



TUALATIN VALLEY
WATER DISTRICT

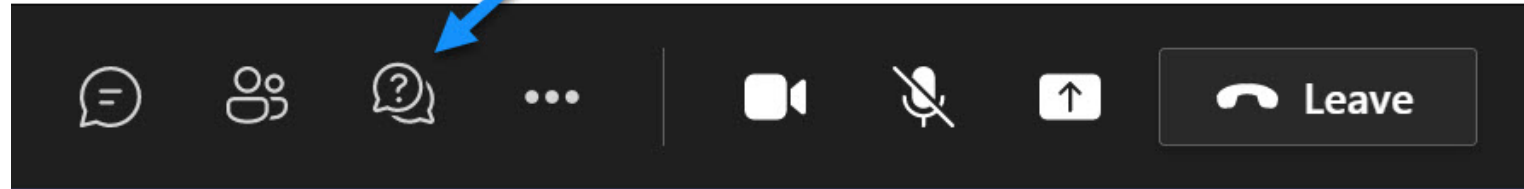
209TH & FARMINGTON FACILITY PROJECT

Talkin' Water

January 2022

VIRTUAL EVENT GUIDELINES

- Sessions are recorded.
- A Question and Answer opportunity will be provided after the presentation.
- You can submit your questions by typing your questions in the thought bubble with a question mark inside.



- TVWD operates in an inclusive and discrimination-free manner to serve all customers.
- Staff will publish questions and comments and may exclude participants who disrupt events.

TODAY'S EXPERTS



Host

Tom Hickman, P.E.
Chief Executive Officer



Presenter

Andrew Barrett, P.E.
Senior Engineer, Project Manager



Presenter

Justin Dyke
Communication & Engagement



209TH & FARMINGTON

Project Overview

Developing the previously unused lot to become a water system operations building

Receive water from the Willamette Water Supply System

- One of three connection points for the Willamette Water Supply System and TVWD
- Provide flow control via operating modes and pressure regulating valves
- Fluoridate incoming water to the TVWD system

Single story brick building enclosing water system equipment

- Similar size to a small single-family home
- Onsite storm water detention and landscaping improvements
- Security fencing surrounding site and storm water pond

Increase water system resiliency & capabilities

- Connections to future and current water sources
- Improved water system flexibility for largest pressure zone



209TH & FARMINGTON

Project Background

Approximately \$8 million investment in the water system

- Project funding is from regular water bills
- Early project plan included onsite pump station and offsite piping to Cooper Mountain
- Cost escalations paused design; costs doubled from budget
- Project re-evaluation and scope reduction to essential needs for WWSS connections

Cooper Mountain Water System Improvements

- Single means to get water to Cooper Mountain summit that needs upgrades
- Current reservoirs and pump stations can't be updated until a second source is available

