# Oyster Shell Retrofits in Catch Basins:
## Pilot Study for Non-proprietary Dissolved Metals Treatment

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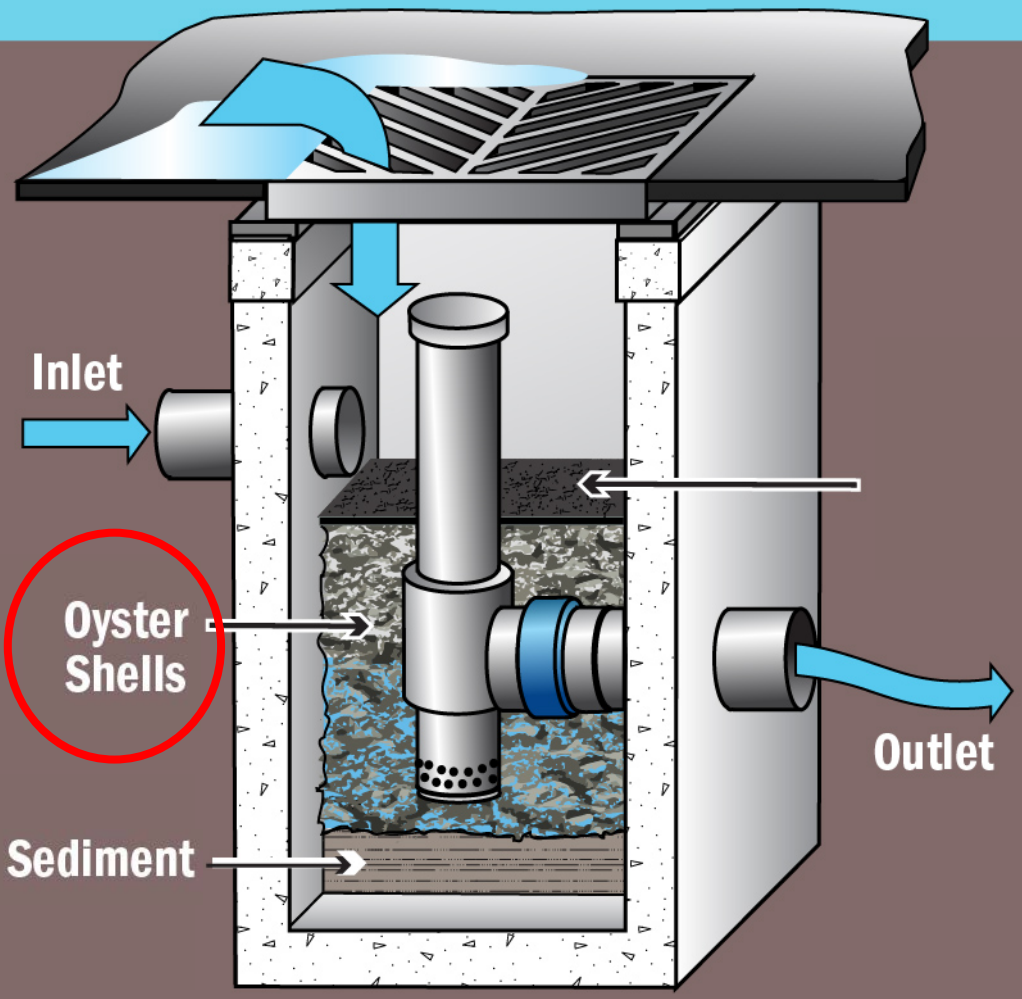
King County

SAM Stormwater Action Monitoring

A project for Clean Water Healthy Habitat

SAM
Stormwater Action Monitoring

# Oyster Shell Retrofit




Example diagram – actual design may vary

# Project Overview

- 4 catch basins monitored
  - 2 pairs of treated & untreated

- Preliminary data from 4 storms
  - July 9, 2019
  - October 16, 2019
  - November 18, 2019
  - December 18, 2019 (not shown today)

