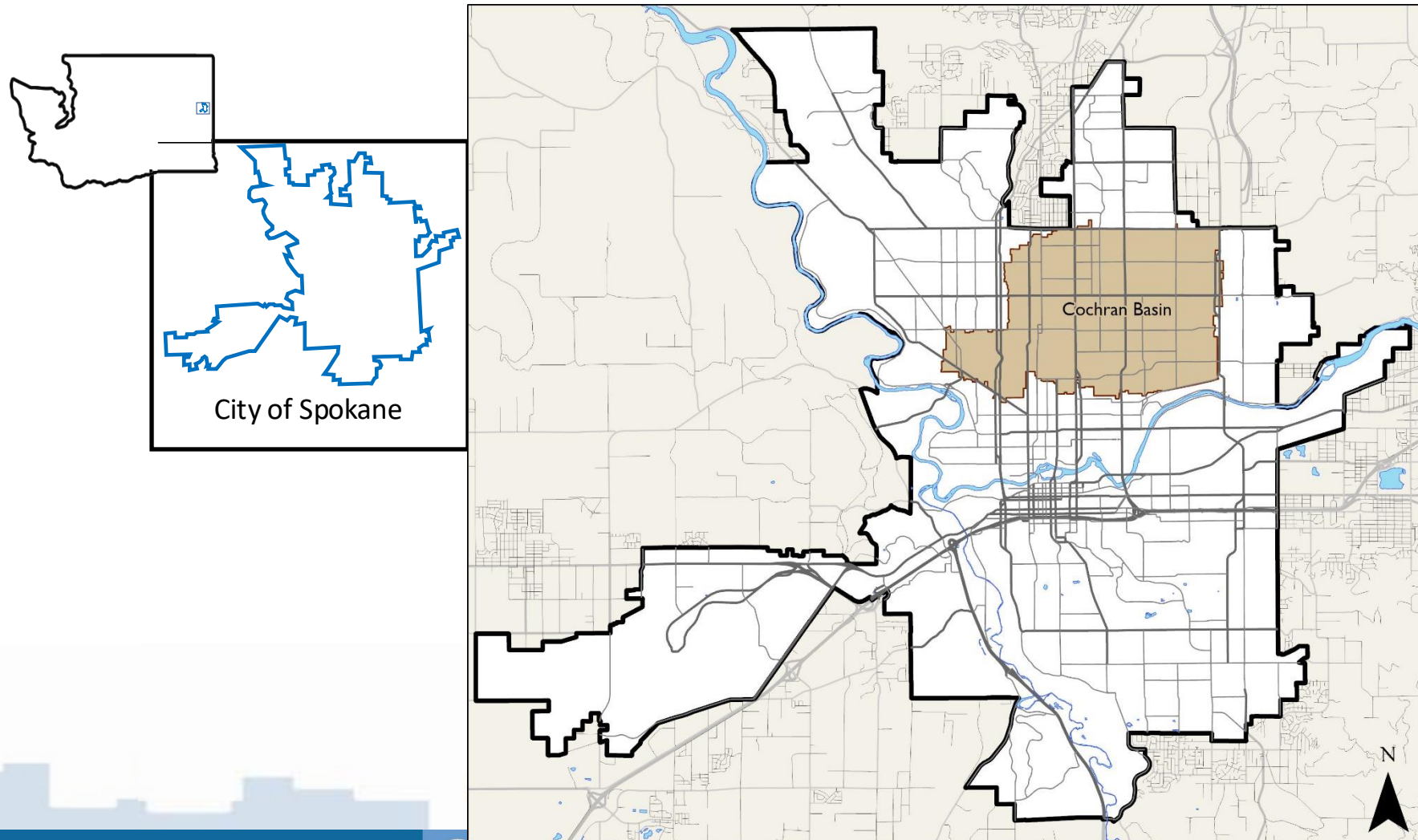


# Cochran Basin Stormwater Improvements

***Spokane River Forum  
April 22, 2025***



# Project Location





# What's The Problem?



- Basin discharges directly to the Spokane River without treatment.
- Largest MS4 outfall in City (approx. 60% of total)
- Spokane River TMDLs include Dissolved Oxygen and Metals.
- PCB TMDL in development.