Cost-Conscience Collaboration with City of Beaverton

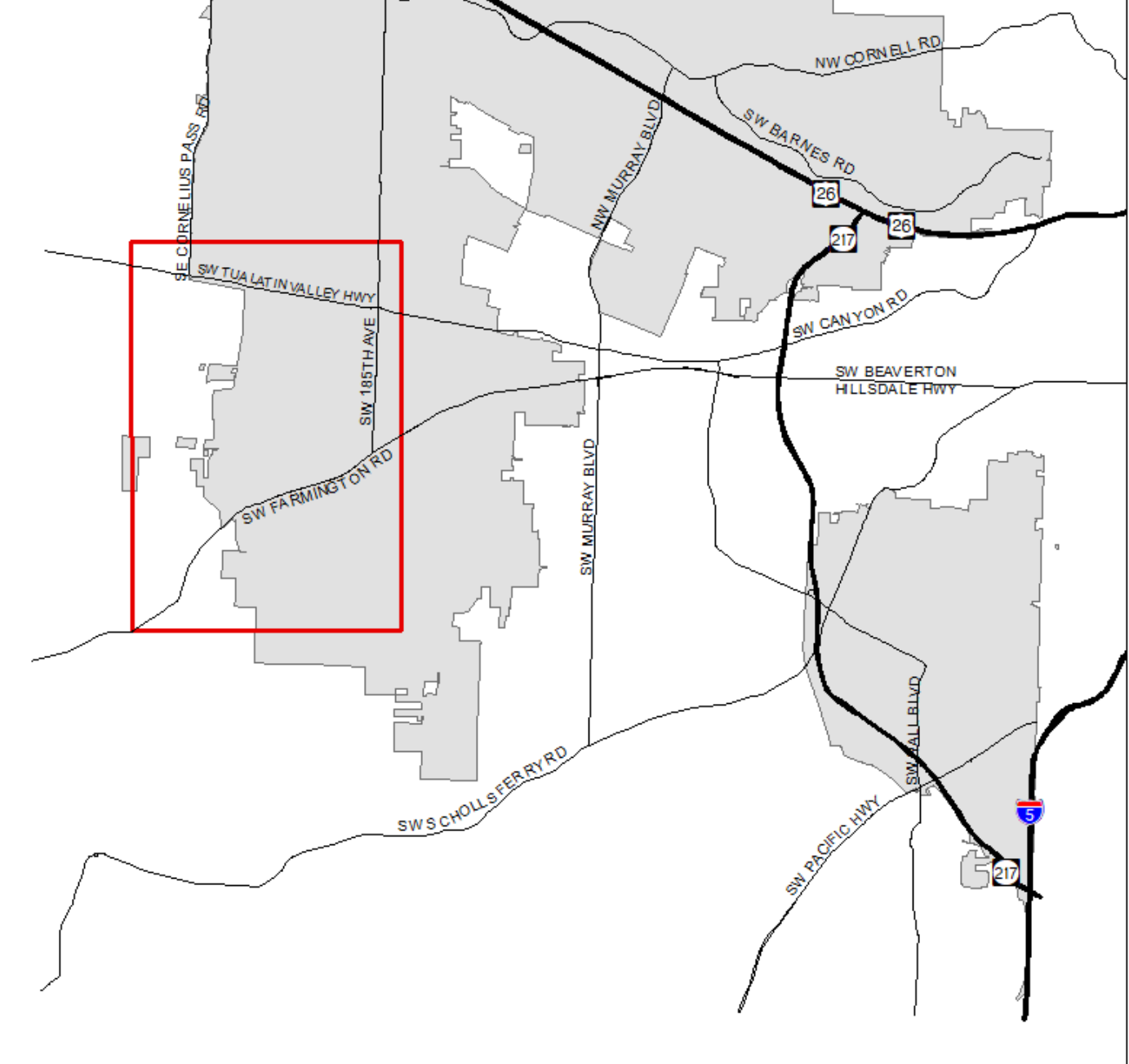
- Kemmer Intertie will connect TVWD & Beaverton reservoirs on Kemmer Road for mutual benefit
- Provides needed second source for Cooper Mountain, enabling improvements at current reservoirs and pump stations
- Creates a \$3M cost reduction for 209th & Farmington project by removing pump station and reducing offsite piping

