

2014-2019 District Capital Program – Project Summaries

General Facilities Projects (Trunks, Pump Stations, Force Mains)

Environmental Mitigation Monitoring

Cost: \$60,000

Scope: This program allowance provides budget for minor maintenance activities, monitoring and annual monitoring reports for various project environmental mitigation areas (wetlands, wetland buffers, habitat areas). Maintenance typically includes weed control and some replanting as needed. The work is performed under a reimbursable agreement by Clark County Environmental Services.

Basis: Permit Requirement

General Sewer Plan (GSP) Update (in conjunction with Ridgefield GSP update)

Cost: \$600,000

Scope: The District's current General Sewer Plan was first adopted in 2001 and amended in 2006 and 2013. The plan is largely out of date in regard to accurate flow assumptions, cost estimating and timing of projects. The update will review the basin boundaries, basin service solutions, utilize flow monitoring data to develop a calibrated hydraulic model of the primary trunk lines and provide realistic planning assumptions for flow. The GSP update is necessary to maximize District investment in extending service. The update will also address the Ridgefield service area and the long-term plan for the Meadow Glade/Hockinson STEP system.

Basis: Planning

Discovery Corridor Wastewater Transmission System (DCWTS) - Phase 1

Cost: \$25,000,000

Scope: The Discovery Corridor Wastewater Transmission System is a program of projects developed to provide just-in-time capacity to the City of Ridgefield over the next 20 or more years. The first phase of the program constructs the back-bone system that connects the Ridgefield service area to the District's core service area and ultimately the Salmon Creek Treatment Plant. Phase 1 includes a new regional scale pump station, two pump station upgrades, new force mains and ancillary work.

Basis: Extending Service

Discovery Corridor Wastewater Transmission System – Washington State Department of Transportation (WSDOT) Median

Cost: \$2,150,000

Scope: This project adds a portion of Phase 3 of the DCWTS Program to Phase 1. Specifically, it adds the second force main along the WSDOT Interstate 5 median (from the Battle Ground interchange to the City of Ridgefield interchange). This work is being accelerated to take advantage of our current (rare) opportunity to work in the median and minimize long-term costs. The project adds 12,000 feet of 20" force main.

Basis: Opportunity

Discovery Corridor Wastewater Transmission System - Bid Alternative A (Unfunded Project)

Cost: \$2,150,000

Scope: This project adds a portion of Phase 3 of the DCWTS Program to Phase 1 as a Bid Alternate. Specifically, it adds the second force main between Interstate 5 and the Pioneer Canyon Pump Station. Constructing both force mains at the same time will take advantage of permitting and minimize long-term costs. This Bid Alternate will only be constructed if the overall low bid is within the Phase 1 project budget. The project adds 12,000 linear feet (LF) of 20" force main.

Basis: Opportunity

Payne Pump Station

Cost: \$1,200,000

Scope: This project will eliminate a temporary pump station (Vista Terrace) and construct a new permanent pump station and force main to accommodate current and future residential growth. The project includes a gravity line from the existing Vista Terrace pump station that will require trenchless technologies (pilot tube auger boring or similar method).

Basis: Capacity

NE 119th Street East County Road Project (CRP)

Cost: \$1,225,000

Scope: This project extends service in conjunction with a County Road Project along NE 119th Street from NE 72nd Avenue to NE 87th Avenue. The project includes 6,300 feet of 10" gravity trunk and 5,000 feet of force main. These lines will eventually be extended to the Curtin Creek Pump Station.

Basis: Extending Service

NE 10th Avenue North Pump Stations (2) CRP

Cost: \$2,400,000

Scope: This project extends service in conjunction with a County Road Project along NE 10th Avenue from NE 154th Street to NE 164th Street. The project includes sub-area planning, two new pump stations and 2,200 feet of 6" force main.

Basis: Extending Service

Glenwood Pump Station Upgrade

Cost: \$1,875,000

Scope: The Glenwood Pump Station is the District's largest existing pump station and a critical link in its collection system. This project upgrades the existing pump station from 3.4 million gallons per day (MGD) to 6.7MGD (peak flow) to accommodate expected growth in the Brush Prairie area. The first phase includes hydraulic capacity upgrades. The second phase provides odor control at the station.