# Spokane River



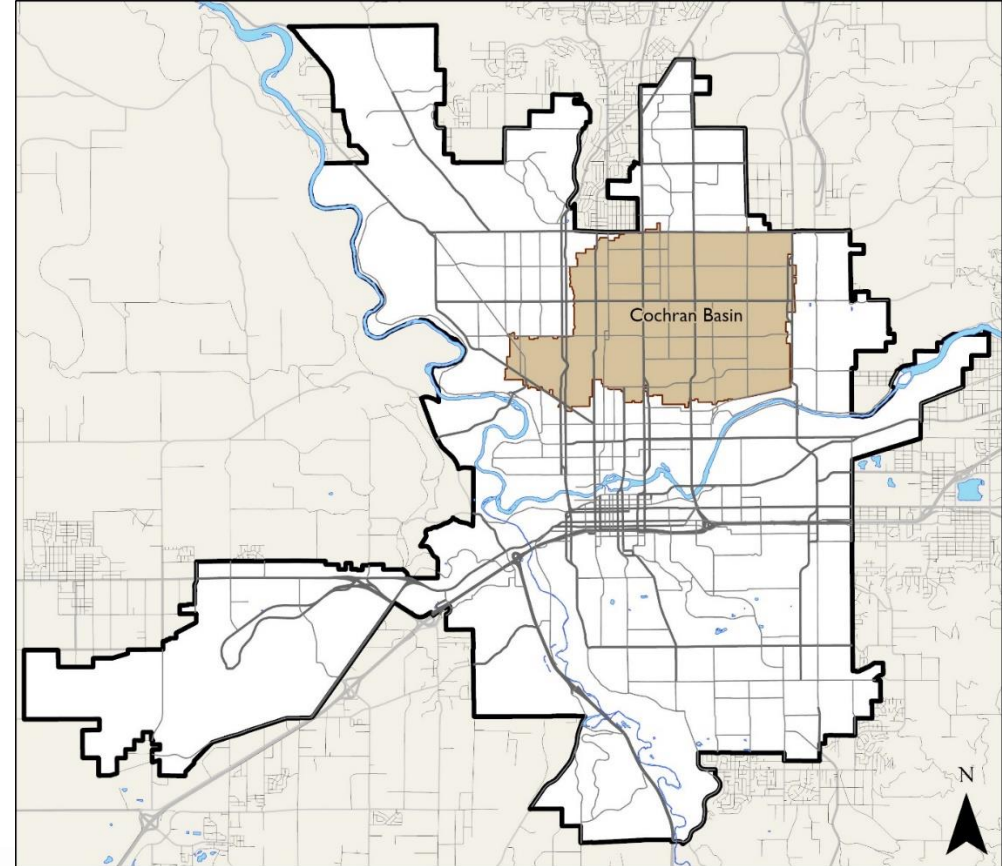
- The Spokane River is our community's greatest asset
  - Cultural, economic and recreational hub of the City
- 111 Miles (Lake CdA to Columbia)





