



Tualatin Valley Water District 

 Hillsboro Water


Willamette Water Supply Program Overview


Tualatin Valley Water District

Board of Commissioners Work Session

December 3, 2013




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Agenda

- Introductions
- History of the Willamette as a Regional Water Supply
- Current Project Agreement
- Willamette Water Supply Program
 - Interim Organization
 - Projects & Activities
- Questions & Discussion

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Willamette Water Supply A Regional Source

1970's – Water rights and regional water supply studies


1990's – Pilot plant, water quality monitoring, and formation of Willamette Water Supply Agency (WWSA)


2000's – More water quality monitoring, land purchase, Willamette River water treatment plant (WTP) construction, Wilsonville's water source, transmission pipeline studies, charter amendments in Tigard, Tualatin and Sherwood, Sherwood purchases WTP capacity, and WWSA changes name to Willamette River Water Coalition (WRWC).

2010's – More transmission pipeline studies and Sherwood's water source

2013 – Hillsboro and TVWD identify Mid-Willamette as preferred supply option

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Recent Events

- **February 2013** – City of Hillsboro Utilities Commission selects the mid-Willamette option as the preferred alternative. The decision is predicated on finding a partner.
- **April 2013** – TVWD Board of Commissioners adopts the mid-Willamette option as the preferred alternative for an additional supply source for the District by 2026.
- **August 2013** – TVWD Board of Commissioner adopt an Ordinance establishing the policies and providing direction to move forward on the development of the mid-Willamette option.

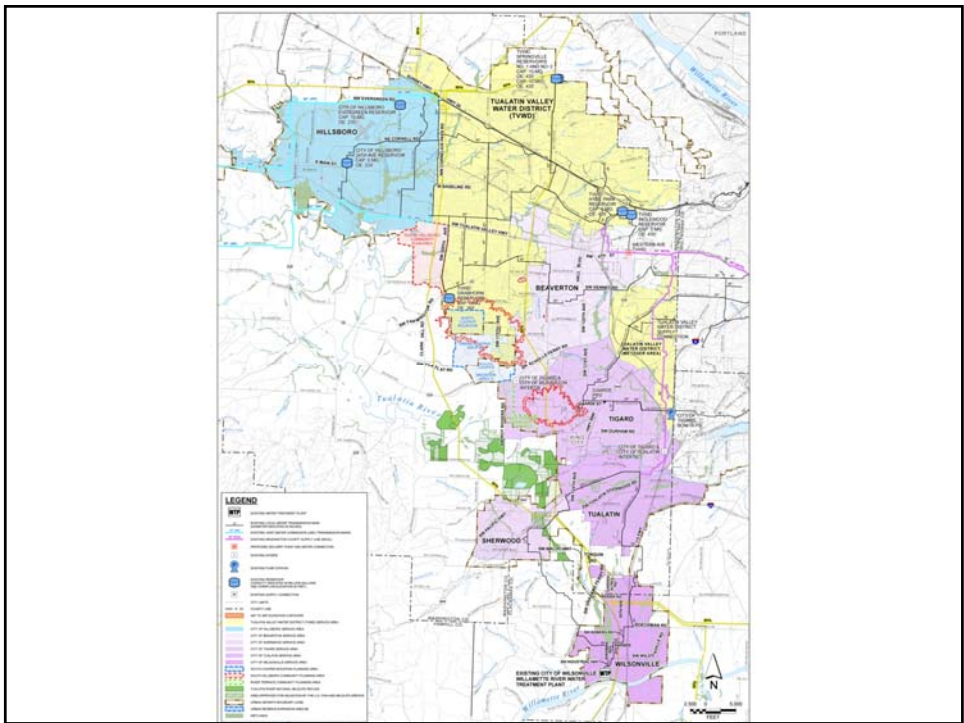
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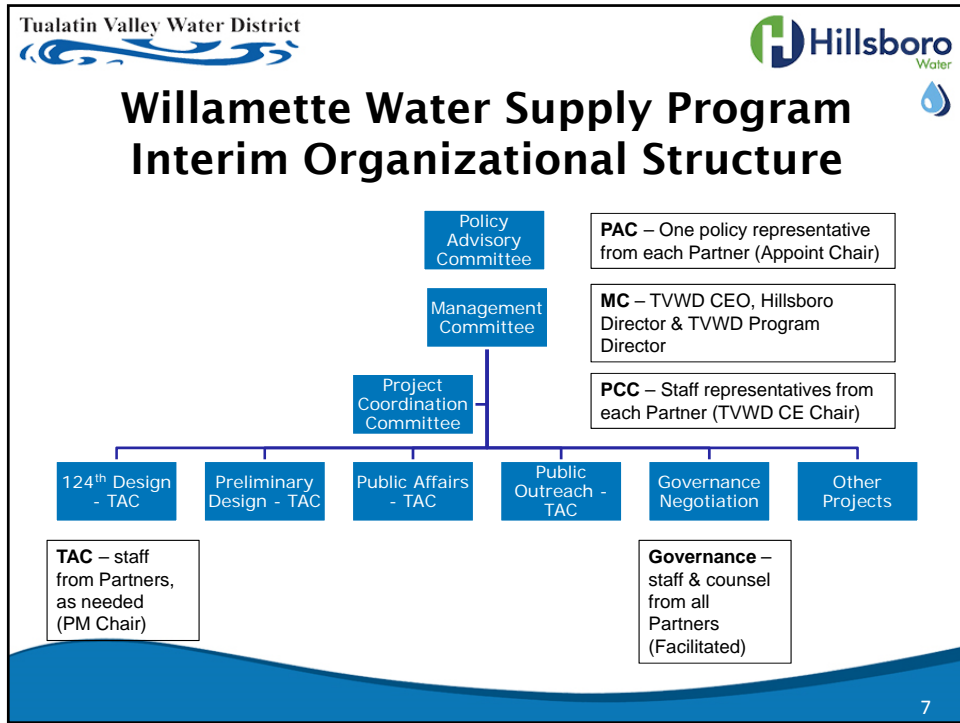
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Current Project Agreement