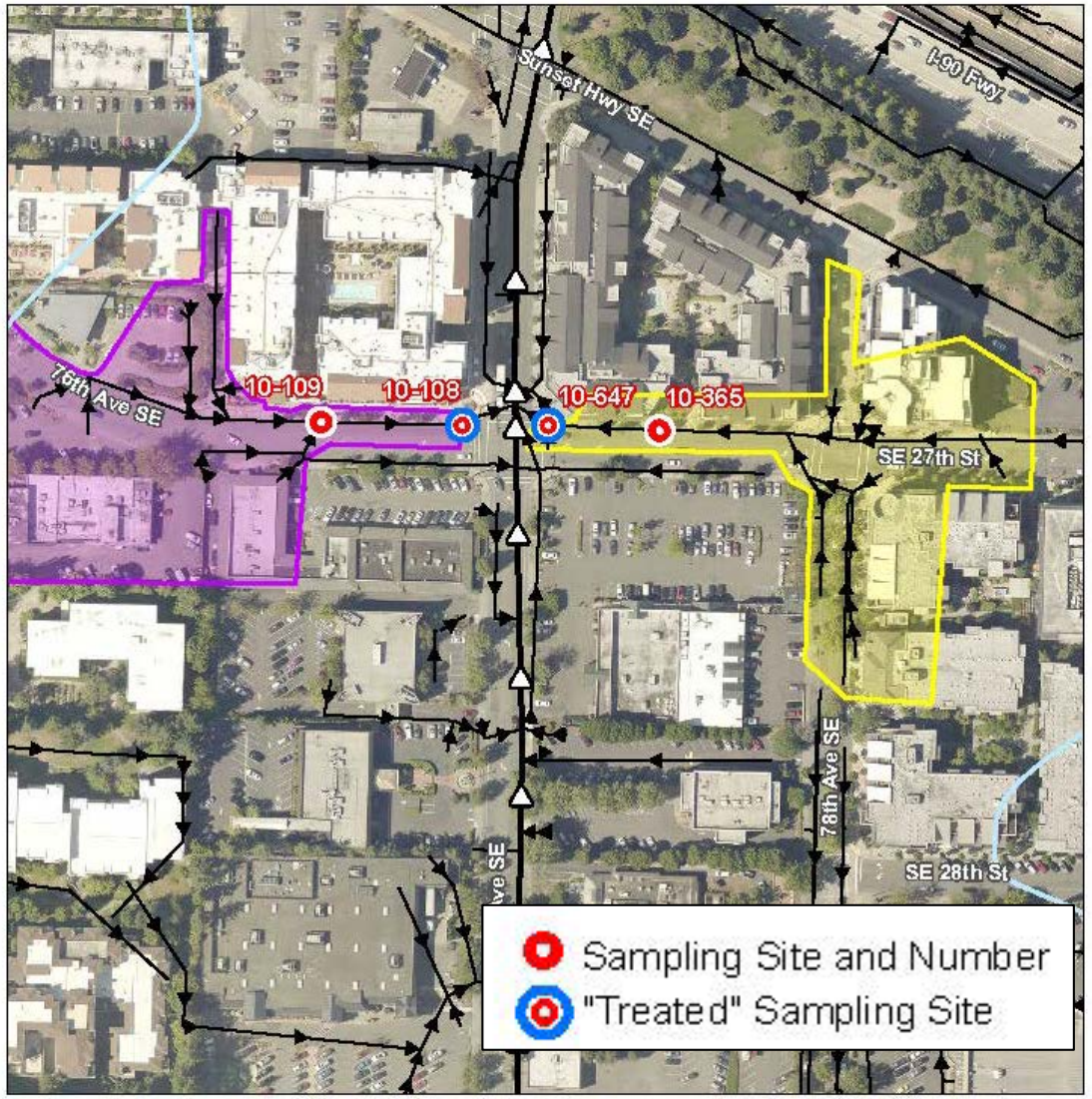
