

CAPITAL IMPROVEMENT PROGRAM

Fiscal Year 2021-2022

March 15, 2021





Community Vision

City Council Goals

Master Plans

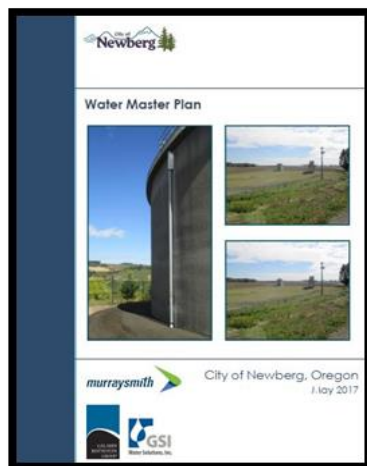
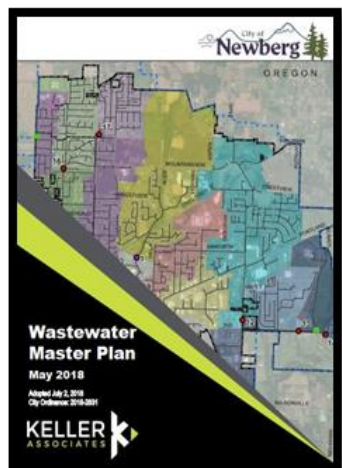
Operational Needs

Regulatory
Obligations

Funding
Constraints



CAPITAL IMPROVEMENT PROGRAM



Update on FY20/21 Projects

Underway	
▪ Inflow & Infiltration (I/I)	▪ Bell West PS
▪ NE Chehalem Water & Wastewater Extension	▪ College Street Sidewalks, Bike Lanes & Waterline Relocation
▪ Master Plan Updates	▪ WTP Filter Covers
▪ Oxidation Ditch	▪ Maintenance Yard
▪ Clarifier Study	▪ Fixed Based Radio Read
▪ Operations Remodel	▪ 800 Block Wynooski Stormwater
▪ WTP Property Purchase	▪ PLC Study
▪ Routine WL Replacement	▪ E Crestview Drive
▪ Fire Flow – Vittoria Square	▪ N Elliott Road
▪ WWTP Sawdust Bays	▪ Redundant Supply Study
▪ Hess Creek Lining	▪ AWIA

Completed
▪ Lift Station Coatings
▪ Water Rights Review
▪ '20/'21 ADA Projects
▪ '20/'21 Pavement Preservation
▪ Seismic Resiliency

Multi-Funded Projects

MULTI FUNDED PROJECTS	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26
Public Works Maintenance Facility Master Plan	\$ 120,000	\$ 131,184	\$ 131,184	\$ 25,000	\$ 25,000	\$ 25,000
N College Street Bike Lanes and Sidewalks/Waterline Relocation/Additional Valves	\$ 284,949	\$ 820,633				
N Springbrook Road	\$ 15,000	\$ 139,500	\$ 218,545	\$ 675,305	\$ 347,782	\$ 273,182
NE Chehalem Drive Water & Wastewater Ext	\$ 65,205	\$ 1,308,000				
N Elliott Road: 99W to Newberg High School	\$ 850,000	\$ 2,757,000				
E Crestview Drive: 99W to Springbrook Road	\$ 244,933	\$ 1,915,067				
TOTAL MULTI FUNDED PROJECTS	\$ 1,580,087	\$ 7,071,384	\$ 349,729	\$ 700,305	\$ 372,782	\$ 298,182

E Crestview Drive; Highway 99W to Springbrook Rd

- Transportation link to the northern portion of the City.
- Includes curbs, gutters, sidewalks, bike lanes, replacement of substandard road segments, water, non-potable water, stormwater and wastewater facilities.
- JT Smith & Allison Properties are partners.
- Construction is underway.



N College Street Bike Lanes & Sidewalks / Waterline Relocation

- Between East Aldercrest and East Foothills.
- Extend the sidewalks and bike lanes down the west side of the road.
- N College Street water line relocation will be constructed ahead of this project.
- Most of the roadway funding through ODOT's STP program.



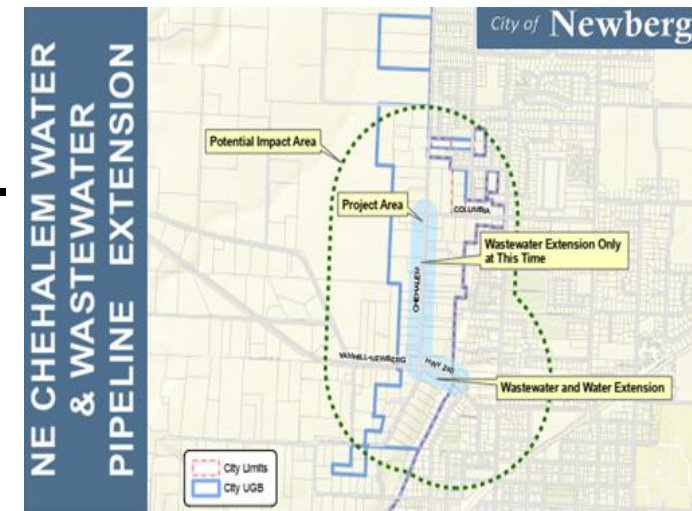
N Elliott Road; 99W to Newberg High School

- This is the south entrance road into the High School.
- There are substandard bike and pedestrian facilities on this roadway which cause safety and accessibility issues.
- Bike lanes and sidewalks are required in an urban environment.
- There is no drainage system on N Elliott Road, resulting in frequent ponding.



NE Chehalem Drive Water & Wastewater Extension

- Properties along NE Chehalem Drive are developing.
- No existing public wastewater and water lines.
- Extension from the current terminus in Hwy 240 to W. Columbia Drive will allow for orderly development (~2800 lineal feet).
- Fire flow deficiencies near W Illinois are addressed.
- Primary funding is system development charges.