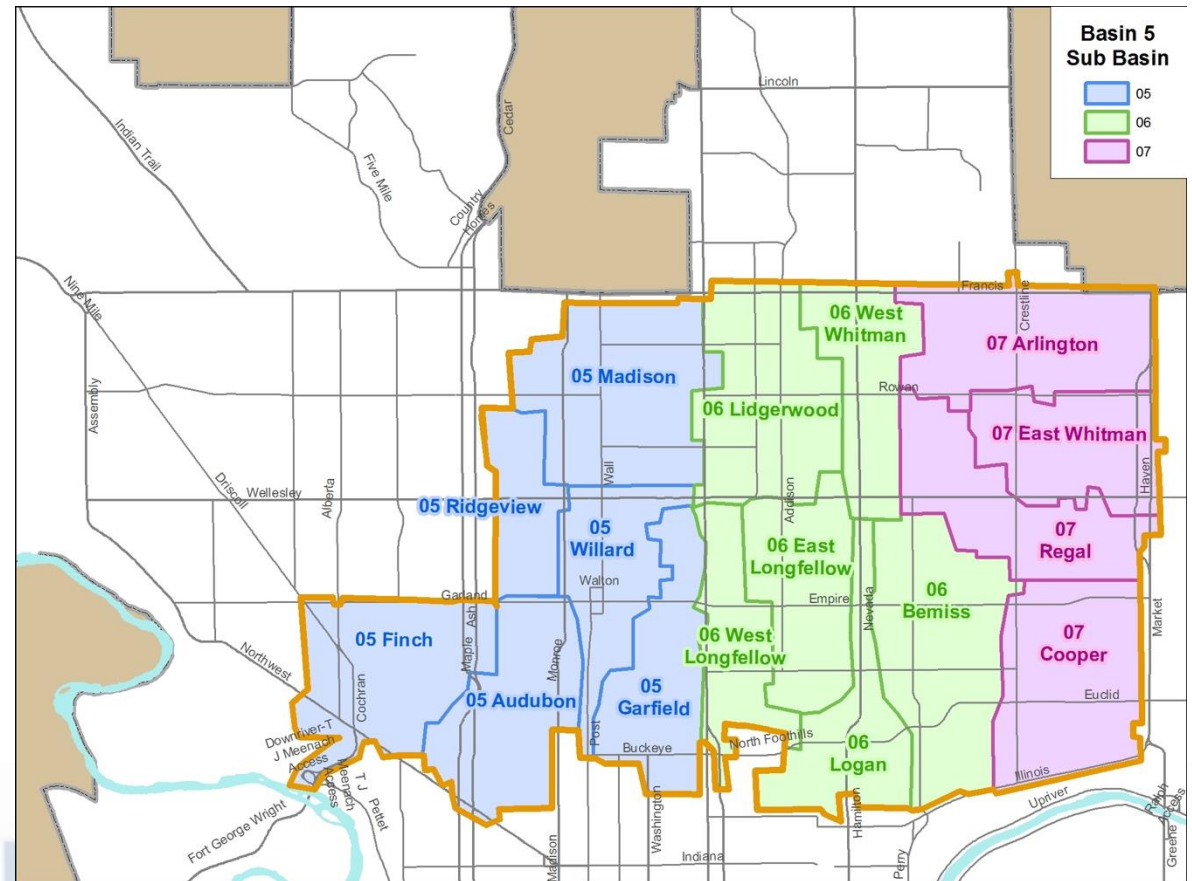
# Basin Data

- Total Basin Area = 5,328 acres
- 496 impervious connected acres
- Project goal is to separate 6-month WQ storm and continue to use outfall for larger events.
  - Type IA 6-Mo 24-hr = 56 cfs
- Modeling: InfoSWMM