- Scope
- TVWD – Hillsboro Partners
- Tualatin, Tigard & Beaverton Joinder Agreements

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SW 124th Avenue Pipeline Project

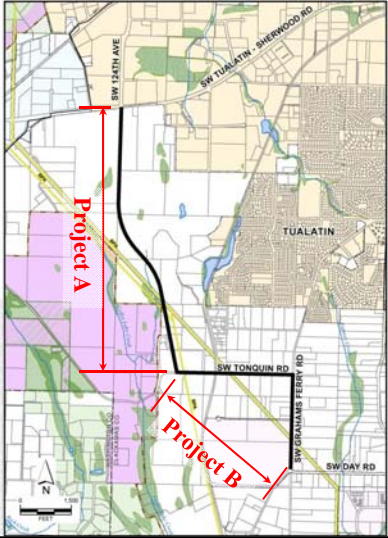
Mike Britch, P.E.
TVWD Chief Engineer
SW 124th Avenue Pipeline Interim Project Manager

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SW 124th Avenue Pipeline Project

- Schedule: ~2 ½ mos into 2 yr proj.
- Contract Amount: \$2,426,942
 - Project A: SW 124th Avenue (~8,200 ft) \$1,439,905
 - \$868,364 TVWD
 - \$571,541 Hillsboro
 - Project B: Tonquin Rd/Grahams Ferry Rd (~6,400 ft) \$987,037
 - \$595,253 TVWD
 - \$391,784 Hillsboro



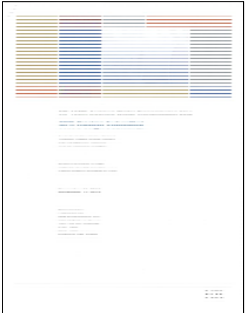
The map shows the project area in Tualatin, Oregon. Project A is a vertical red line along SW 124th Ave. Project B is a red line connecting SW Tonquin Rd, SW Grahams Ferry Rd, and SW Day Rd. Other roads shown include SW Tualatin - Sherwood Rd, SW Day Rd, and SW Grahams Ferry Rd. A north arrow and scale bar are also present.