Public Works Maintenance Yard

- Fully functional facility is critical to future Public Works response.
- Improvements over several years.
- Installation of fuel tanks and covered equipment parking are underway.
- Fiscal Year 2021/2022 improvements will include:
 - Fleet Fueling Station
 - IT Upgrades
 - Interior Upgrades
 - Paving

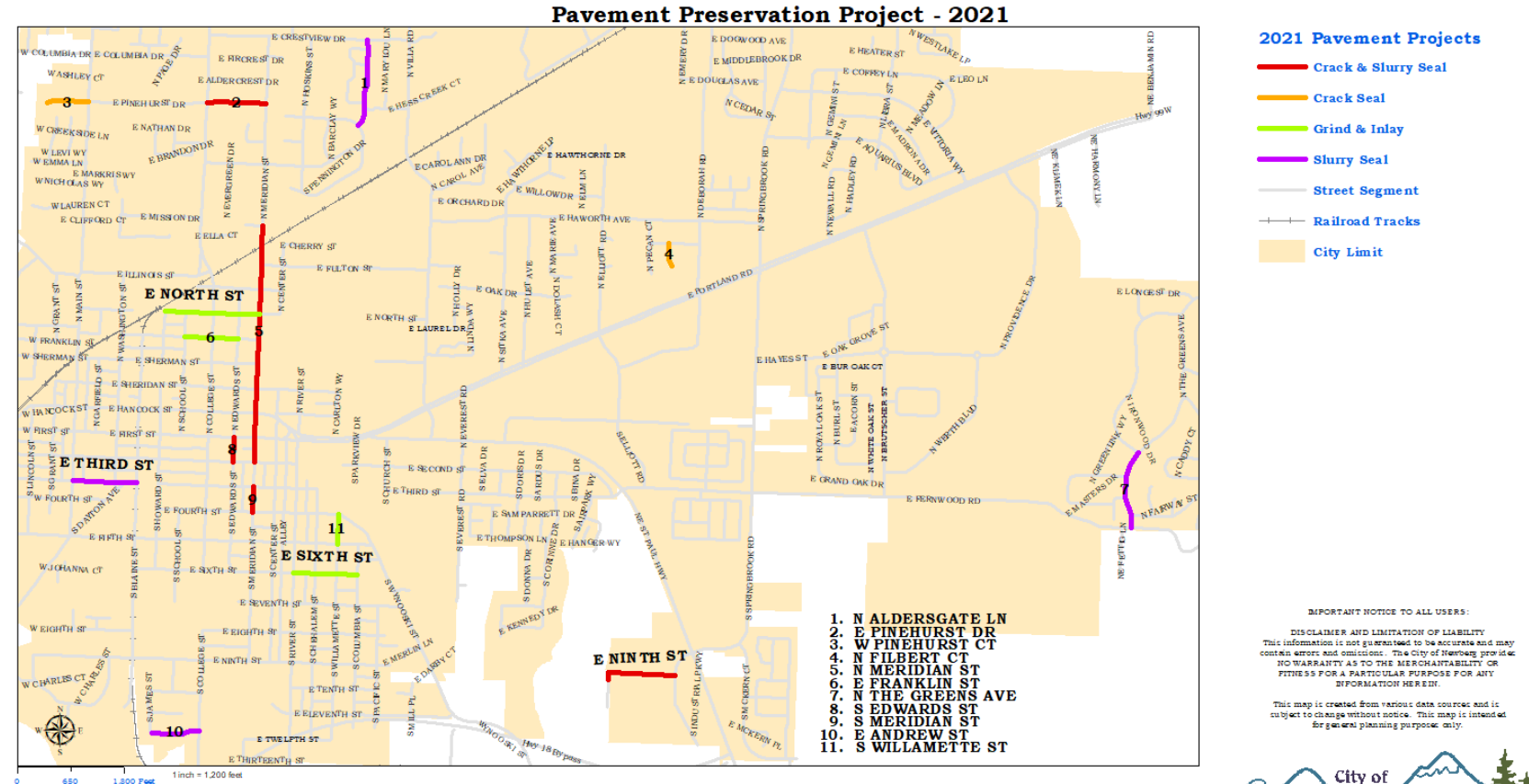


Transportation Projects

TRANSPORTATION PROJECTS	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26
ADA/Sidewalk Improvements	\$ 165,252	\$ 165,000	\$ 173,182	\$ 181,377	\$ 189,519	\$ 198,513
Pavement Maintenance Program	\$ 400,000	\$ 1,891,350	\$ 1,420,545	\$ 1,463,161	\$ 1,275,201	\$ 1,313,458
Main Street/Illinois Intersection Study (I14)	\$ -	\$ 265,220	\$ -	\$ -	\$ -	\$ -
Safe Routes to School	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -
TSP Update	\$ 40,000	\$ -	\$ -	\$ -	\$ 115,927	\$ -
Mountainview Drive		\$ -	\$ -			\$ 597,026
TOTAL TRANSPORTATION PROJECTS	\$ 605,252	\$ 2,471,570	\$ 1,593,727	\$ 1,644,538	\$ 1,580,648	\$ 2,108,997

Pavement Preservation

- Fiscal Year
2021/2022 =
\$1,891,000



ADA/Bicycle/Pedestrian Improvements

- The 2007 ADA/Bicycle/Pedestrian Plan was incorporated into the 2016 Transportation System Plan.
- Critical routes were identified in the plan as the priority routes.
- Additional sidewalks and ramps need to be installed per ADA regulations.
- Fiscal Year 2021/2022 has \$250,000 including the Grant and Loan Programs.
 - Completed sidewalks and ADA ramps around Memorial Park in 2020.
 - Scott Leavitt Park will be 2021.



N Main Street/E Illinois Intersection Study

- Project #I-14 Transportation System Plan.
- This intersection has had a history of collisions and near miss accidents on Main, Illinois and Hwy 240.
- Study will determine appropriate intersection improvements to address safety and mobility.
- Realignment of the intersection may be required.



Safe Routes to School: Edwards



- The City of Newberg received a \$122,000 grant from Oregon Department of Transportation to implement elements from the Edwards Elementary Safe Routes to School Plan.
- Installation of pedestrian crossing signs along E Sixth Street.
- Stop signs at E Sixth St. & S. River St.
- Construction of ADA ramps at E Sixth St, S Blaine St. and S River St.
- Fill sidewalk gaps along S Blaine Street.