- Not feasible to separate more than 6-month storm.



# Where We Started

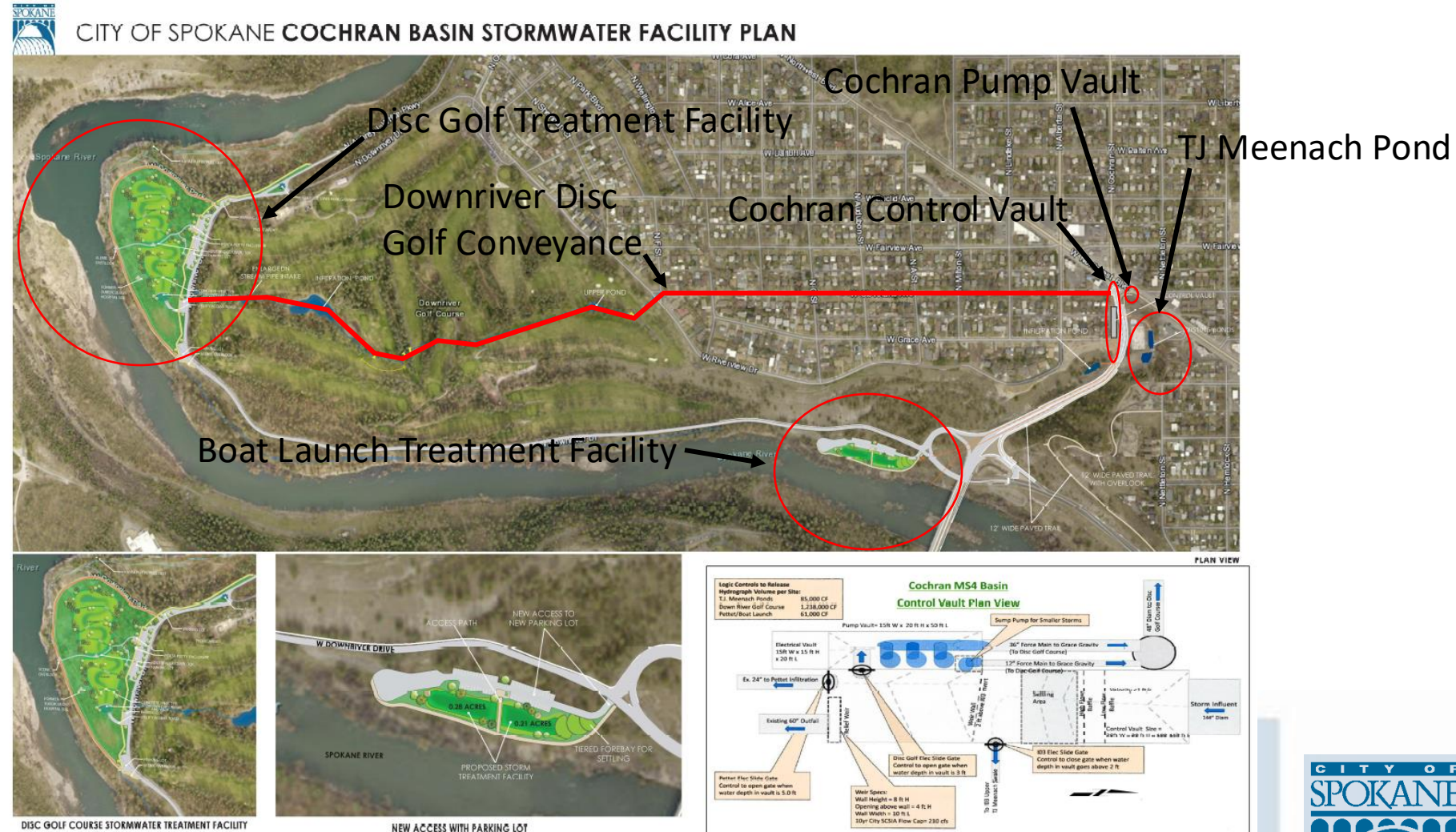
- Larger basin was broken into 16 sub-basins
- Plan was ultimately discarded
  - Difficulty in finding treatment areas
  - Significant cost