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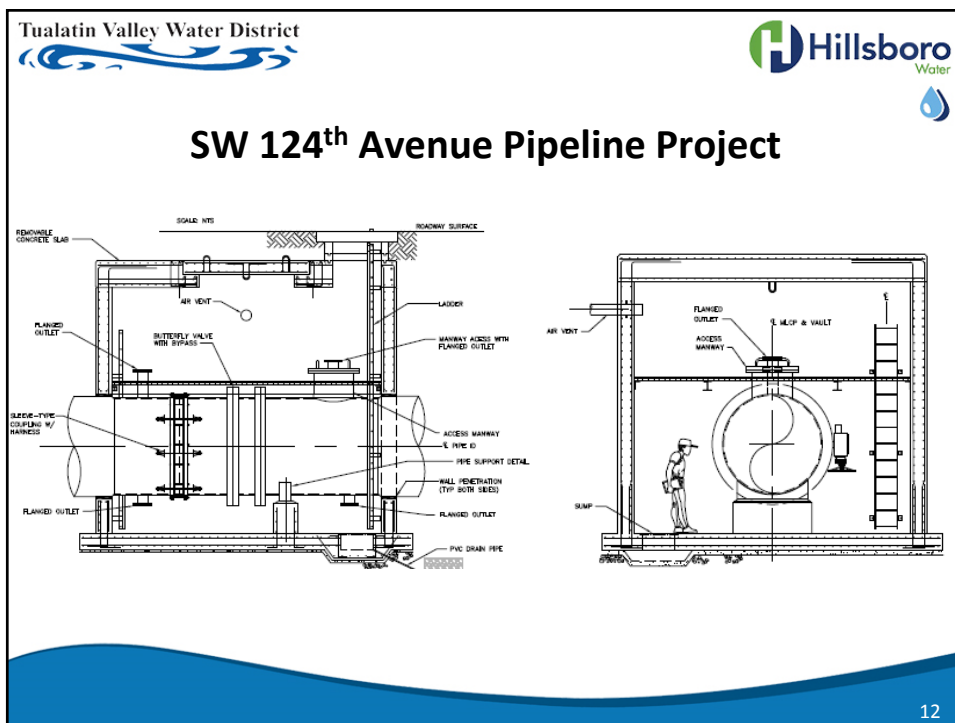
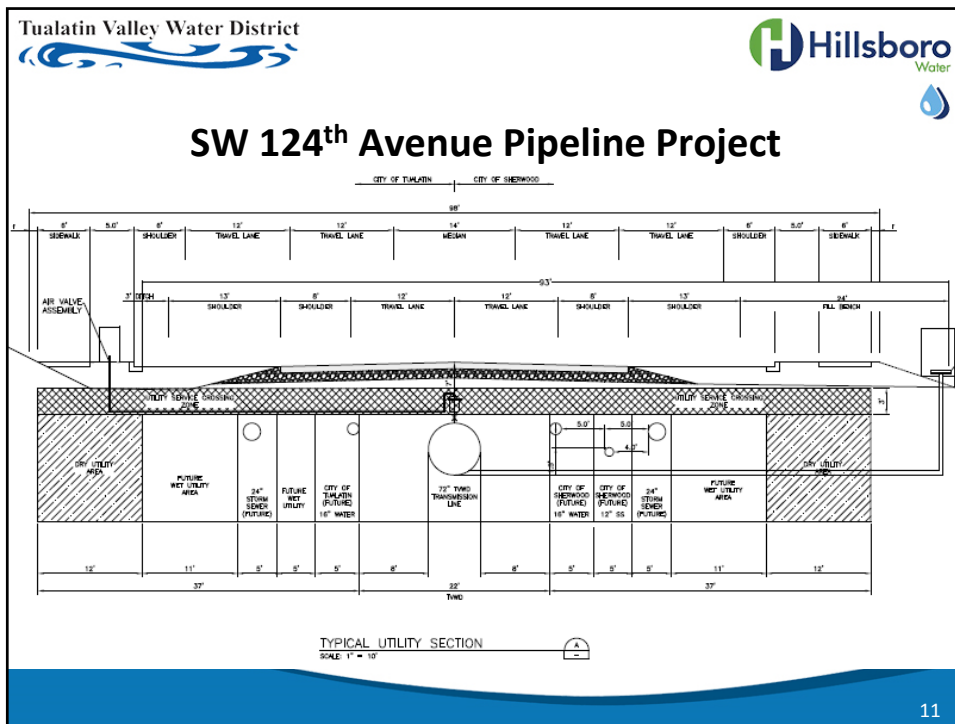
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SW 124th Avenue Pipeline Project

- Recent activities:
 - 30% Design Submittal November 11th
 - Working through development of appurtenances and location of pipe in roadway corridor




The screenshot shows a technical drawing or design document with a grid of colored lines and text, likely representing a plan view of the pipeline project.