Wastewater Projects

WASTEWATER PROJECTS	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26
Inflow & Infiltration Projects	\$ 1,100,000	\$ 400,000	\$ 437,091	\$ 450,204	\$ 463,710	\$ 477,621
WWTP Sawdust Bays	\$ 661,942	\$ 88,167	\$ -	\$ -	\$ -	\$ -
Operations Remodel	\$ 472,000	\$ 1,000	\$ -	\$ -	\$ -	\$ -
Compost Sale Pile Cover	\$ -	\$ -	\$ -	\$ 191,336	\$ -	\$ -
Roofing Replacement	\$ -	\$ -	\$ 76,491	\$ 73,158	\$ -	\$ -
Coating for PS; Fernwood & Creekside	\$ 135,000	\$ -	\$ -	\$ -	\$ -	\$ -
Hess Creek Lining	\$ 250,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -
Structural Improvements to Ex. Oxidation Ditch	\$ 251,469	\$ 600,000	\$ -	\$ -	\$ -	\$ -
I & I Report	\$ -	\$ -	\$ 225,102	\$ -	\$ -	\$ -
Dehydration Unit Burner Rebuild	\$ -	\$ 68,959	\$ -	\$ -	\$ -	\$ -
PLC Study and Replacment	\$ 20,000	\$ 1,525,000	\$ -	\$ -	\$ -	\$ -
WWMP Update	\$ 80,000	\$ -	\$ -	\$ -	\$ -	\$ -
Pinehurst Court	\$ -	\$ -	\$ -	\$ 337,653	\$ -	\$ -
Lift Station Short Term Improvements	\$ -	\$ -	\$ 102,716	\$ -	\$ -	\$ -
Painting & Maintenance to WWTP	\$ 20,600	\$ -	\$ -	\$ -	\$ -	\$ -
WWTP Hydraulic	\$ -	\$ 530,450	\$ -	\$ -	\$ -	\$ -
Clarifier Study	\$ 55,000	\$ -	\$ -	\$ -	\$ -	\$ -
Hess Creek Phase 2	\$ -	\$ -	\$ -	\$ 1,125,509	\$ 1,738,911	\$ 2,388,105
Riverfront Lift Station	\$ -	\$ 212,180	\$ 1,092,727	\$ 1,125,509	\$ -	\$ -
N. Springbrook Trunkline	\$ -	\$ -	\$ -	\$ -	\$ 821,925	\$ -
WWTP Solar Panel Farm	\$ 697,059	\$ 252,941	\$ -	\$ -	\$ -	\$ -
TOTAL WASTEWATER PROJECTS	\$ 3,743,070	\$ 4,178,697	\$ 1,934,127	\$ 3,303,369	\$ 3,024,546	\$ 2,865,726

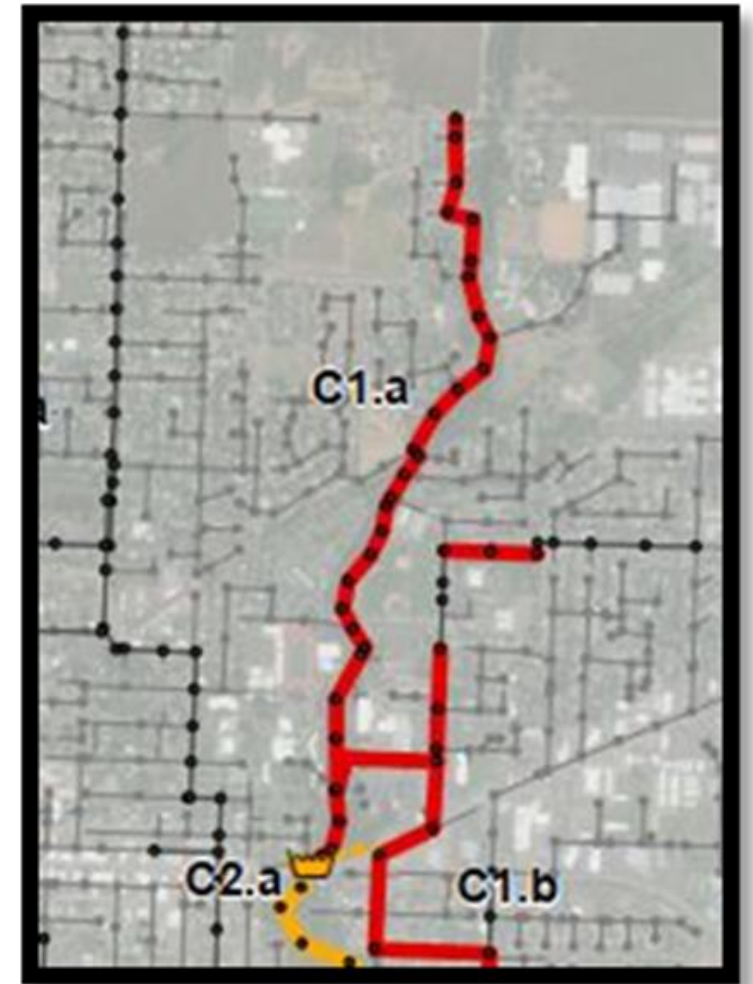
Inflow & Infiltration (I & I)

- Reduce high flows of stormwater into the Wastewater Treatment Plant
- Delay capacity related pipeline impacts and costs.
- 37% reduction of stormwater and groundwater flow to WWTP.
- Prior years: N Springbrook Basin, Sixth Street, E Second & Third, W Third, E North, E Franklin, E Sherman & N Edwards
- 2021: S Charles St. area
- Projects are done **prior** to paving



Hess Creek Trunk Line

- Project #C1.A in the 2018 Wastewater Master Plan - a High Priority Project.
- Access to Hess Creek is limited.
- Pipe is undersized in some locations.
- This project will line the upper portion of the Hess Creek trunk line to reduce Inflow & Infiltration influence and extend the life of the pipe.



Sawdust Bays at WWTP

- Compost cure bay setup is equipped with blowers and temperature probes to facilitate the curing of compost to meet EPA Class A temperature requirements.
- New bay structure provides 3 improvements:
 - Sawdust storage next to compost system
 - Provide 2 bays for compost curing
 - 2 bays for recycled compost during dry season / keep sale compost dry during wet season
- Construction is underway and will be complete summer 2021.



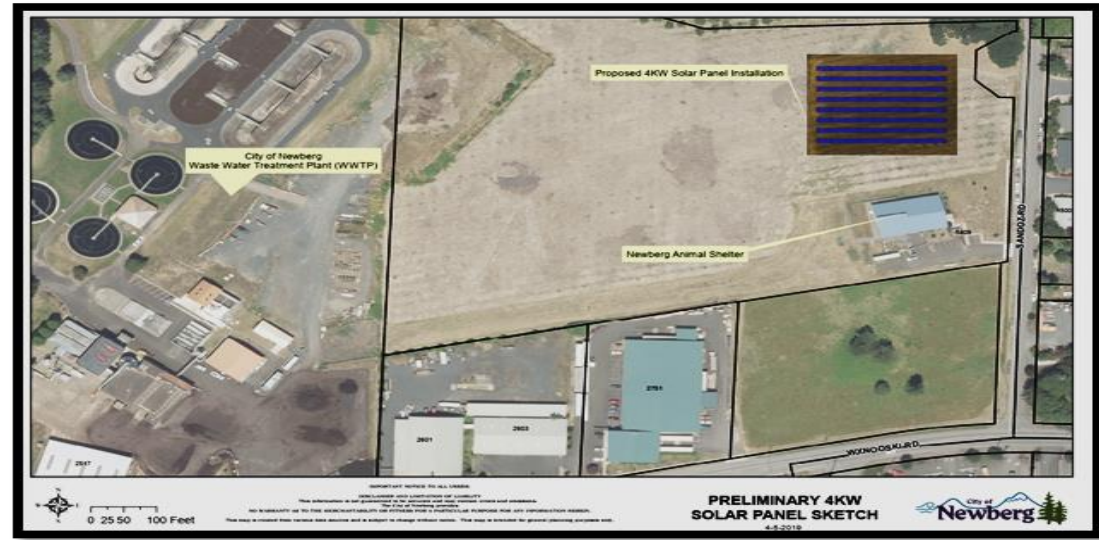
Existing Oxidation Ditches

- Structural repairs of the existing ditches are necessary.
- One ditch has been repaired in prior years.
- Design work is complete and construction will occur Summer 2021.



