fan Fare site and the need to improve water pressures.	The priority location is on Havana Street, between East 1st and East 6th avenues. The balance of the work will be located between East 1st to East 3rd avenues and Dayton to Havana streets.	Water	Bid opening was held March 26 and construction should be underway by mid-May.
28.	III, V	Havana Street 30" Water Line Renewal Project	This project follows the condition assessment that was completed in 2017 and will determine the best rehabilitation method and design for the water line renewal within Havana Street.	The project is located on Havana Street between 1st Avenue and 6th Avenue.	Water	Design continues to progress to 90 percent.
29.	IV	Westerly Creek/Canterbury Improvements Project (Canterbury Pond)	A Major Drainage way Plan (MDP) was completed for Westerly Creek in 2015. Recommendations in the MDP included a detention pond in Canterbury Park and additional channel improvements to help alleviate potential flooding along Westerly Creek. The project will include a hydrologic and hydraulic model and a Conditional Letter of Map Revision (CLOMR) to verify improvements are functioning as needed.	Westerly Creek, between Florida and Mississippi avenues.	Stormwater	Project design alternatives have been prepared and are being reviewed by staff. Aurora Water and PROS staff made a joint presentation to the Village East HOA to discuss goals and solicit project input from the community. Currently, staff are pursuing a flat bottom pond to maximize storage and usable park space. PROS will be hosting a second public meeting to the Village East HOA on April 23 at Fire Station 11 to share project updates.
30.	V	Smoky Hill Pump Station Improvements	This project will evaluate the existing pump station conditions and propose cost effective improvements to address maintenance issues of the aging infrastructure.	The Smoky Hill Pump Station is located at 16801 E. Smoky Hill Road.	Water	The contractor has begun submittals for the site remediation work. Construction is expected to start in early April. The engineer is working on the design for the Smokey Hill Pump Station upgrades.
31.	V	Hutchinson Pond Sediment Removal Project - Phase II	Improvements to the intake structure and aeration system will be made.	Hutchinson Pond.	Stormwater	Final design is complete and the Statement of Qualifications (SOQs) are being reviewed. The project advertised for bid and a selection will be made soon.

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32.	VI	Gun Club Pump Station Preliminary Design	This project will determine the overall performance of the existing pump station. Those items in need of rehabilitation and/or replacement will be identified to help improve or increase the service life of the station to meet the future needs of the service area. A preliminary design will be provided with prioritized recommendations and cost estimates.	The Gun Club Pump Station is located just south of East Quincy Avenue and Gun Club Road.	Water	The consultant will begin project design services after Addendum 2 approval in early April.
33.	VI	Wemlinger Water Purification Facility PLC and UPS Conversions	This project will replace the Programmable Logic Controllers (PLC) that automate the process control at the treatment facility, as well as upgrade security, wireless coverage and electrical reliability.	Wemlinger Water Purification Facility at 18301 East Quincy Avenue.	Water	Testing and installation of equipment is underway. Work will be completed by April.
34.	VI	Binney Water Purification Facility UV/AOP Clean-in-Place Improvements Project	The purpose of this project is to develop an effective and economical method of cleaning the ultraviolet (UV) lamps.	The project is located at the Binney Water Purification Facility.	Water	Design and permitting are complete and contractors have been pre-qualified. The project will advertise in April.
35.	VI	Gun Club Raw Water Expansion Project	This project stems from a request from Heritage Eagle Bend Metro District to help supply water to the community golf course. Aurora Water offered to develop a non-potable water feed already benefitting Saddle Rock Golf Course. The expansion project entails upgrading the Gun Club Pump Station raw water system. Heritage Eagle Bend has contracted to complete project design and Aurora Water will assume responsibility for the construction.	The Gun Club Pump Station is located just south of East Quincy Avenue and Gun Club Road. The pipeline that will fee Heritage Eagle Bend will tie into the existing 12" raw water line at Saddle Rock Golf Course, proceed to and follow the Piney Creek Drainage Way where it will cross under E-470 and then head south to an existing Heritage Eagle Bend pipeline, where the connection will be made.	Water	The consultant has submitted plans for review through the Public Works civil plans review process. Construction is expected to begin in the third quarter of 2019 and be finished in early 2020.
36.	All	Spinney Mountain Caretaker Facilities	The existing caretaker facilities are modular and are 40+ years old. They must be replaced.	The project is located at Spinney Mountain Reservoir near Hartsel, Colorado.	Water	The preliminary drawings have been submitted for review and any modifications needed will be made in April and submitted to Park County for approval.
37.	All	Wild Horse Reservoir	This project involves the development of new storage reservoir for the Homestake pipeline.	Wild Horse Reservoir will be located just south of Hartsel, Colorado, off Highway 9. County Road 53 borders the south property line.	Water	Because of the government shutdown, all reviews will be delayed by a month or more. The project is moving forward with additional land sales for the larger reservoir. A meeting with Park County was held March 21 to discuss the relocation of CR53 for the accommodation of the larger reservoir. With little comment, Park County officials were in agreement with all of the design changes regarding the relocation of CR53. The drawings will be finalized and submitted for approval.
38.	All	North Campus Horizontal Wells Pilot Project	This project will serve to obtain the required hydrogeological data on the Ocker property, to hire a consulting firm to assist with the development of a side-by-side comparison of two types of horizontal wells and to install a portion of the permanent infrastructure that will provide access to the east side of the South Platte River using the Davis easement. The permanent infrastructure will include a South Platte River crossing and piping to connect to the existing raw water supply system. Once the required site data is obtained, the project will advance to designing a plan for a pilot project that will compare two types of horizontal wells, a Ranney collector well and a channel well. The goal of the pilot project will be to develop a cost-per-gallon-produced water rate that includes: 1) impacts to treatment costs based on the quality of water obtained, 2) required permitting, 3) infrastructure design/installation, 4) operation and maintenance and 5) to keep in service the most productive technology.	North Campus and Ocker property located near Highways 8 and 85.	Water	Negotiations regarding the consultant's scope, fee and schedule are complete and the contract is routing for approval. A kickoff meeting will be scheduled for mid-April.

