

# **Edmonds Stream Team Preliminary Report**



By: Rondi Nordal and Joe Scordino



# Students working to update signs at Edmonds Pier



# Daylighting Willow Creek

Exciting progress

Allows juvenile salmon access to Marsh

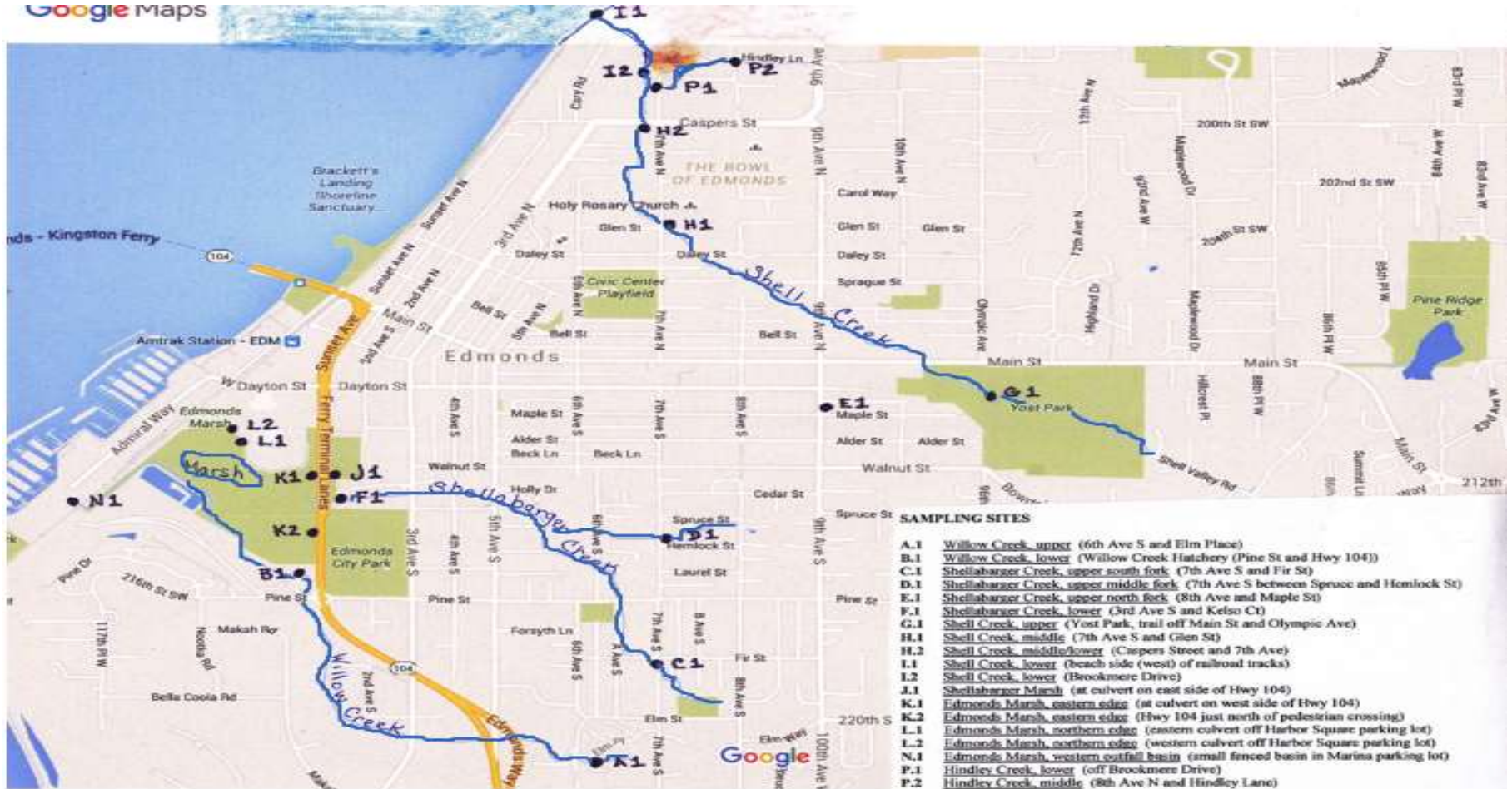
Adult spawning access



*Photo by Larry Vogel My Edmonds News*

# Map of Monitoring Sites

Google Maps



## SAMPLING SITES

- A.1 Willow Creek upper (6th Ave S and Elm Place)
- B.1 Willow Creek lower (Willow Creek Hatchery (Pine St and Hwy 104))
- C.1 Shellabarger Creek upper south fork (7th Ave S and Fir St)
- D.1 Shellabarger Creek upper middle fork (7th Ave S between Spruce and Hemlock St)
- E.1 Shellabarger Creek upper north fork (8th Ave and Maple St)
- F.1 Shellabarger Creek lower (3rd Ave S and Kelo Ct)
- G.1 Shell Creek upper (Yost Park, trail off Main St and Olympic Ave)
- H.1 Shell Creek middle (7th Ave S and Glen St)
- H.2 Shell Creek middle/lower (Caspers Street and 7th Ave)
- L.1 Shell Creek lower (beach side (west) of railroad tracks)
- L.2 Shell Creek lower (Brookmere Drive)
- J.1 Shellabarger Marsh (at culvert on east side of Hwy 104)
- K.1 Edmonds Marsh eastern edge (at culvert on west side of Hwy 104)
- K.2 Edmonds Marsh eastern edge (Hwy 104 just north of pedestrian crossing)
- L.1 Edmonds Marsh northern edge (eastern culvert off Harbor Square parking lot)
- L.2 Edmonds Marsh northern edge (western culvert off Harbor Square parking lot)
- N.1 Edmonds Marsh western cutoff/basin (small fenced basin in Marina parking lot)
- P.1 Hindley Creek lower (off Brookmere Drive)
- P.2 Hindley Creek middle (8th Ave N and Hindley Lane)



Professional Plus

Sample  
43.7 °F  
9.3 mVHg  
86 °DO %L  
9.7 °DO %  
200.9 SPC #  
142.7 °C/E  
0.1707 DS ‡  
0.105 SAL ppt

System Probe Calibration File  
[System] [Probe] [Cal] [File]