# The Solution

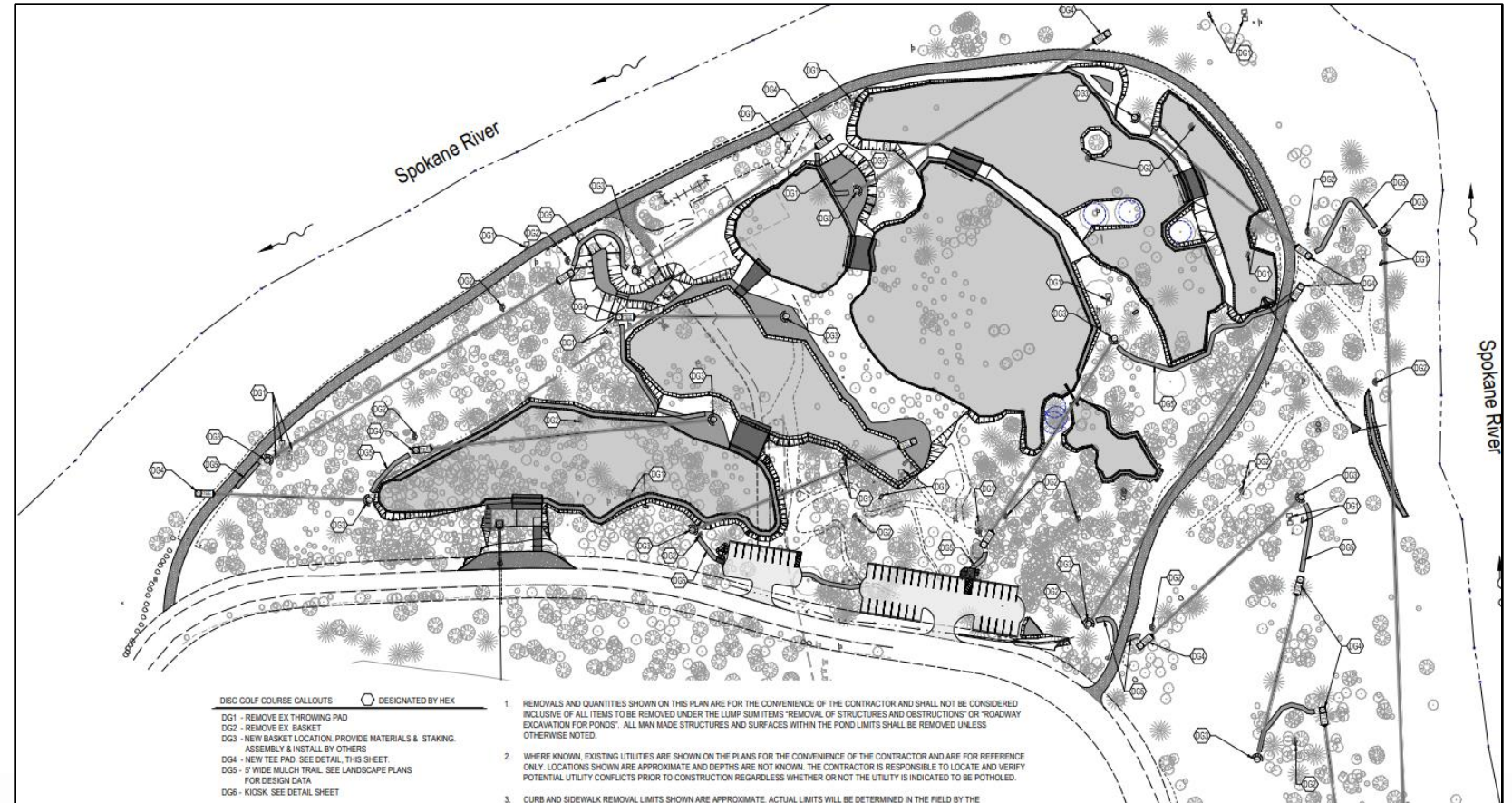
- Significant City-owned land near the outfall with favorable infiltration
- Basin flows split to three separate treatment facilities