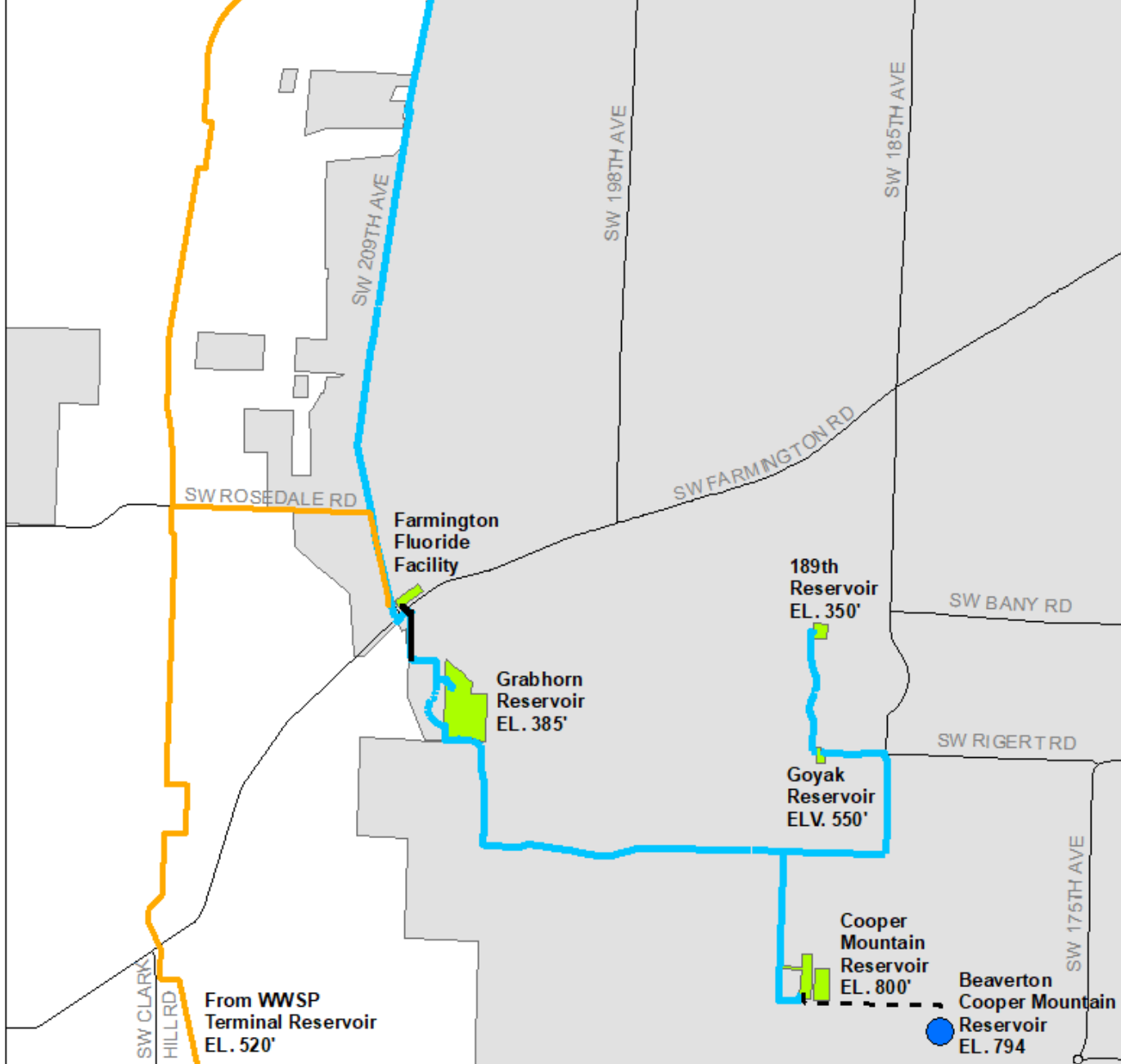
DISTRICT LOCATION

Southwest Corner

Overview Reminder

- One of three connection points from the WWSS to TVWD's water system
- Will be the initial connection point for TVWD's larger service area
- Water pressure change between WWSS and TVWD enables serving the Grabhorn Reservoir without pumping





DETAILED LOCATION

Zooming In

Early Farmington Pumpstation Concept

- Use higher pressure from the WWSS, pump up Cooper Mountain
- Create a resilient water source up Cooper Mountain
- Fluoridate incoming water to TVWD
- *Costs grew enough to re-evaluate other alternatives such as the Kemmer Road Intertie*
- *Net savings of more than \$3M*

Revised Farmington Facility is the Best Option

- Will provide fluoridation for incoming water
- Enough water pressure to feed valley floor & Grabhorn Reservoir
- Water pressure remains high when needed to inject to ASR well
- *Or combination of both*

**WWSS Access
Vaults**



**Public
Sidewalk**



**Stormwater
Detention**



ON THE INSIDE

Making the System Flow

Above ground, enclosed, water system facilities are the safest and most reliable for long term operation and maintenance

- 50 feet of above ground pipe connecting incoming and outgoing water mains
- 4 water system isolation valves
- One 16" pressure regulating valve
- SCADA equipment for remote site controls

Incoming water to TVWD will be fluoridated as it enters the distribution system

- Sodium fluoride is added by a digital control unit and specialized mixing equipment
- A consistent dosage of 0.7 mg/l enters the water system
- Fluoridation levels are continuously monitored by digital analyzers



OFFSITE WATER MAINS

November 2021 – February 2022

New offsite water mains will deliver water from the project site to the larger water system.