Basis: Capacity

Whipple Creek North Trunk (under I-5)**Cost: \$1,150,000**

Scope: This project constructs 1,500 feet of 18" gravity trunk from the Fairgrounds Pump Station through the NE 179th Street Interchange, allowing for the abandonment of the Fairgrounds Pump Station. The project cost estimate assumes it is constructed as part of a County or WSDOT interchange project.

Basis: Capacity**Glenwood Pump Station Chemical Dosing System****Cost: \$6,000**

Scope: This project will replace the existing Bioxide tank and dosing system (not owned by the District) with a new District-owned tank and dosing system. Once complete, the District will have the option to purchase generic calcium nitrate and reduce long-term operating costs. The project has a two year return on investment (ROI).

Basis: Operational Optimization**Pleasant Valley North Pump Station****Cost: \$1,506,000**

Scope: This project constructs a new pump station and force main to serve Basin 5, Pleasant Valley North (NE 50th Avenue north of Salmon Creek Avenue).

Basis: Extending Service**NE 94th Avenue Trunk County Road Project (CRP)****Cost: \$260,000**

Scope: This project extends service in conjunction with a County Road Project along NE 94th Avenue from Padden Parkway to NE 99th Street. The project consists of extending side sewers and local collection mains, as needed to serve adjacent parcels.

Basis: Extending Service

	Septic Elimination Program (SEP)
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LaLonde**Cost: \$314,000**

Scope: This SEP project constructs 1,650 feet of 8" gravity, 482 feet of 3" pressure and 28 side sewers. The project is complete with the exception of road restoration work to be completed in 2014 in conjunction with the County overlay program.

Basis: Septic Elimination**Future Project Allowance****Cost: \$1,000,000**

Scope: The District has invested significantly in the Septic Elimination Program over the past four years and has met the District's policy commitment of \$250,000 per year until 2016. New projects will be identified in 2015 and the program reinstated in 2016.

Basis: Septic Elimination

Developer Reimbursement

District Installed Laterals

Cost: \$60,000

Scope: This program allowance provides for side sewers to be constructed in conjunction with private development projects.

Basis: Extending Service

NE 152nd Avenue Pump Station

Cost: \$900,000

Scope: This project constructs a new pump station and force main to serve a portion of Basin 56. The pump station is located at about NE 152nd Avenue and NE 109th Street (Dunning Meadows subdivision).

Basis: Extending Service

Jackie's Landing (NE 108th Avenue Trunk)

Cost: \$25,000

Scope: This project installs 1,800 feet of 15" gravity trunk from NE 104th Street to NE 109th Street.

Basis: Capacity

Frazier Downs (NE 94th Avenue Trunk)

Cost: \$200,000

Scope: The project constructs about 3,000 feet of 10" gravity trunk from NE 100th Street to NE 107th Street.

Basis: Extending Service

Whipple Creek North Trunk

Cost: \$50,000

Scope: The project constructs about 1,100 feet of 18" gravity trunk from about NE 13th Avenue to the future NE 15th Avenue Pump Station. The project will be constructed in conjunction with commercial development east of the NE 179th Street/Interstate 5 interchange.

Basis: Extending Service

St. Johns Woods Pump Station

Cost: \$450,000

Scope: This project constructs a new pump station and force main to serve a portion of Basin 12. The station is located near NE 88th Street and NE 52nd Avenue.

Basis: Extending Service

NE 15th Avenue Pump Station

Cost: \$907,000

Scope: This project constructs a new pump station and force main to serve a portion of Basin 1. The station is located at approximately NE 179th Street and NE 15th Avenue.

Basis: Extending Service

Shoen Pump Station

Cost: \$900,000

Scope: This project constructs a new pump station and force main to serve a portion of Basin 56. The station is located at approximately NE 113th Street and NE 145th Avenue.

Basis: Extending Service

Curtin Creek Pump Station Phase 1

Cost: \$1,150,000

Scope: This project constructs a new pump station and force main to serve Basin 49, Curtin Creek North, as well as Basins 50, 51 and 53. The ultimate location of the Curtin Creek Pump Station is well outside of the current urban growth boundary (UGB) (as shown in the current General Sewer Plan). This proposed Phase 1 station is located within the UGB and is expected to serve growth for the next 15 or more years. Regardless of location, the station will need to be built in phases to properly operate.

Basis: Extending Service

Curtin Creek Trunk

Cost: \$250,000

Scope: This project constructs a gravity trunk (18" and 15") to the Curtin Creek Pump Station.