# Disc Golf Treatment Facility

- 4.29 acres of pond bottom area
- Construction Cost = \$3.7M (combined contract with boat launch)



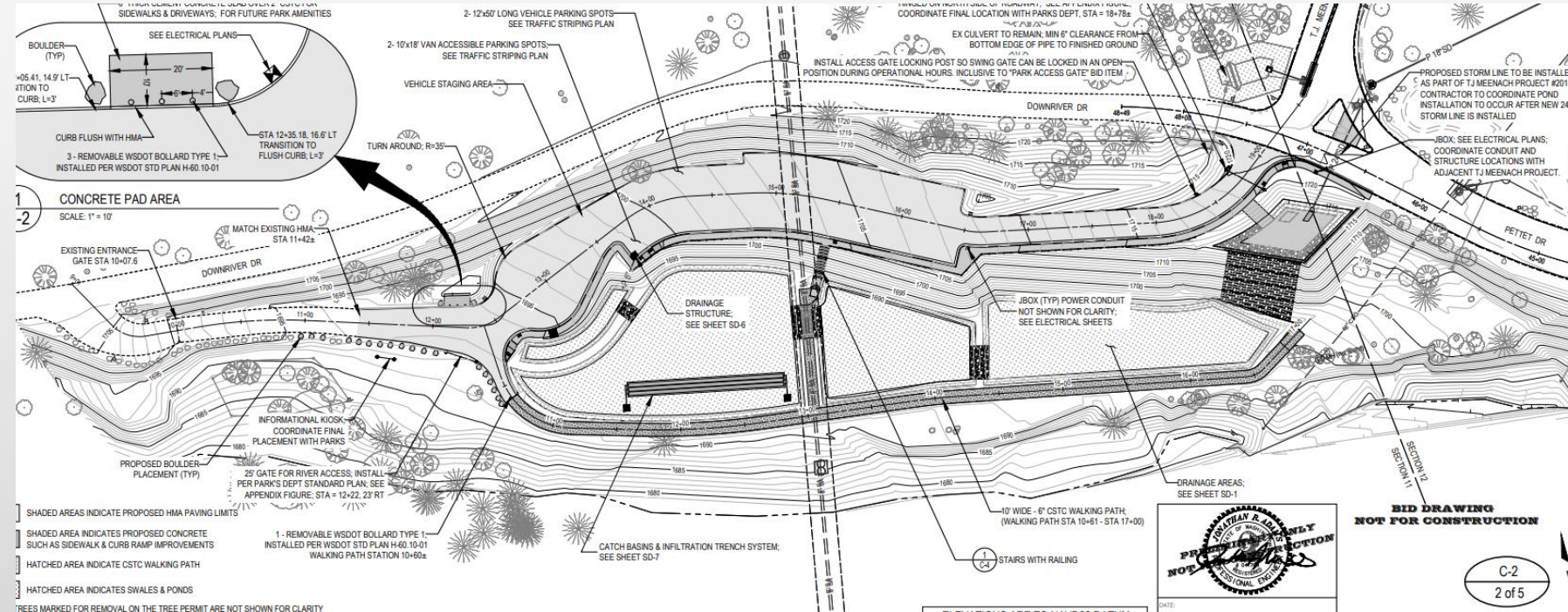


# Disc Golf Treatment Facility





- 0.40 acres of pond bottom area
- Construction Cost = \$3.7M (combined contract with boat launch)





