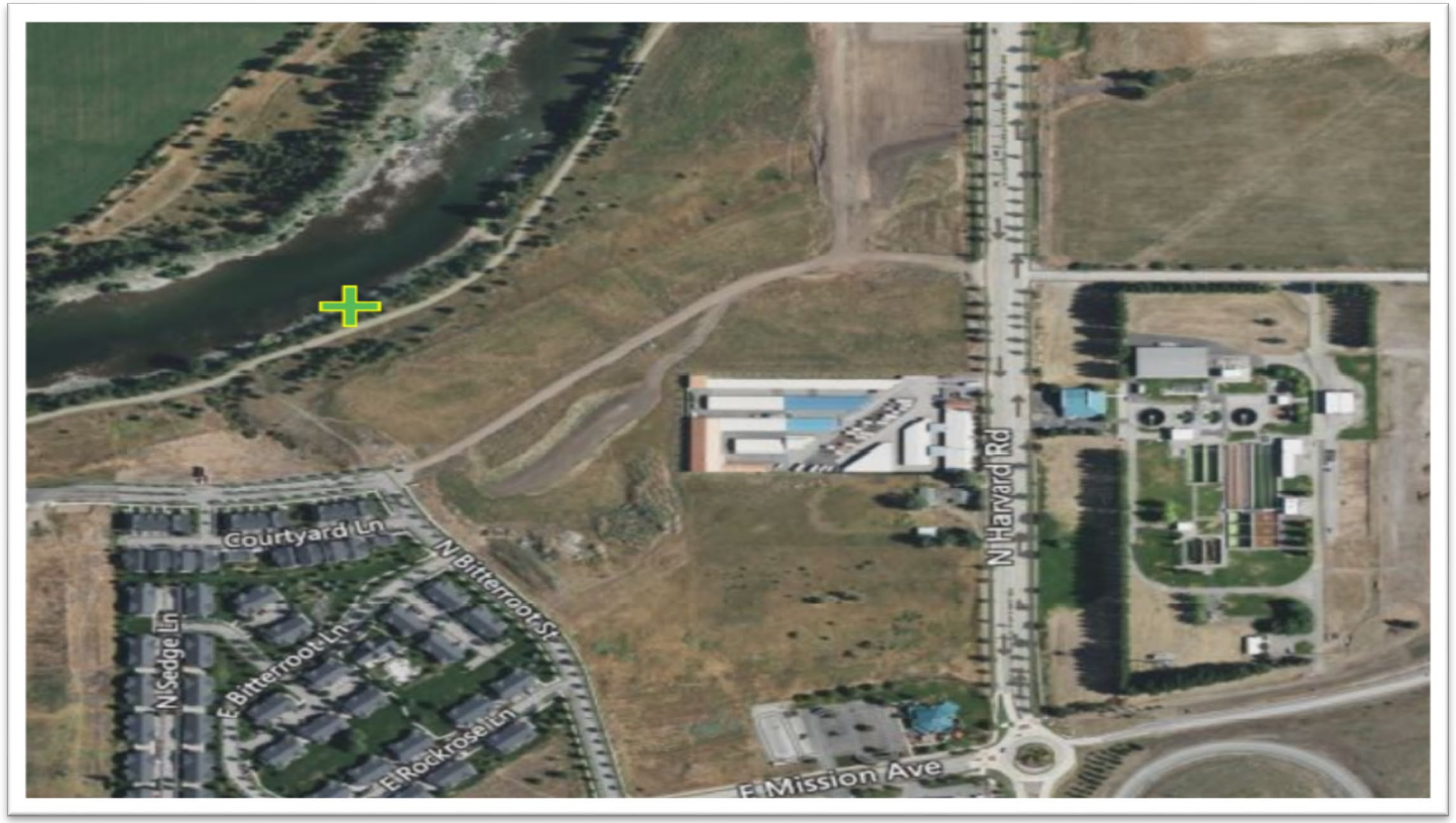


DEPARTMENT OF ECOLOGY
State of Washington

Liberty Lake Sewer and Water District NPDES Permit WA0045144 – Public Meeting

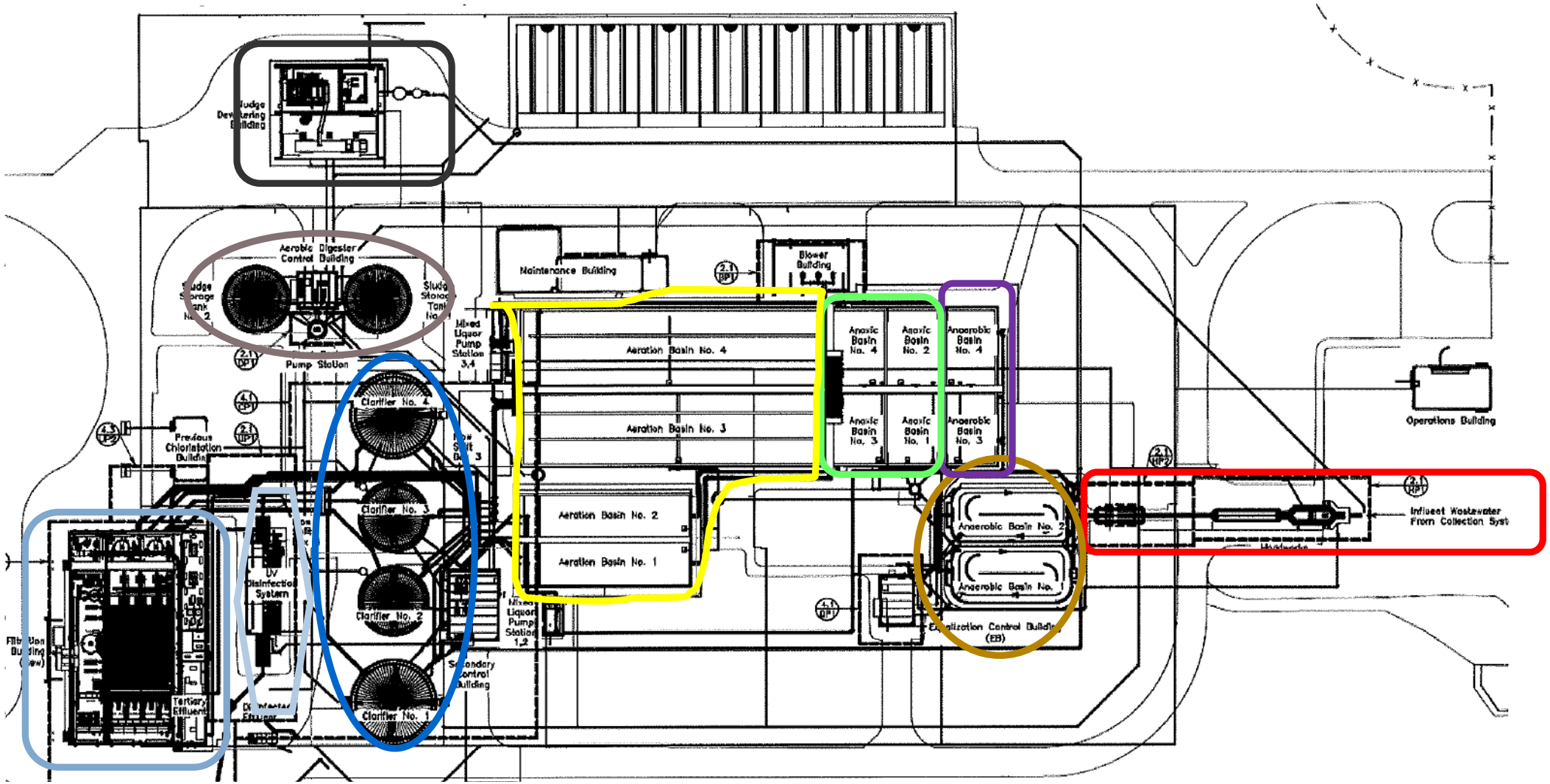
Diana Washington

IMPORTANT TO KNOW

The District's permit protects water quality

- Ecology
  - Assessed the quality of the receiving water
  - Based limits for pollutants on protecting the receiving water
- Biological nutrient removal with membrane filtration meets AKART for Nutrients and PCBs