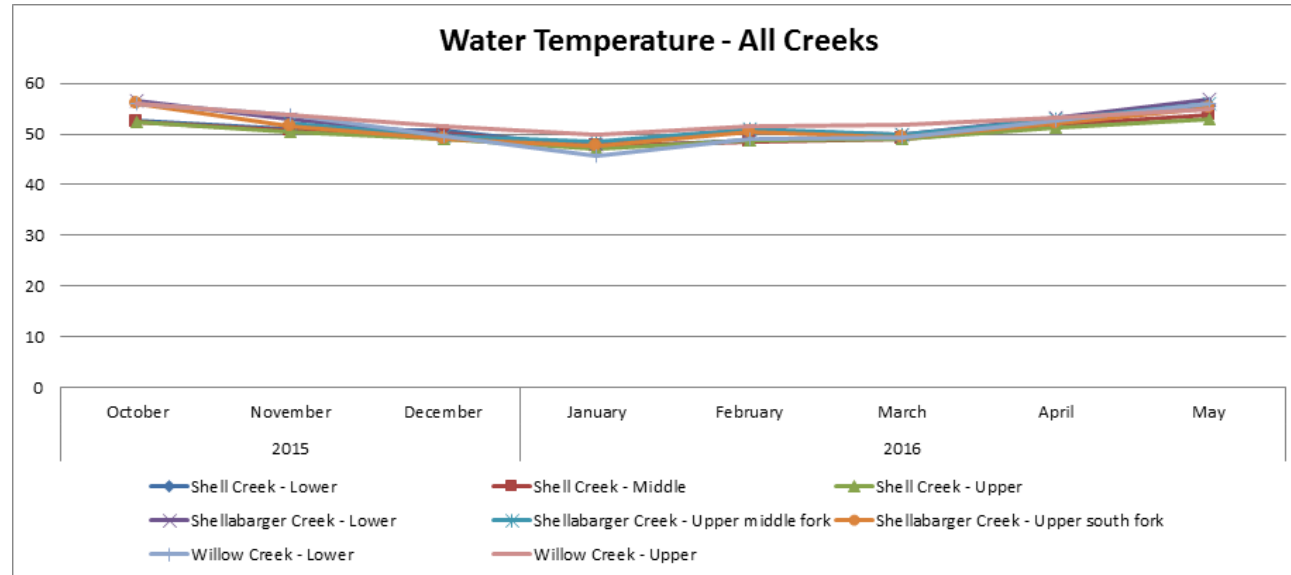
# Overall Water Temperature

Water Temperature Average -  
all months = 51.6 F

Highest average month -  
May 2016 = 55.1 F

Lowest average month -  
January 2016 = 47.7 F

Wash. Water Quality Standard -  
below 60.8 F