# Boat Launch Treatment Facility





- 9,000 SF of pond bottom area
- Construction Cost = \$900K (partly constructed with I-03 Facility)





# TJ MeenachTreatment Facility


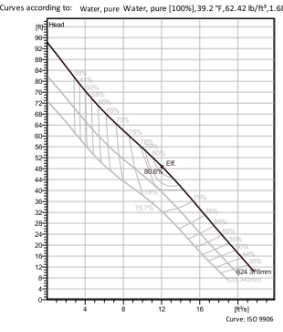




# Flow Control and Pump Vault

**NP 3301 LT 3~624**  
Patented self cleaning semi-open channel impeller, ideal for pumping in waste water applications. Modular based design with high adaptation grade.

**Technical specification**

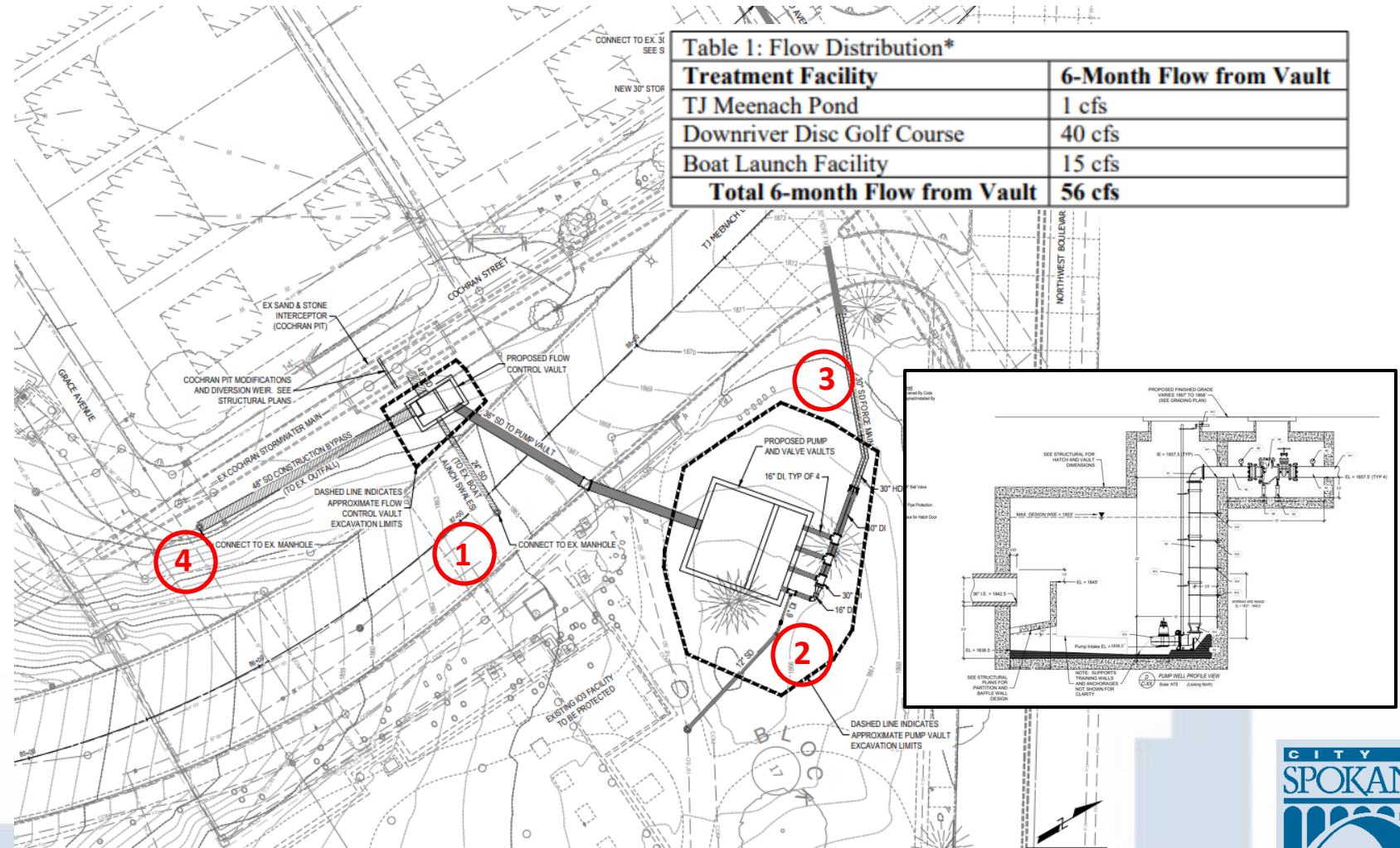
Curves according to: Water, pure Water, pure [100%] 39.2 °F, 62.42 lb/ft³, 1.6891E-5 ft/s²