Flow Diagram



Spokane River and Location of Discharge

- Characteristics of the discharge and river are unique
- Liberty Lake Sewer & Water District (LLSWD) discharges to Spokane River in WRIA 57 at River Mile (RM) 92.3

Spokane River 303(d) listings at the point of discharge

Current Category	Current 303(d) listings
5	Polychlorinated Biphenyls (PCBs) (Fish Tissue)
5	2,3,7,8-TCDD (Dioxin) (Fish Tissue)
5	Temperature

Spokane River
Total Maximum Daily Loads (TMDLs)

305(b) listings Category 4	Water Quality Improvement Plans
Dissolved Oxygen	Spokane River DO TMDL
Lead	Spokane River Cadmium, Lead, and Zinc TMDL
Zinc	Spokane River Cadmium, Lead, and Zinc TMDL

Spokane River DO TMDL Wasteload Allocations (March – October)

		Alternative Static Equivalency WLA
Parameter	Basis for Limit	Seasonal Average
Total Phosphorus	TMDL	45.0 lbs/day
$CBOD_5$	TMDL	0.45 lbs/day
Total Ammonia	TMDL	March – May: 11.8 lbs/day June – September: 3.0 lbs/day October: 11.8 lbs/day

LLSWD NPDES Permit Reissuance

- Updated permit application submitted June 2021
- Reasonable potential analysis (RPA) used:
  - DMR data November 2016 – October 2021
  - Toxics data requested for PCBs, PBDEs, and Dioxin
    - Provided for 2018 – 2021
  - Receiving water data collected by the District
  - Environmental Information Management Database (EIM)

Final Limits

Parameter	Basis for Limit	Proposed Average Monthly	Proposed Maximum Daily
Cyanide	WQBEL	55.7 µg/L	81.3 µg/L
PCBs	WQBEL	170 pg/L + Narrative Limits	341 pg/L
Cadmium (Total)	TMDL	0.89 µg/L	1.75 µg/L
Lead (Total)	TMDL	2.1 µg/L	3.7 µg/L
Zinc (Total)	TMDL	77.9 µg/L	128 µg/L
Temperature	WQBEL	--	20 Degrees C

Bacteria Limits

Parameter	Basis for Limit	Proposed Monthly Geometric Mean Limit	Proposed Weekly Geometric Mean Limit
Fecal Coliform Bacteria (Interim)	WQBEL	100CFU/100mL	150CFU/100mL
E.coli (Final)	WQBEL	100CFU/100mL	150CFU/100mL

Dissolved Oxygen (DO) Limits

Parameter	Basis for Limit	Proposed Average Monthly Limit	Proposed Minimum Daily Limit
DO (Interim)	Performance	6.1 mg/L	4.4 mg/L
DO (Final)	WQBEL	6.5 mg/L	4.9 mg/L

Compliance Schedule

- ✓ Temperature
- ✓ Dissolved Oxygen
- ✓ Cadmium, Zinc and Lead

Toxics Reduction Strategy

Develop and Implement BMPs

- Identified actions from Spokane River Regional Toxic Task Force (SRRTTF) 2016 Comp Plan and other resources
  - Source identification
  - Removal actions
  - Continue public outreach and education

SRRTTF Comp Plan Link: http://srrttf.org/wp-content/uploads/2016/04/2016_Comp_Plan_Final_Approved.pdf