WWTP Solar Farm

- Received two grants totaling \$400,000 – PGE & ODOE.
- The average annual electric bill for the WWTP is \$250,000.
- Energy savings of 14.1% result in pay back in 7-10 years.
- Construction underway soon with completion in September 2021.



PLC Study & Replacement

- The PLC is the system which holds all of the logic to run the wastewater treatment plant in an automatic mode.
- The Siemens PLC currently in use is no longer being made.
- A 3rd party provides parts for the system but can stop production at anytime, making this system obsolete and unsupported.



Dehydration Unit Burner Rebuild

- The dehydration unit at the Waste Water Treatment Plant is used in the composting process.
- The rebuild involves removing all the existing brick, stacking new brick and installing a coating over the top to reduce the erosion of the brick and extending the life.



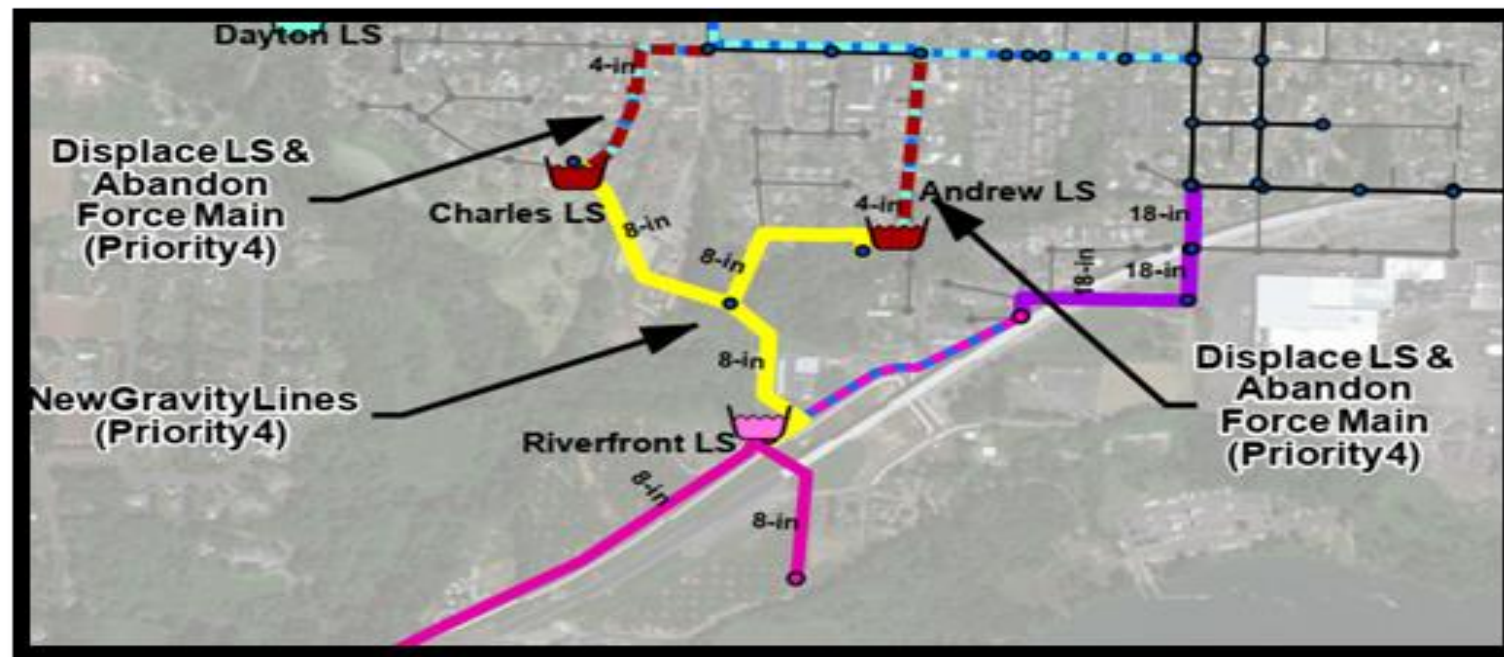
WWTP Hydraulic Improvements



- Wastewater Treatment Plant (WWTP) Hydraulic Improvements are a group of projects to improve the hydraulic flow through the WWTP. They include modifications to the clarifier distribution box, the effluent weirs, and installation of a second (parallel) pipe from the clarifier effluent to the chlorine contact basin.

Riverfront Lift Station

- This project will install a new lift station at the Riverfront area. This will serve the new development proposed and will allow for two smaller lift stations to be decommissioned.