- 16" and 24" water mains across Farmington, connecting to existing water mains serving Farmington area
- 24" water main up Grabhorn to Leland Drive, connecting to Grabhorn Reservoir
- Existing 24" water main under Leland Drive was installed in 2018

Current status

- 97 percent of offsite pipe work is complete
- Pressure testing & disinfection completed last week, new mains are connected to the water system
- Permanent road restoration this spring, weather dependent





LIVING NEXT TO TVWD

Typical Activity at the Site

Water operator site visits:

- Certified operators will conduct required daily inspections inside the operations building
- 1-2 operators, typically a single pickup truck

Grounds team site visits:

- Exterior site maintenance that changes with the seasons
- Weekly visits in summer and fall, monthly visits during winter and spring
- Small teams or individuals, pickup truck or small dump truck

Deliveries do occur for materials, typically quarterly

- Box trucks are used by most delivery companies

TVWD staff may use the facility as a parking area to fill out reports or occasionally take their lunch break.

CONSTRUCTION SCHEDULE

Schedule is Estimated – Expect Changes & Refinements



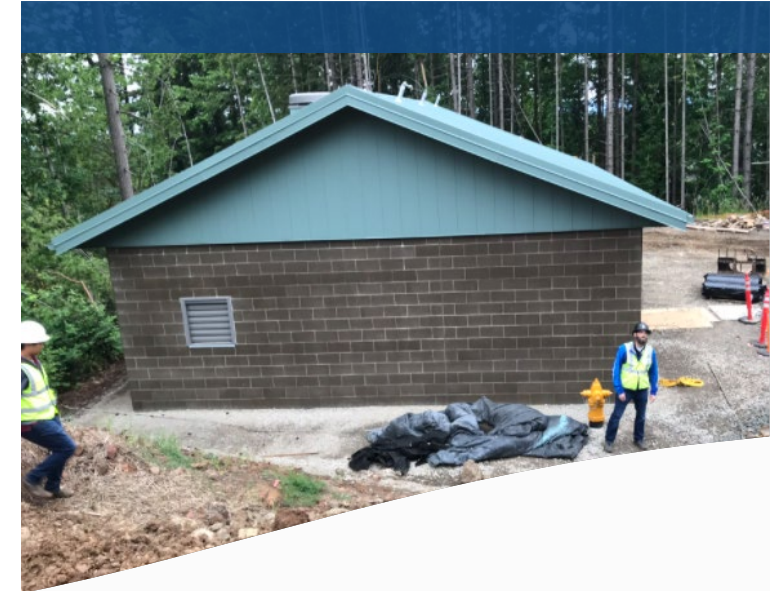
Site Preparation & Earth Work

- Approximately 2 months, after permits are issued
- Large equipment, noise, vibration expected
- Grade to closely match roadways



Building Construction & Onsite Piping

- Approximately 10 months
- Local impacts change based on current work
- Frequent updates from TVWD



Final Punchlist & Commissioning

- Approximately 3 months, January 2023
- TVWD operator training

KEEP IN TOUCH

We are Neighbors

Project Website & Open House

TVWD.org/Farmington

- Updated monthly (approximately)
- Key milestones achieved or upcoming
- Changes to work schedules
- Renderings of completed project

Sign Up for Email Updates

TVWD.org/Farmington

- Updates are sent every 2-3 weeks
- Most frequently used communication tool
- Key announcements, progress photos, schedule changes
- If you receive e-bills, you're included already
- Please sign up!

Contact the TVWD Team

Email:

Outreach@TVWD.org

Phone:

503-848-3000

YOUR TURN! ANY QUESTIONS?



Presenter

Andrew Barrett, P.E.

Senior Engineer, Project Manager



Presenter

Justin Dyke

Communication & Engagement