Community Based Toxics Reduction

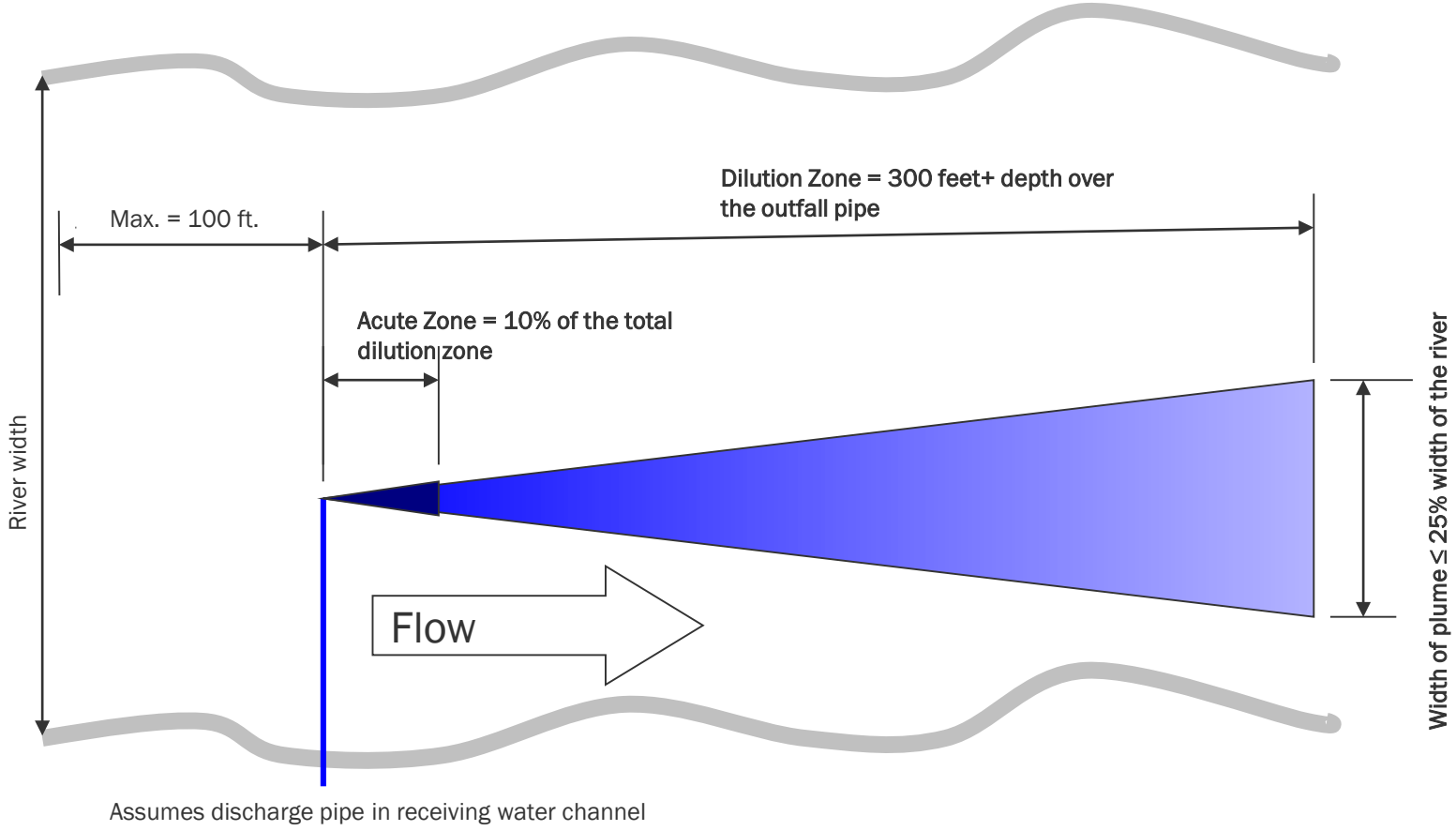
- Continue work with SRRTTF
  - PCBs

SRRTTF Website Link: https://srrttf.org/

Mixing Zone WAC 173-201A-400

Evaluation parameters:

- 300 feet downstream + depth over the outfall
- 100 feet upstream
- < 25% of river flow
- ≤ 25% of river width
- Overlapping mixing zones defined in WAC 173-201A-400(9)



Plan View – not to scale

Mixing Zone Evaluation / Dye Study Required

- Flows in the river have changed
  - FERC relicensing in June 2009
- Use dye tracer to verify mixing zone modeling results
- Demonstrate compliance with WAC 173-201A-400
  - Size of acute and chronic zone

Additional Studies Required

- DO
- pH
- Alkalinity
- Temp

What is important to remember

The proposed permit:

- Includes limits that protect water quality
- Requires BMP actions to eliminate toxic pollutants before they get to the treatment plant
- Requires additional studies to better characterize the receiving water
  - Verify that the mixing zone is meeting WAC 173-201A-400

Thank You!

DEPARTMENT OF ECOLOGY
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Spokane River Watershed Webpage:

https://ecology.wa.gov/Issues-and-local-projects/Environmental-projects/Improving-Spokane-Watershed

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