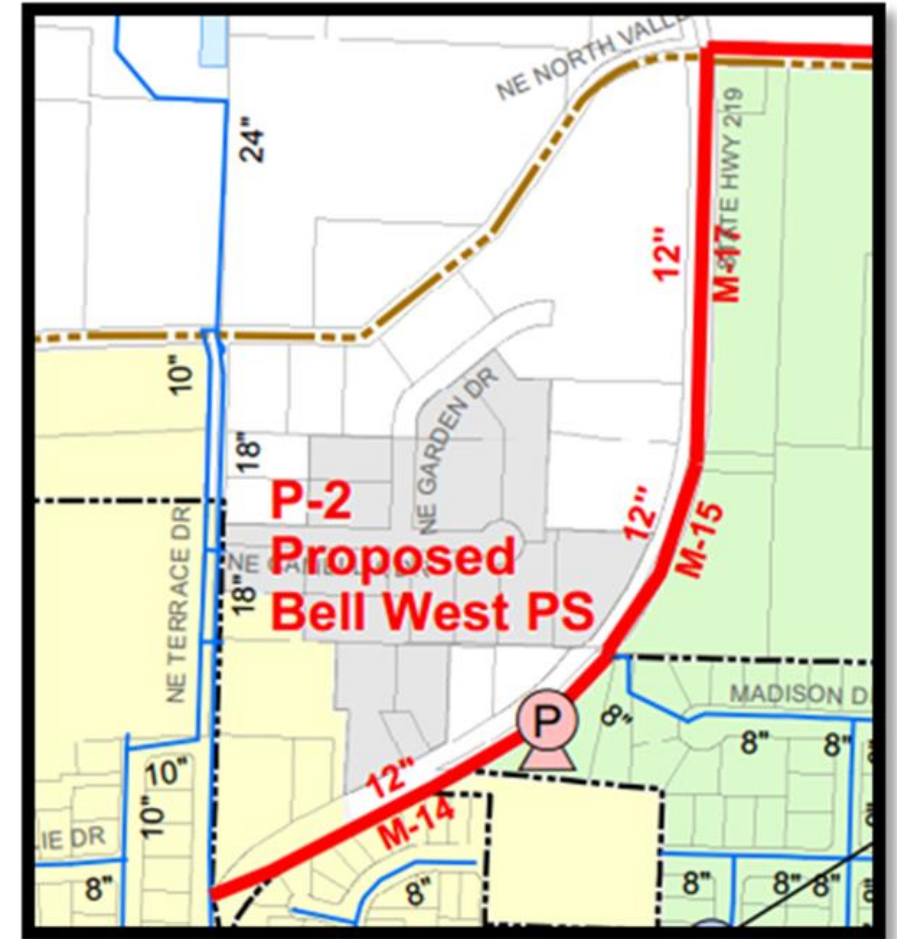


Water Projects

WATER PROJECTS	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26
Redundant Water Supply	\$ 228,405	\$ 1,859,871	\$ 1,254,161	\$ 597,026	\$ -	\$ -
Bell East Pump Station - Zone 3 constant pressure		\$ -		\$ -	\$ -	\$ 918,408
Bell West Pump Station - Zone 2 constant pressure	\$ 228,405	\$ 1,220,000	\$ -	\$ -	\$ -	\$ -
Upsize existing mains and construct new distribution loops to improve fire flow capacity	\$ 60,000	\$ 232,000	\$ 639,919	\$ -	\$ -	\$ -
NE Zimri Drive Zone 3 distribution backbone within UGB		\$ -	\$ -	\$ -	\$ 425,536	\$ -
N College Street - N Terrace Street - proposed Bell West P.S. (P-2) - Veritas School	\$ 51,989	\$ 750,000	\$ -	\$ -	\$ -	\$ -
Routine Main Replacement Program	\$ 200,000	\$ 250,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
Water System Master Plan update	\$ 53,752	\$ -	\$ -	\$ -	\$ -	\$ -
North non-potable water line and Otis Springs pumping improvements	\$ -	\$ -	\$ -	\$ 522,398	\$ 538,070	\$ -
New hydrants and valves	\$ 20,000	\$ 22,510	\$ 23,185	\$ 23,881	\$ 24,597	\$ 25,335
Fixed Base Radio Read	\$ 552,328	\$ 365,790	\$ 231,855	\$ -	\$ -	\$ -
Decommission Well #1		\$ -	\$ 100,000	\$ -	\$ -	\$ -
Decommission Well #2		\$ -	\$ 100,000	\$ -	\$ -	\$ -
WTP Filter Covers	\$ 200,000	\$ 900,407	\$ -	\$ -	\$ -	\$ -
Nvalley Reservoir Driveway		\$ -	\$ 231,855	\$ -	\$ -	\$ -
WTP Property Purchase	\$ 525,000	\$ -	\$ -	\$ -	\$ -	\$ -
WTP Seismic Improvements	\$ -	\$ -	\$ 1,159,274	\$ 1,194,052	\$ -	\$ 1,266,770
Emergency Connection & Controls at WTP	\$ -	\$ 562,754	\$ -	\$ -	\$ -	\$ -
Seismic Improvements at Water Reservoirs	\$ -	\$ -	\$ -	\$ -	\$ 614,937	\$ 633,385
Seismic Improvements - Waterline Replace	\$ -	\$ 168,826	\$ 173,891	\$ 179,108	\$ 184,481	\$ 190,016
HB 2001 Waterline - Main, 4th, Lincoln & 5th	\$ -	\$ -	\$ 231,855	\$ 341,499	\$ -	\$ -
HB 2001 Waterline - Blaine St	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,028,617
HB 2001 Waterline - Meridian	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 557,379
HB 2001 Waterline - 7th, Pacific, 9th & Paradise	\$ -	\$ -	\$ -	\$ 298,513	\$ 491,950	\$ 506,708
HB 2001 Waterline - River	\$ -	\$ 281,377	\$ 426,613	\$ -	\$ -	\$ -
HB 2001 Waterline - 5th	\$ -	\$ 166,575	\$ -	\$ -	\$ -	\$ -
HB 2001 Waterline - 11th & Boston Square	\$ -	\$ 55,150	\$ -	\$ -	\$ -	\$ -
HB 2001 Waterline - Vermillion	\$ -	\$ 12,381	\$ -	\$ -	\$ -	\$ -
AWIA	\$ 156,000	\$ 50,000	\$ -	\$ -	\$ -	\$ 200,000
TOTAL WATER PROJECTS	\$ 2,275,879	\$ 6,897,642	\$ 4,772,608	\$ 3,356,477	\$ 2,479,571	\$ 5,526,619

Bell West Pump Station

- The proposed pump station is needed to supply adequate fire flow and constant service pressure to the Zone 2 expansion area.
- Additionally, this project extend waterlines from N Terrace Drive to the intersection of N College and N Valley Road, and then to the east down NE Bell Road.
- Site scouting is underway.