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39.	All	North Campus Well Field Maintenance and Rehabilitation Project	This project entails the mechanical cleaning of 17 groundwater production wells located at the Prairie Waters north campus well field. The project also includes the rehabilitation and/or replacement of excessively corroded and worn groundwater production equipment in the wells. Well cleaning and rehabilitation is being phased over three years. Five wells were addressed in 2017, six in 2018 and the remainder in 2019.	The Prairie Waters north campus well field is located on the west bank of the South Platte River, between Brighton and Ft. Lupton.	Water	Well rehabilitation and replacement activities are currently being identified. Preparation of bid documents and advertisement will occur in April. Project completion is anticipated in January 2020.
40.	All	Sand Creek Water Reuse Facility and UPS Conversion Project	This work will replace the Programming Logic Controllers (PLCs) and Supervisory Control and Data Acquisition (SCADA) network that automates the facility's process controls.	The Sand Creek Water Reuse Facility is located at 11405 East 30th Avenue.	Water	A request for proposal is currently being prepared for advertisement in April. The project is expected to be complete in May 2021.

STUDIES AND ASSESSMENTS

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	WARD	PROJECT NAME	DESCRIPTION	LOCATION	SYSTEM(S)	STATUS
41.	V	Griswold Chemical Feed	This study will examine the overall treatment process and the ways in which the chemical addition can be modified to improve safety and reliability, and potentially reduce chemical costs.	Griswold Water Purification Facility on Hampden Avenue.	Water	A workshop to evaluate alternatives for treatment improvements was held in February. The selected alternative will be developed into a capital improvement project with 10 percent drawings and a detailed cost estimate.
42.	VI	Quincy Reservoir Intertie and Aeration System Improvements Project	An assessment of existing development, evaluation of alternatives, conceptual and preliminary activities for three Aurora Water systems at Quincy Reservoir, including reservoir water quality, the intertie and tower trash racks.	Quincy Reservoir marks the location of this project.	Water	Drawings were submitted to Public Works permitting for construction approval. The Building Department will review the new electrical and HVAC for approval. Utility companies have been notified of the new structure so gas and electric services can be brought to the site. Public Works completed their first review and their comments will be addressed and resubmitted for final approval.
43.	All	North Campus Master Plan (NCMP)	This project entails the development of a North Campus Master Plan (NCMP). The NCMP will represent a comprehensive overview of the city's North Campus water source, storage, treatment and delivery systems. The plan will also support the capital planning necessary to maintain current conditions and meet future expansion needs.	The North Campus is located in both Adams and Weld counties, along the South Platte River, in general proximity to Fort Lupton and Brighton.	Water	Four of the five principle elements of the North Campus Master Plan Project, the Surface Reservoir Water Quality Study, the Water Resources Operating Plan, the Facilities Operating Plan and the Gap Analysis have been completed and provided to the city. The final element, the Capital Improvements Plan, is scheduled for completion in April. Overall project completion is expected in May.
44.	All	North Campus Electrical and Communication System Improvements	Ongoing expansion of the North Campus necessitates modification to and expansion of existing electrical and communication systems. Under this project, alternatives for modifying and expanding these systems will be identified and evaluated. The project will also evaluate options for addressing obsolescence and improving the reliability of electrical systems at select North Campus facilities.	The North Campus is located in both Adams and Weld counties, along the South Platte River, in general proximity to Fort Lupton and Brighton.	Water	The design engineer has begun their evaluation of the existing communications/electrical system and the design of recommended system improvements is currently 75 percent complete. The design should be finalized in May.
45.	All	Sand Creek Parallel Interceptor	This is a study to determine the feasibility of paralleling the Sand Creek Interceptor from the Sand Creek Waste Water Reclamation Facility to a location near the intersection of 13th Avenue and Tower Road. Three projects from the 2017 Waste Water Master Plan - SC7, SC8 and SC12 - will be covered. The study will optimize the recommendations with respect to developing a capital improvement plan to deliver the projects.	Sand Creek Waste Water Reclamation Facility at 13th Avenue and Tower Road and the North Sand Creek Interceptor near North Peoria Street.	Waste Water	The preliminary cost estimates on the two most feasible routes were discussed in the fourth project workshop held in February. The contractor is now developing a capital improvement plan with more detailed cost estimates for each segment of the recommended route.