**Configuration**

Motor number	Installation type
N3301.830.35-45-6IE-W IE3	P - Semi permanent, Wet
85hp	
Impeller diameter 376 mm	Discharge diameter 12 inch

**Pump information**

Impeller diameter	Materials
376 mm	Impeller Hard-Iron™
Discharge diameter 12 inch	
Inlet diameter 350 mm	
Maximum operating speed 1185 rpm	
Number of blades 2	





# Control Facility

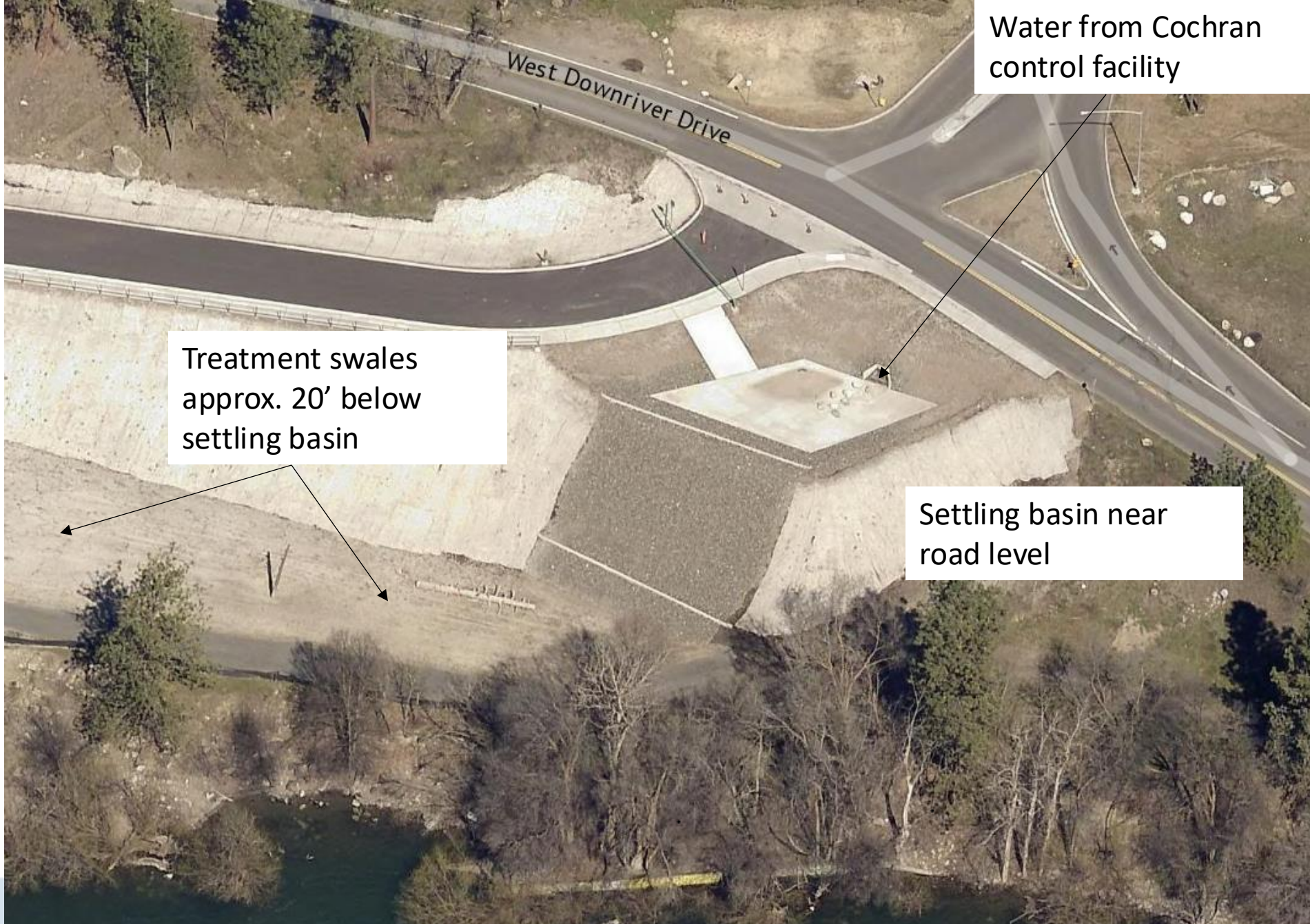


# Current Status

- Control Facility – Final pump connectivity and programming is underway
- Disc Golf is complete – Waiting for pumps.
- Boat Launch – Undergoing revision of settling basin/outfall







Water from Cochran  
control facility

Treatment swales  
approx. 20' below  
settling basin

Settling basin near  
road level





Water from Cochran  
control facility



Settling basin

Overflow weir







Overflow weir

Settling basin

Treatment  
swale approx.  
20' below









Settling basin

Treatment  
swale approx.  
20' below







Treatment swales





Breach

Settling basin



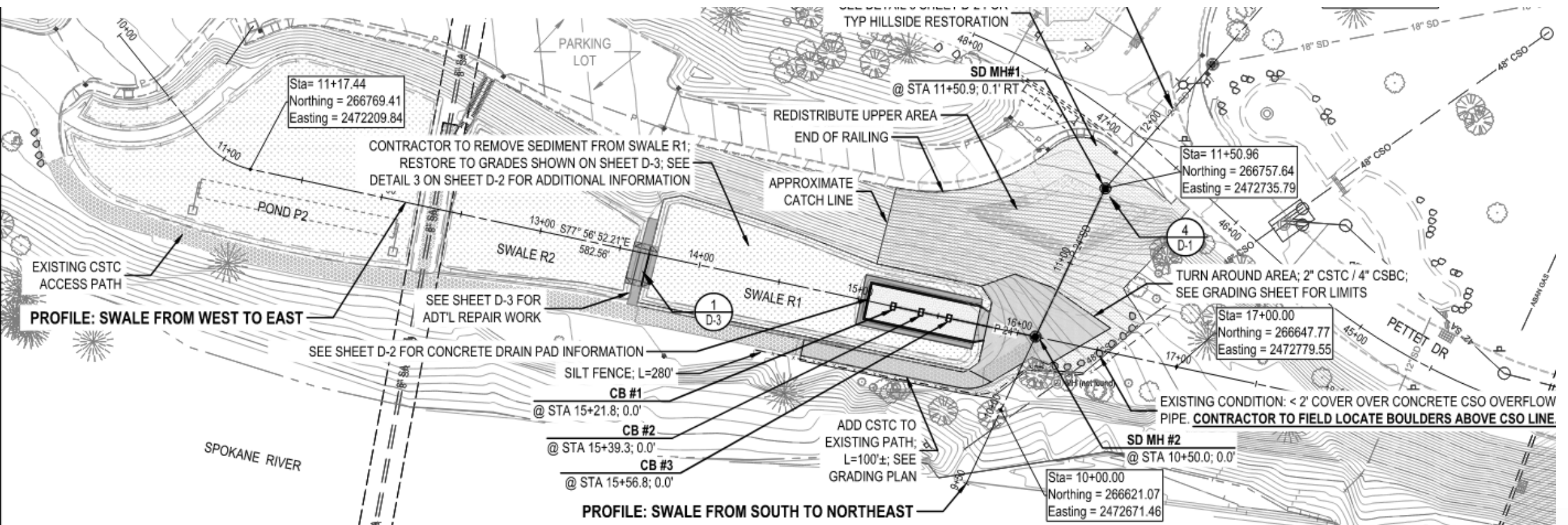


Settling basin

Treatment  
swale approx.  
20' below



# Revised settling basin plan







Settling basin

Treatment swale



# Thank You

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