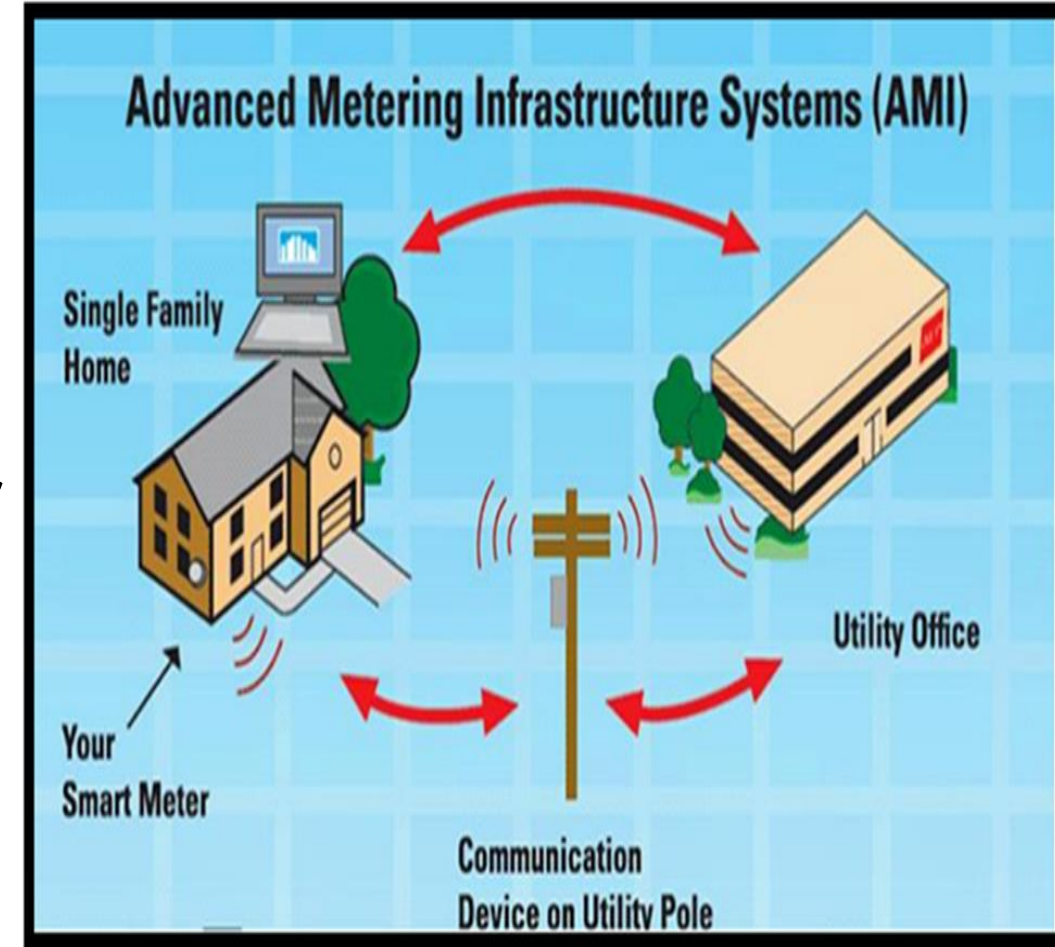
Vittoria Square Fire Flow

- The 2017 Water Master Plan update revealed that this area has a fire flow and pressure deficiency under existing conditions and future growth.
- The installation of 600 lineal feet of 8" waterlines will address the deficiency.



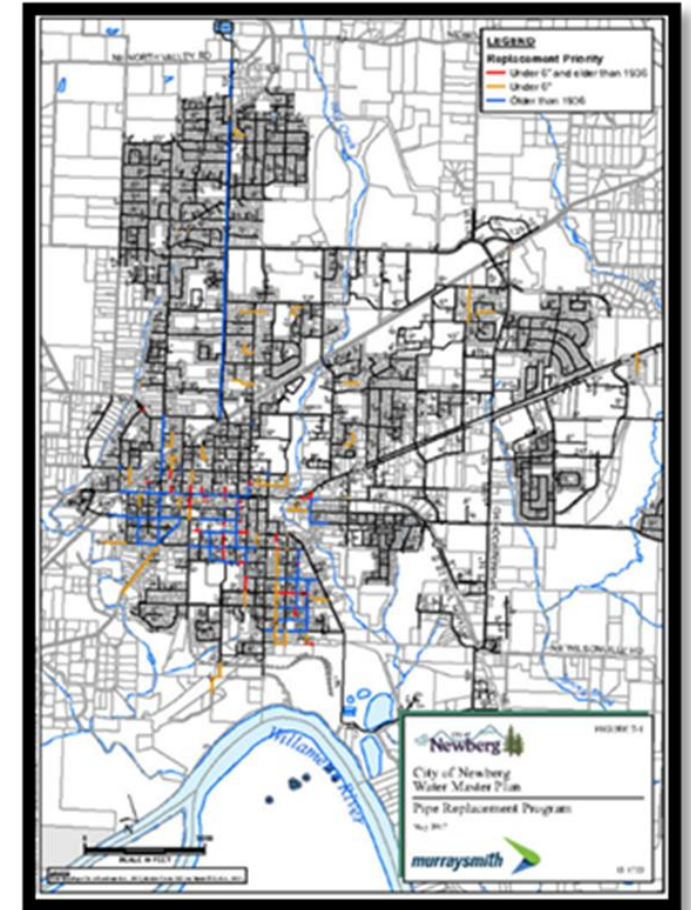
Fixed Base Radio Read

- The system allows meters to be read from utility billing office in real time.
- Saves the City money collecting readings.
- Rate payers can view hourly real-time and historical water use information for their account.
- Operations and treatment plant staff have access to real time data.
- Towers have been installed – meters are being placed.