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SW 124th Avenue Pipeline Project

- Key Issues:
 - Near-term (3 mos.)
 - Ongoing coordination with Washington County
 - BPA coordination
 - 60% design in January

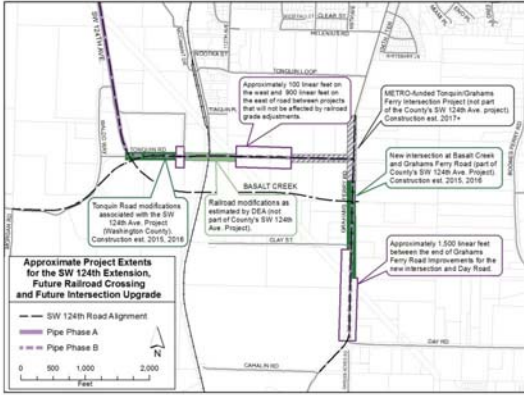


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SW 124th Avenue Pipeline Project

- Key Issues:
 - Mid-term (3 – 9 mos.)
 - Project B: Tonquin Rd/ Grahams Ferry Rd (~6,400 ft)
 - WA County
 - Railroad
 - BPA



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SW 124th Avenue Pipeline Project

- Key Issues:
 - Long-term (9 mos. to 2 yrs)
 - Complete design
 - Integration of work with Washington County's work
 - IGA with Washington County for construction

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Willamette Water Supply Program (WWSP) Preliminary Design

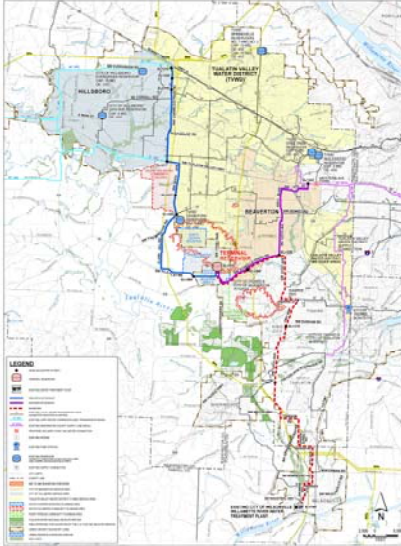
Mike Britch, P.E.
TVWD Chief Engineer
WWSP Preliminary Design Interim Project Manager

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WWSP Preliminary Design

- Schedule: ~2 mos into 2 yr proj.
- Contract Amount: \$4,177,970
 - Base Contract: \$3,498,277
 - \$2,109,707 TVWD
 - \$1,388,570 Hillsboro
 - Optional Task 20: \$679,693
 - \$409,903 TVWD
 - \$269,790 Hillsboro

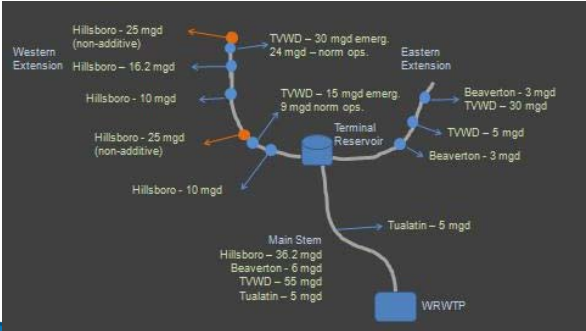


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WWSP Preliminary Design

- Recent activities:
 - Identifying Partner flows & Level of Service requirements



The flow diagram illustrates the water distribution network. At the bottom, the Main Stem and Terminal Reservoir supply water to various service areas. The Main Stem flows are: Hillsboro - 26.2 mgd, Beaverton - 8 mgd, TVWD - 56 mgd, and Tualatin - 5 mgd. The Terminal Reservoir flows are: Hillsboro - 10 mgd, TVWD - 15 mgd (9 mgd norm ops, 6 mgd emerg), Beaverton - 3 mgd, TVWD - 5 mgd, and Beaverton - 3 mgd. The Western Extension flows are: Hillsboro - 25 mgd (non-additive), Hillsboro - 16.2 mgd, and Hillsboro - 10 mgd. The Eastern Extension flows are: TVWD - 30 mgd (24 mgd norm ops, 6 mgd emerg) and Beaverton - 3 mgd. The Main Stem also flows to Tualatin - 5 mgd and the WRWTP.