Basis: Extending Service

Future Project Allowance

Cost: \$1,000,000

Scope: This program allowance provides for future developer reimbursements to construct pump stations, force mains and trunk sewers in accordance with the General Sewer Plan.

Basis: Extending Service

Fleet & Facilities – New Capital Purchases

Thermographic Camera

Cost: \$5,000

Scope: A thermographic camera is used to monitor the condition of pump station-related equipment by providing a heat map of the equipment. Hot spots on the heat map indicate potentially failing equipment before actual failure.

Basis: Operational Optimization

Restoration and Replacement - Gravity

Spot Repairs

Cost: \$600,000

Scope: This program allowance provides for minor repair and replacement projects, typically under \$35,000. The program now incorporates the old District Lateral Repairs Program.

Basis: Condition

Infiltration and Inflow (I & I) Program**Cost: \$175,000****Scope:** This program allowance provides for engineering, flow monitoring and construction work to reduce inflow and infiltration.**Basis:** I&I Abatement**County Road Preservation Program****Cost: \$60,000****Scope:** This program allowance provides for minor projects in advance of road preservation work. Typical projects include raising manhole rims to grade and trench repairs.**Basis:** Condition**Shadow Wood Motor Operated Valve (MOV) Assessment****Cost: \$20,000****Scope:** This assessment work is to determine the as-built condition and potential solutions for the Shadow Wood MOV System. The Shadow Wood MOV System is a low-head (or low pressure) system that is currently being impacted by neighboring, high-head MOV systems, resulting in potential debris buildup in the system.**Basis:** Condition**St. Johns Trunk****Cost: \$805,000****Scope:** The St. Johns Trunk is severely corroded due to historically high levels of hydrogen sulfide from the Glenwood and Green Meadows pump stations. The project restores the trunk by installing 1,600 feet of 36" cured-in-place pipe (CIPP) liner between the Glenwood Pump Station discharge and St. Johns Road.**Basis:** Condition**Cougar Canyon Trunk****Cost: \$155,000****Scope:** The Cougar Canyon Trunk is severely corroded near the terminus at the Salmon Creek Interceptor. The project restores the trunk by installing 280 feet of 15" cured-in-place pipe (CIPP) liner. The project will be designed, bid and constructed in conjunction with the St. Johns Trunk project.**Basis:** Condition**NE 78th Street Trunk****Cost: \$955,000****Scope:** The existing 8" main is currently flowing near capacity and is on a quarterly cleaning cycle due to historic backups resulting in damage to neighboring property. The project replaces 2,120 feet of 8" gravity with a 15" gravity trunk from NE 13th Avenue to NE 20th Avenue.**Basis:** Condition

Hazel Dell Avenue South of 63rd Street

Cost: \$185,000

Scope: The project replaces 540 feet of 6" and 8" gravity sewer from NE 61st Street to NE 63rd Street. The project is scheduled for early 2014 in advance of a Clark County sidewalk project.

Basis: Condition

Highway 99 Redevelopment (Developer Reimbursement)

Cost: \$50,000

Scope: This project replaces 300 feet of 8" gravity sewer within a redevelopment project located between Interstate 5 and Highway 99 (from NE 72nd Street to Repass Road).

Basis: Condition

Value Motel (ULID 1 South of 82nd Street)

Cost: \$100,000

Scope: This project replaces 400 feet of 8" gravity sewer between MH14-1149 and MH14-2262. The project is located south of 82nd Street and west of the Value Motel.

Basis: Condition

Highway 99 Sewer South

Cost: \$1,265,000

Scope: This project replaces 3,400 feet of 10", 12" and 15" gravity trunk (from NE 63rd Street to NE 78th Street).

Basis: Condition

Hazel Dell Avenue South

Cost: \$450,000

Scope: This project replaces 1,200 feet of 8" gravity and 500 feet of side sewers from NE Anderson Road to NE 78th Street.

Basis: Condition

NE 117th Avenue (SR 503)

Cost: \$345,000

Scope: This project replaces 900 feet of 8" gravity sewer from NE 95th Street to NE 99th Street.

Basis: Condition

Minnehaha Street

Cost: \$405,000

Scope: This project replaces 1,200 feet of 8" and 10" gravity sewer from Highway 99 to NE 12th Court.