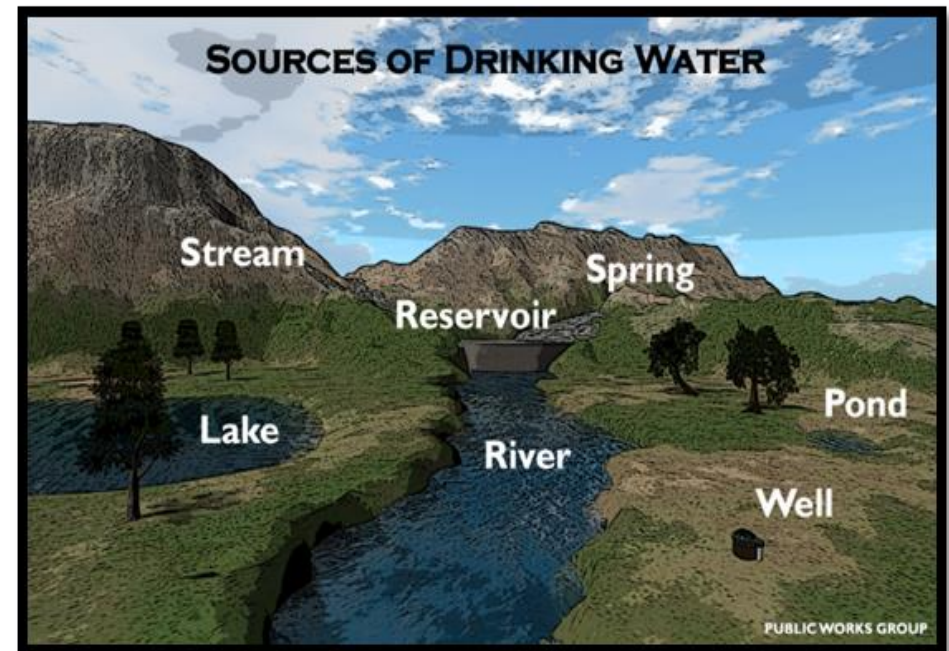
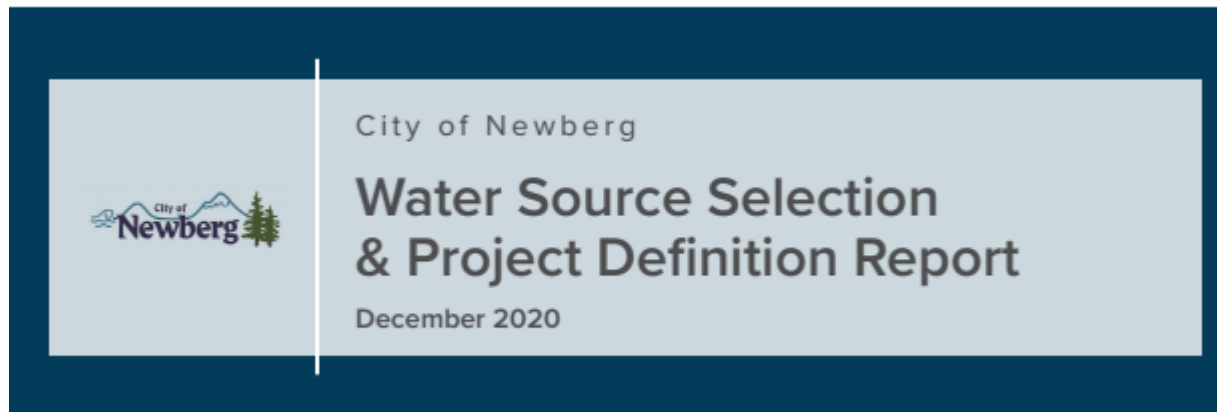
Routine Water Main Replacement

- As existing pipes age and reach the end of life, they need to be replaced.
- It is better to replace pipes on a routine planned basis, rather than on an emergency repairs which are more costly.
- This project includes the replacement of water pipes with more seismically resilient pipe at the same time.



Safe, Reliable Water: Redundant Supply

- This project will look for additional supply option for potable water –includes water rights, exploration, property acquisition and potentially another treatment plant.
- Phase 1 & 2 are complete
- Phase 3 underway



WTP Filter Covers

- Need to cover the treatment plant filters to meet state requirements.
- This project will design and construct the required covers.
- Design work is underway.



WTP Seismic Improvements

- The existing WTP is susceptible to liquefaction, ground deformation, and lateral spreading.
- The Goal: to address these deficiencies identified in the studies. Installing ground improvements between the WTP site and the shoreline to prevent lateral movement and strengthening structural components to withstand a Cascadia Subduction Zone event.

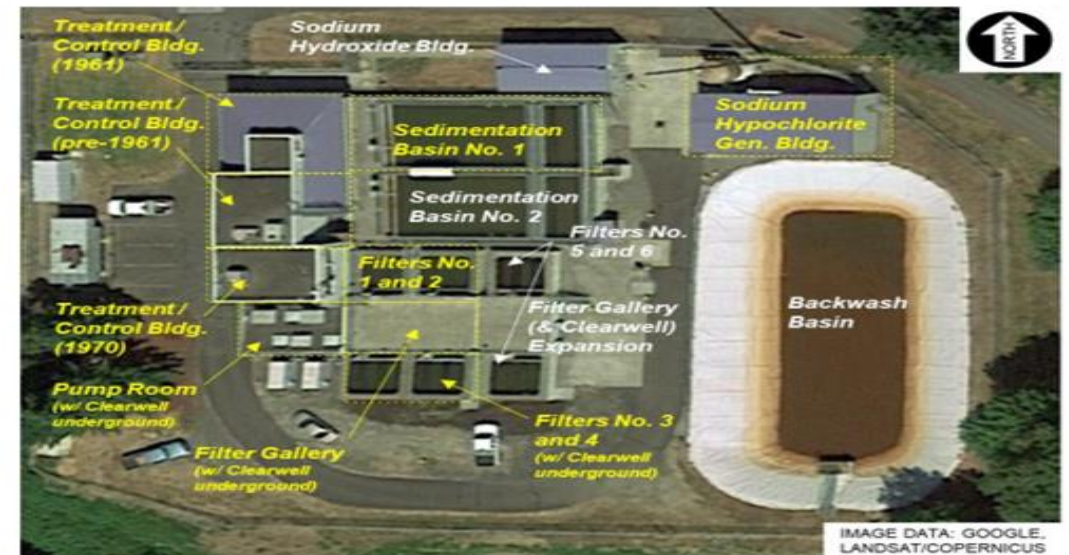


Figure 3.13 – Newberg Water Treatment Plant Location Map

Emergency Connection & Controls at WTP

- This project will implement needed improvements to the water system by adding a point for emergency cross-connection and installing hydraulic control valves. This will allow the plant to be isolated during an earthquake event, allowing raw water to continue into the distribution system.