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WWSP Preliminary Design

- Recent activities:
 - Preliminary pipeline sizing

Present Value of Construction and Power Cost
Over Periods of 50 and 100 years
Assumed: Pipe Cost @ \$ 5.12 m/ft;
Power Cost @ 7.68 cents/kWh;
10 % of time pumping 30 MGD and 90% of time pumping 48 MGD

Assumed capacities for preliminary hydraulics

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WWSP Preliminary Design

- Recent activities:
 - Determining Terminal Storage requirements
 - 30 MG (initially)
 - 50 MG total (future)

Summary of Scenario Analysis (Build-out)

	Initial Volume (MG)		Final Volume (MG)	
	Total	Emergency	Total	Emergency
At Build-out				
Scenario 1	20	3.0	30	7.6
Scenario 2	30	11.8	45	20.8
Scenario 3	40	20.5	60	33.9

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WWSP Preliminary Design

- Key Issues:
 - Near-term (3 mos.)
 - Finish preliminary hydraulic evaluations
 - Finish preliminary terminal storage evaluations
 - Ongoing coordination with SW 124th Avenue Pipeline Project
 - Complete initial assessment of intake facilities

Assumed capacities for preliminary hydraulics

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WWSP Preliminary Design

- Key Issues:
 - Mid-term (3 – 9 mos.)
 - Terminal Storage site identification
 - Alternative alignment analysis

Development Constraints

Buildable Lands Inventory



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WWSP Preliminary Design

- Key Issues:
 - Mid-term (3 – 9 mos.)
 - Develop design guidelines
 - Develop permitting strategy
 - WTP next steps



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WWSP Preliminary Design

- Key Issues:
 - Long-term (9 mos. to 2 yrs)
 - Complete preliminary design
 - Consider property acquisition opportunities

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Willamette Water Supply Program Public Affairs and Public Outreach

- Public Affairs – navigating the process with decision makers
 - Goal: Allow the project to proceed smoothly
- Public Outreach – navigating the process with the public and those impacted by the project.
 - Goal: Provide information that creates a greater understanding of the project
- Separate yet coordinated tasks

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Willamette Water Supply Program Public Affairs and Public Outreach

- Request for Qualifications Process
 - Received two submittals for the Public Affairs and two submittal for the Public Outreach
 - Decision by next week
 - Agreements in place at the beginning of next year
- Project Manager (Both Projects) – Todd Heidgerken

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Willamette Water Supply Program Governance

- Governance will need to address
 - Ownership
 - Operation and maintenance of facilities
 - Expansion of facilities
 - Decision making process
- Recognition of Existing Obligations and Agreements
 - Existing agreements are in place
 - Current users of the facilities
 - Allocation of WRWC water right
- Approach is to develop “Principles” to help in the development of a governance agreement

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Willamette Water Supply Program Governance – TVWD Principles

1. Allowance for predictable and non-volatile rates
2. Alignment of investment obligations and authority
3. Flexibility to accommodate partners’ operational needs
4. Simplicity of the institution
5. Durability of the institution
6. Cost effectiveness and value to TVWD


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Willamette Water Supply Program Governance – TVWD Principles

7. Commitment to long-term investment in order to maintain assets
8. Flexibility to accommodate future requirements
9. Commitment of partners to participate and honor their obligations
10. Commitment to not harm other partners
11. Prior commitments honored


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Willamette Water Supply Program Governance – Hillsboro Water Principles

1. Protection of Voting Rights
2. Clear Structure of Governing Body and Authority
3. Clear Definition of Managing Agency Responsibilities
4. Build a Resilient Institution
5. Commitment to Infrastructure Maintenance
6. Cost Effectiveness


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Willamette Water Supply Program Governance – Hillsboro Water Principles

7. Provide for Operational Flexibility
8. Clearly Outline Capacity Ownership Interests
9. Accommodate Future Expansions
10. Partners Won't Harm Each Other
11. Managed as a Regional Facility
12. Provide Notification Requirements

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Willamette Water Supply Program Governance – Next Steps

- Soliciting interest on governance facilitation services
- Selection of facilitator and finalize contract with TVWD
- Review governance issues from each organization to be addressed
- Draft governance principles
- Draft Intergovernmental Agreement (IGA) (new or amendments)
- IGA approvals for each agency by early 2015
- Project Manager – Todd Heidgerken

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**QUESTIONS
AND
DISCUSSION**