Basis: Condition

NE 63rd Street and NE 102nd Avenue

Cost: \$235,000

Scope: This project replaces about 800 feet of 8" gravity sewer in NE 63rd Street (from NE 101st Avenue to NE 102nd Avenue) and in NE 102nd Avenue (from about NE 61st Circle to NE 63rd Street).

Basis: Condition

Restoration and Replacement – Pump Stations & Force Mains

Meadows Terrace Pump Station

Cost: \$400,000

Scope: This project replaces the existing package pump station and provides a pull off area for service trucks.

Basis: Condition

Pump Station Repairs

Cost: \$450,000

Scope: This program allowance provides for annual pump, mechanical and electrical repairs and replacements over \$5,000.

Basis: Condition

Oro Vega Pump Station Replacement

Cost: \$280,000

Scope: This project replaces the existing 1991 10 horsepower (HP) Dry Pit "Can" Station with a duplex submersible pump station.

Basis: Condition

Stag Leap Pump Station Removal

Cost: \$120,000

Scope: This project constructs 500 feet of 8" gravity sewer from NE 107th Street to NE 43rd Place in order to abandon the existing pump station. Easements are required.

Basis: Condition

Klineline Pump Station Replacement

Cost: \$220,000

Scope: This project replaces the existing 1973 2 HP self-priming pump station.

Basis: Condition

Knoll Ridge South Pump Station Replacement

Cost: \$220,000

Scope: This project replaces the existing 1976 3 HP submersible pump station at NE 125th Circle and NE 6th Court.

Basis: Condition

Plantation Pump Station Replacement**Cost: \$220,000****Scope:** This project replaces the existing 1.5 HP pump station at 12003 NE Plantation Road.**Basis:** Condition**Buckman Gardens Pump Station Removal****Cost: \$345,000****Scope:** This project constructs 900 feet of 8" gravity sewer from NE 97th Street to NE 94th Street in order to abandon the existing pump station. Easements are required.**Basis:** Condition**Sierra Vista/Hunter's Glen Pump Station Removals****Cost: \$525,000****Scope:** This project constructs 900 feet of 8" gravity sewer (300 feet of trenchless under I-205) from NE Meadows Drive to NE 91st Avenue in order to abandon the existing pump stations.**Basis:** Condition**Restoration and Replacement – Fleet and Facilities****Campus Restoration and Replacement****Cost: \$550,000****Scope:** This program allowance provides for various projects to be identified by a Campus Assessment in 2014. The project is driven by a growth in personnel and operations optimization, in addition to upgrades associated with an aging facility.**Basis:** Operational Optimization**Office Carpet Replacement****Cost: \$130,000****Scope:** This project replaces the carpet in the main office area and basement in 2014 and in the Board room in 2017.**Basis:** Condition**Office Front Entrance Remodel****Cost: \$30,000****Scope:** This project remodels the front office entrance to provide better customer service and work flow.**Basis:** Operational Optimization**Pump Station Service Truck Replacements (2)****Cost: \$100,000****Scope:** Replace the pump station service trucks.**Basis:** Condition

Inspector Vehicle Replacements (2)**Cost: \$60,000****Scope:** Replace the four-wheel-drive Inspector vehicles.**Basis:** Condition**Vactor Truck Replacement (Volvo)****Cost: \$325,000****Scope:** Replace the Volvo Vactor truck.**Basis:** Condition**Closed Circuit TV (CCTV) Camera Replacement****Cost: \$68,000****Scope:** The existing CCTV camera will be over ten years old. The new camera will be digital.**Basis:** Condition**Closed Circuit TV (CCTV) Cable Replacement****Cost: \$20,000****Scope:** The CCTV cable requires replacement about every five to six years (or about every 1.2 million feet of inspection performed).**Basis:** Condition**Office Business Machine Replacements (plotter, copiers, etc.)****Cost: \$23,000****Scope:** Replace office printers, copiers, plotters and other office machines over \$5,000.**Basis:** Operational Optimization**Office Network System Replacement (servers, etc.)****Cost: \$17,000****Scope:** Replace or upgrade system servers and related infrastructure.**Basis:** Operational Optimization**Portable Bypass Pump Replacement****Cost: \$55,000****Scope:** Replace the existing 1970s trailer-mounted bypass pump.**Basis:** Condition

2014-2019 Ridgefield Capital Program – Project Summaries

General Facilities Projects (Trunks, Pump Stations, Force Mains)

North Junction to East side of I-5 (PeaceHealth)

Cost: \$3,500,000

Scope: This project provides service to the northern quadrants of the Interstate 5 junction area. It includes 2,900 feet of 12" force main (FM-4) north and east from Pioneer Canyon Pump Station along N 10th Street to a new pump station (PS-4), and approximately 3,000 feet of gravity trunk (T-10 to T-11 intersection) east along N 10th Street and crossing I-5 to the future location of the PeaceHealth development.