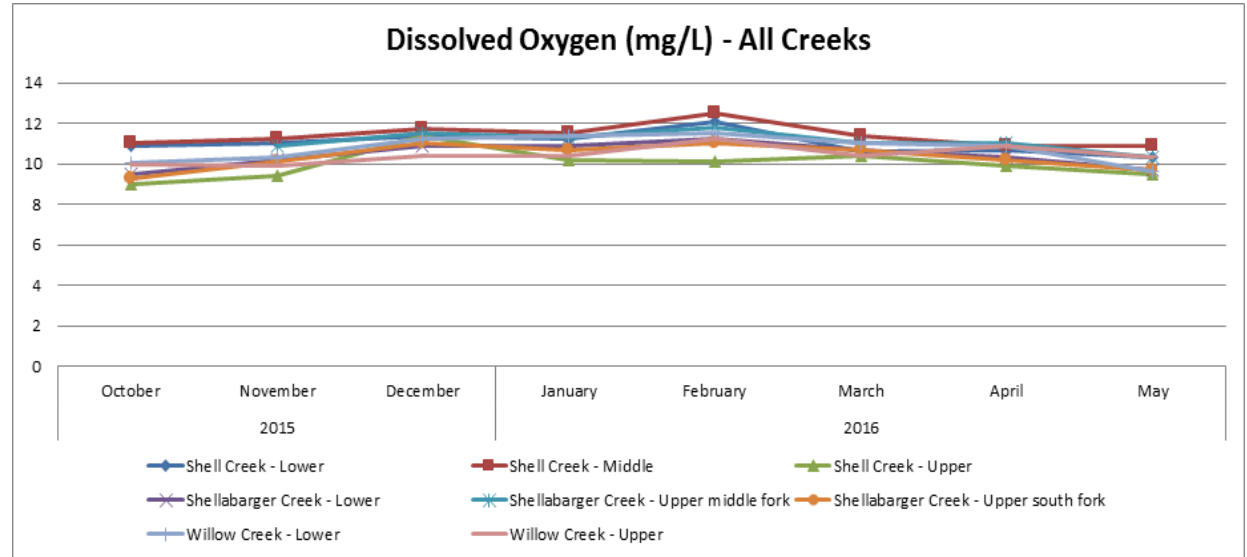
# Overall Dissolved Oxygen

Dissolved Oxygen Average, all months = 10.5 mg/L

Highest average month - Feb 2016 = 11.4 mg/L

Lowest average month – October 2015 = 9.6 mg/L

Wash. Water Quality Standard – above 8.0 mg/L