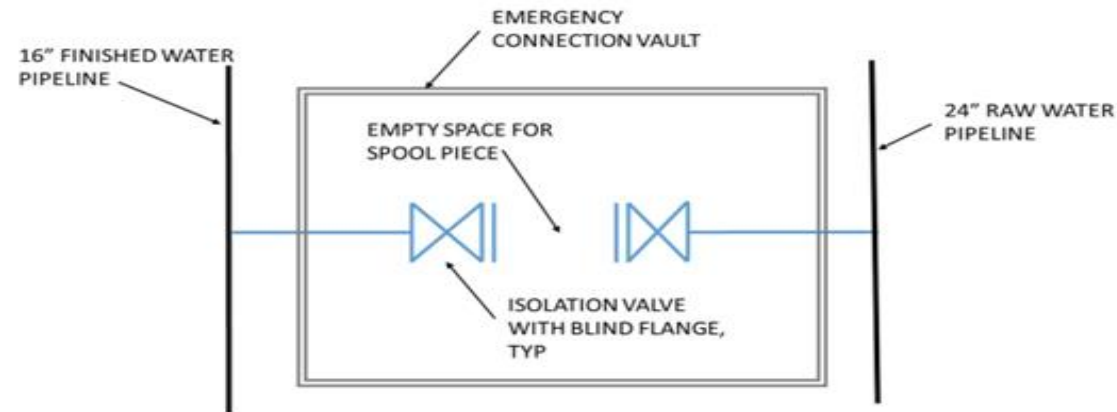
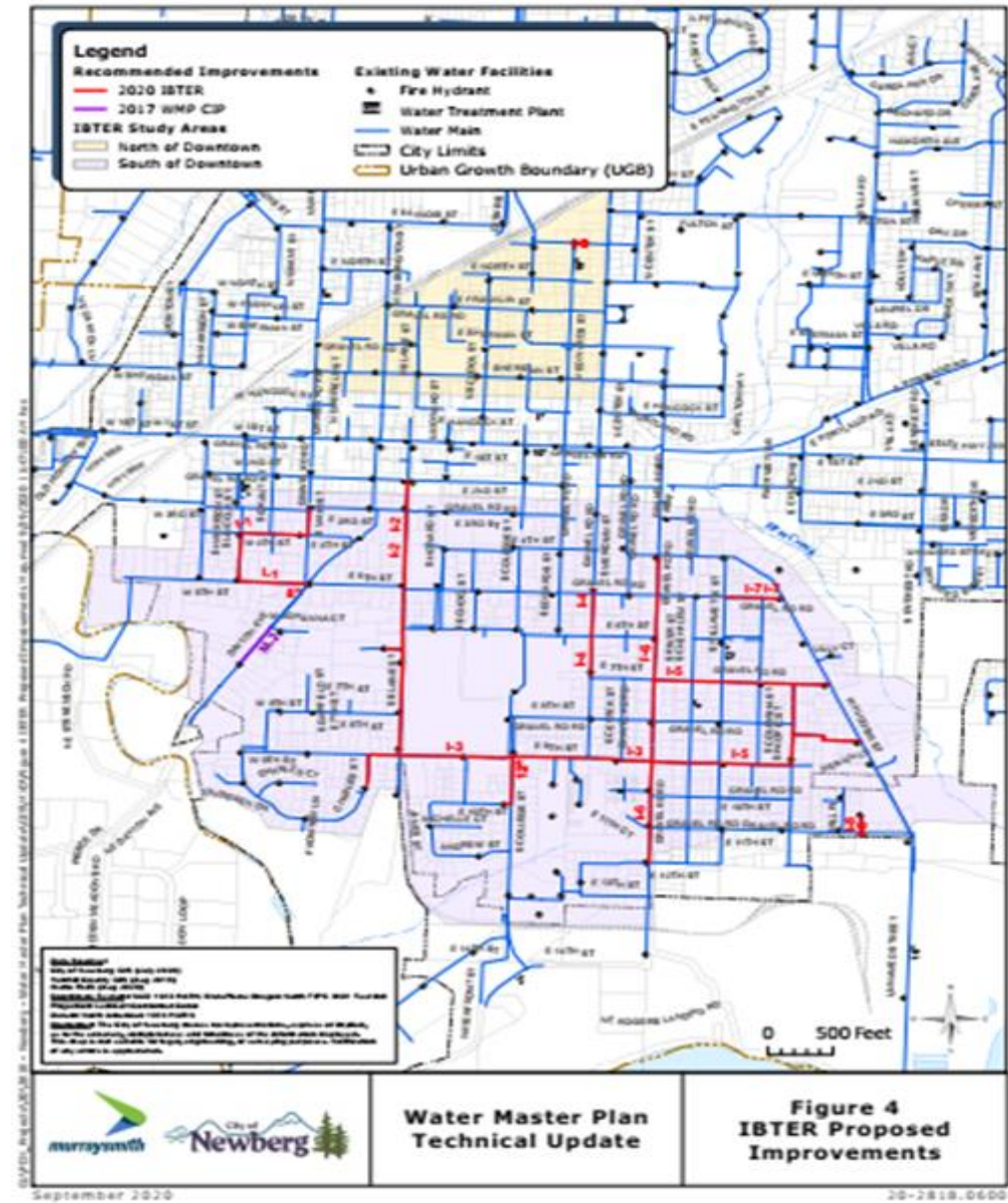


Figure 1. Raw Water Emergency Connection Vault

HB 2001 Improvements

- This project will implement needed improvements to the water system to comply with HB 2001; Middle Housing requirements.
- HB 2001 evaluation for middle housing determined that several water pipes in the area south of downtown are not adequate to provide the required fire flow.
- This project will upsize several pipes in the area south of downtown Newberg.



Stormwater Projects

STORMWATER PROJECTS	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26
S. Blaine Street; Hancock - 11th Street	\$ -	\$ -	\$ 218,545	\$ 652,795	\$ 162,298	\$ -
Libra Street Improvements	\$ -	\$ 303,164	\$ -	\$ -	\$ -	\$ -
OR240/Railroad Tracks/Franklin Street Study & then Fix	\$ -	\$ -	\$ 109,273	\$ -	\$ -	\$ 119,405
Vermillion Street East of 219	\$ -	\$ 79,568	\$ -	\$ -	\$ -	\$ -
800 Block Wynooski Extension	\$ 10,000	\$ 215,000	\$ -	\$ -	\$ -	\$ -
Master Plan	\$ 97,500	\$ 2,500	\$ -	\$ -	\$ -	\$ -
Railroad Ditch between N College & N Meridian Study & Fix	\$ -	\$ 45,000	\$ -	\$ -	\$ -	\$ 119,405
Wynooski Storm from 7th to 800 Block Lining	\$ -	\$ 79,568	\$ -	\$ -	\$ -	\$ -
MP Projects Placeholder	\$ -	\$ -	\$ -	\$ 100,000	\$ 100,000	\$ 100,000
Pavement Fixes	\$ 15,000	\$ 135,000	\$ -	\$ -	\$ -	\$ -
TOTAL STORMWATER PROJECTS	\$ 122,500	\$ 859,799	\$ 327,818	\$ 752,795	\$ 262,298	\$ 338,810

Misc. Storm Drain Repairs

- \$75,000 per fiscal year.
- Storm drainage issues will be addressed prior to the scheduled Pavement Rehabilitation projects.



N Springbrook Road Stormwater

- There are existing flooding problems along Springbrook Road.
- Project will do some early investigation into the causes.



Railroad Ditch; N College - N Meridian

- This area has a variety of contributing flooding factors. Needs a study to determine what the “fix” would be and where to route the stormwater.
- Potential solution to flooding issues could include connecting the stormwater line north of the railroad tracks to E Vermillion Street.



800 Block of NE Wynooski Street

- The current pipe and outfall severely eroded this area east of Wynooski.
- Project will extend the outfall further down the slope to reduce erosion.



FIG. 2: EXISTING OUTFALL



N Libra Street

- Modeling shows flooding issues along N Libra Street.
- Needs frequent maintenance to address silt accumulation.
- Upsize existing stormwater pipes along N Libra Street to 18" to convey current and future flows.