Basis: Extending Service

South Junction & Junction Pump Station Removal

Cost: \$1,120,000

Scope: This project removes the capacity-limiting Junction Pump Station and provides increased capacity to the southern quadrants of the Interstate 5 junction area. It includes 3,800 feet of 18" gravity trunk (T-12E) and removal of the Junction Pump Station in conjunction with the Discovery Corridor Wastewater Transmission System (DCWTS) Project.

Basis: Extending Service

South Junction Phase 2

Cost: \$400,000

Scope: This project removes the last two sections of capacity-limiting gravity trunk and provides increased capacity to the southeast quadrants of the Interstate 5 junction area. It includes 1,720 feet of 10" gravity trunk (T-28W / T-28E).

Basis: Capacity

Junction Pump Station Upgrade (Contingency, Unfunded Project)

Cost: \$50,000

Scope: This project includes the replacement of pumps and controls to increase interim capacity at the Junction Pump Station, should it be necessary, prior to completion of the DCWTS project.

Basis: Capacity

Gee Creek Pump Station Site Improvements (Backup Power)

Cost: \$10,000

Scope: This project provides site improvements to the Gee Creek Pump Station to support the installation of a mobile or skid-mounted generator. Staff is currently investigating the best solution.

Basis: Operational Resiliency

Pump Station Upgrades**Cost: \$155,000****Scope:** This project upgrades the existing Ridgefield Pump Station monitoring systems to District standards.**Basis:** Operational Resiliency**Pump Station Critical Pump Spares****Cost: \$220,000****Scope:** This project includes the purchase of critical spare pumps that can support Ridgefield pump stations, bringing the level of service to District standards.**Basis:** Operational Resiliency**Gee Creek Pump Station (Connect to DCWTS)****Cost: \$6,000,000****Scope:** The project will include determining additional easement required and improvements necessary to reverse pump direction of the Gee Creek Pump Station from the Ridgefield Treatment Plant to the Pioneer Canyon Pump Station (future phase of the DCWTS).**Basis:** Capacity**General Sewer Plan (GSP) Update****Cost: \$100,000****Scope:** The project will update the General Sewer Plan for the Ridgefield service area to direct flows to the DCWTS. The project will be performed in conjunction with the District GSP update.**Basis:** Planning**Ridgefield Treatment Plant Upgrade (Contingency, Unfunded Project)****Cost: \$150,000****Scope:** The project will increase treatment capacity of the Ridgefield Treatment Plant to 1 million gallons per day (MGD) (max month), should it be necessary, prior to completion of the DCWTS project.**Basis:** Operational Resiliency**Downtown Pump Station Alternatives Analysis****Cost: \$50,000****Scope:** The project will determine the future location and easement needs for a downtown pump station, required to reverse the downtown area flow to the Pioneer Canyon Pump Station (future phase of the DCWTS) when the treatment plant is abandoned.**Basis:** Planning**City of Ridgefield Road Program Allowance (Unfunded Project)****Cost: \$0****Scope:** Small projects in advance of road preservation work. Typical projects include raising manhole rims to grade and trench repairs.**Basis:** Condition

Developer Reimbursement

Future Project Allowance

Cost: \$1,500,000

Scope: This program allowance provides for future developer reimbursements to construct pump stations, force mains and trunk sewers in accordance with the General Sewer Plan.

Basis: Extending service

Restoration and Replacement

Restoration & Replacement (R & R) Program

Cost: \$200,000

Scope: This program allowance provides for future minor Restoration and Replacement projects, typically under \$35,000, to be identified. The program will incorporate lateral repairs.

Basis: Condition

Shobert Street Spot Repair

Cost: \$50,000

Scope: This project is a City restoration and replacement project transferred to the District. Staff is currently investigating the best solution.

Basis: Condition