# Shell Creek: Dissolved Oxygen



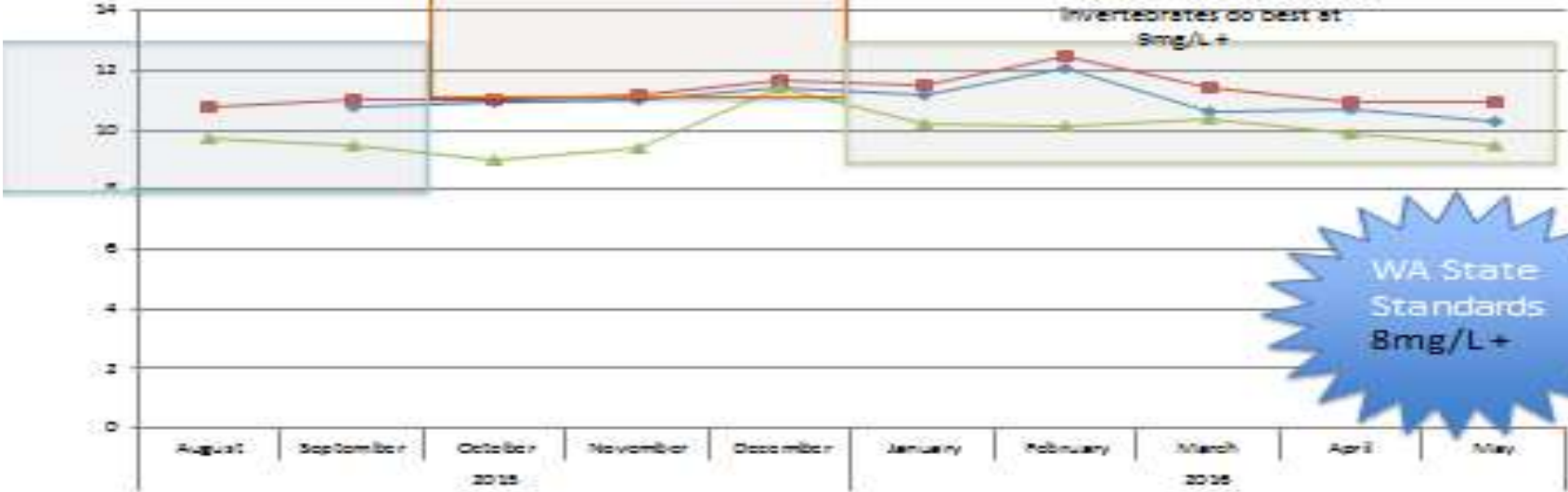
Adults do best above:  
8mg/L +



Eggs do best at:  
11mg/L +



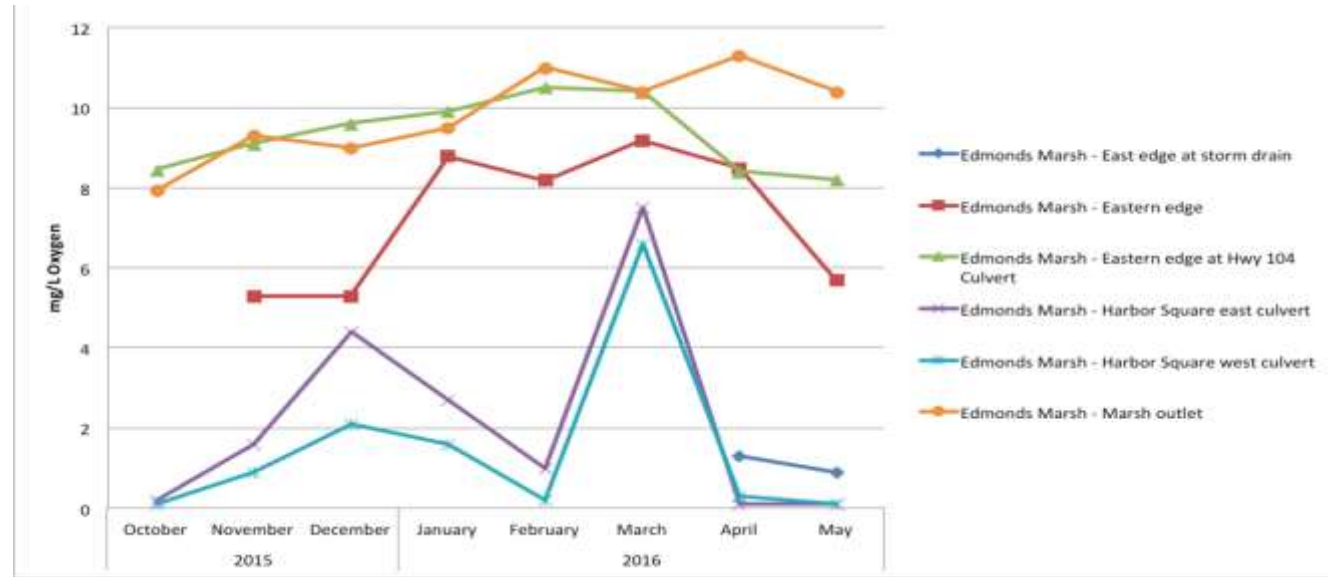
Pollution intolerant macro-  
invertebrates do best at:  
8mg/L +



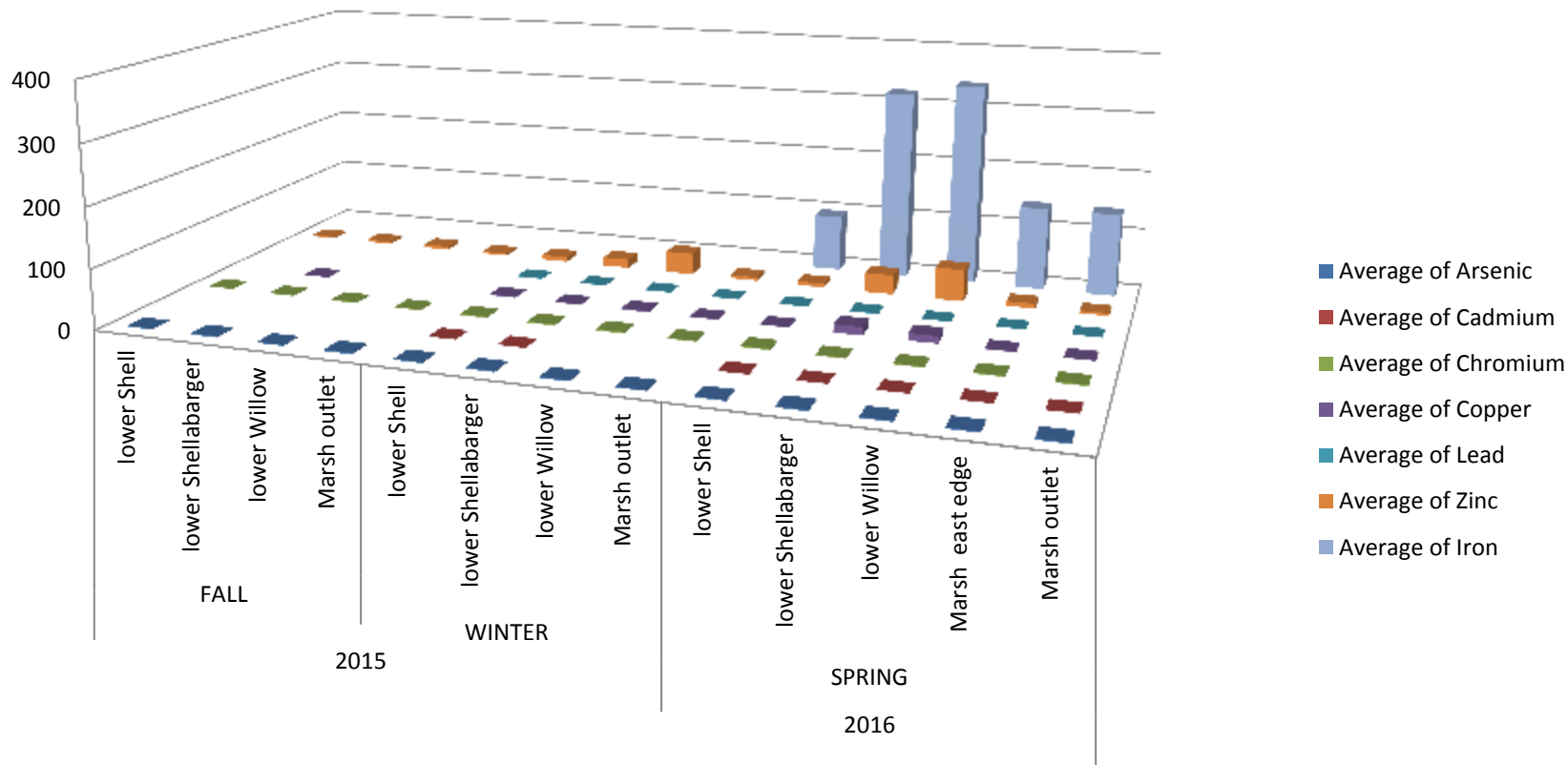
WA State  
Standards  
8mg/L+

# Edmonds Marsh: Dissolved Oxygen

- Main flow through Marsh (avg. 9.4 mg/L) exceeds State Standards
- Edges of Marsh especially along Harbor Square (average 1.8 mg/L) are way below State Standards; too low for salmon

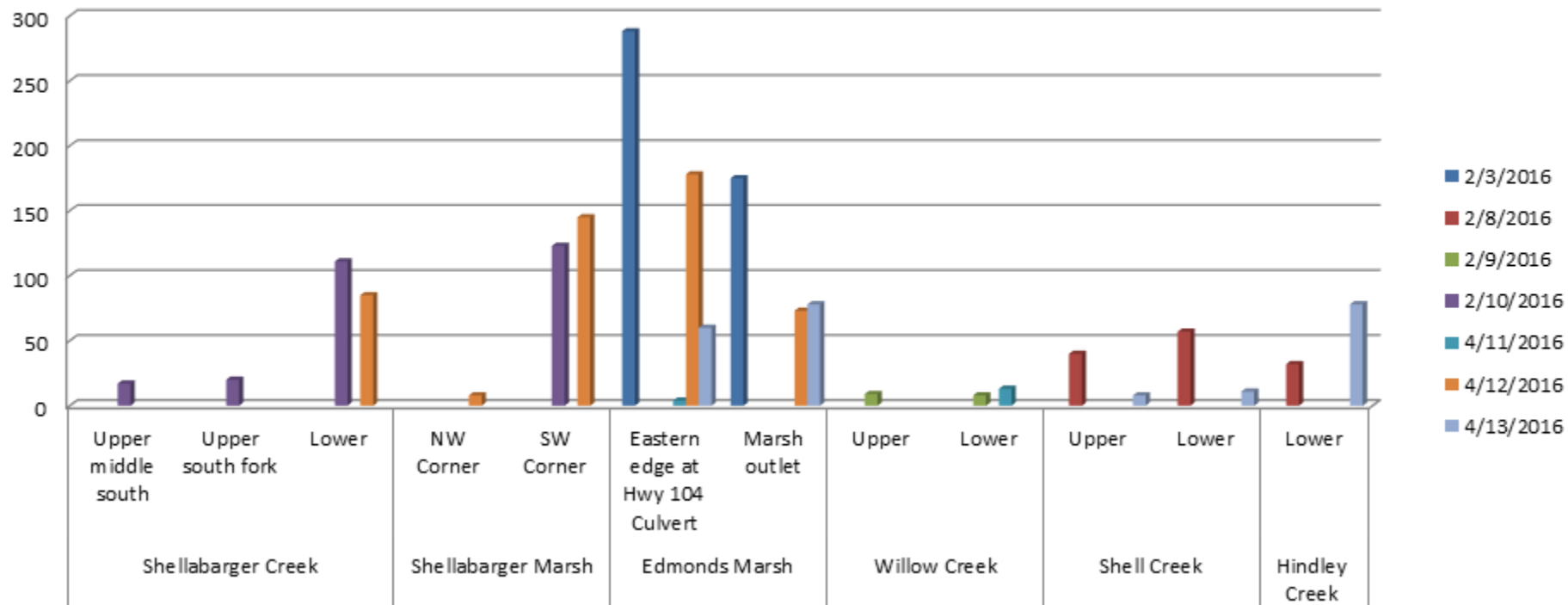


# DISSOLVED METALS (ug/L)



# Fecal Coliform

Fecal Coliform (colonies/100 mL)



# Discussion

No detrimental water quality issues detected so far except for the edges of the Marsh. But, we need to collect summer data, consider more intense fecal coliform collections, and collect further heavy metals and petroleum compounds data.

Continued monitoring will provide annual trends and needed baseline data. Project is pursuing collection of turbidity, phosphorous, and other data to make project more compatible with State level monitoring program.

Project has demonstrated that a Citizen Science project utilizing students can be successful in collecting valid, scientific data. Students have benefited from participation and will carry this experience into college and future careers.

# Questions?