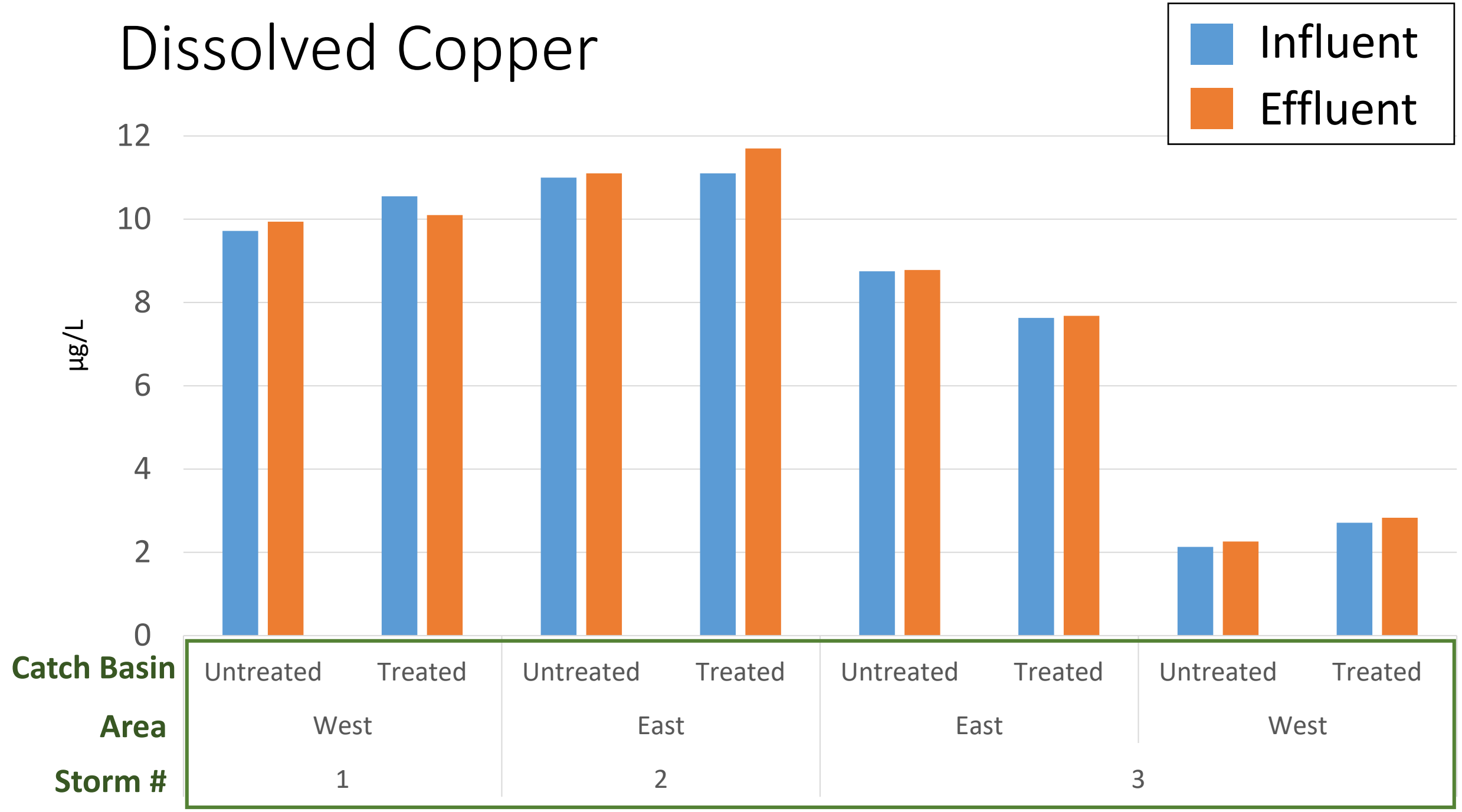
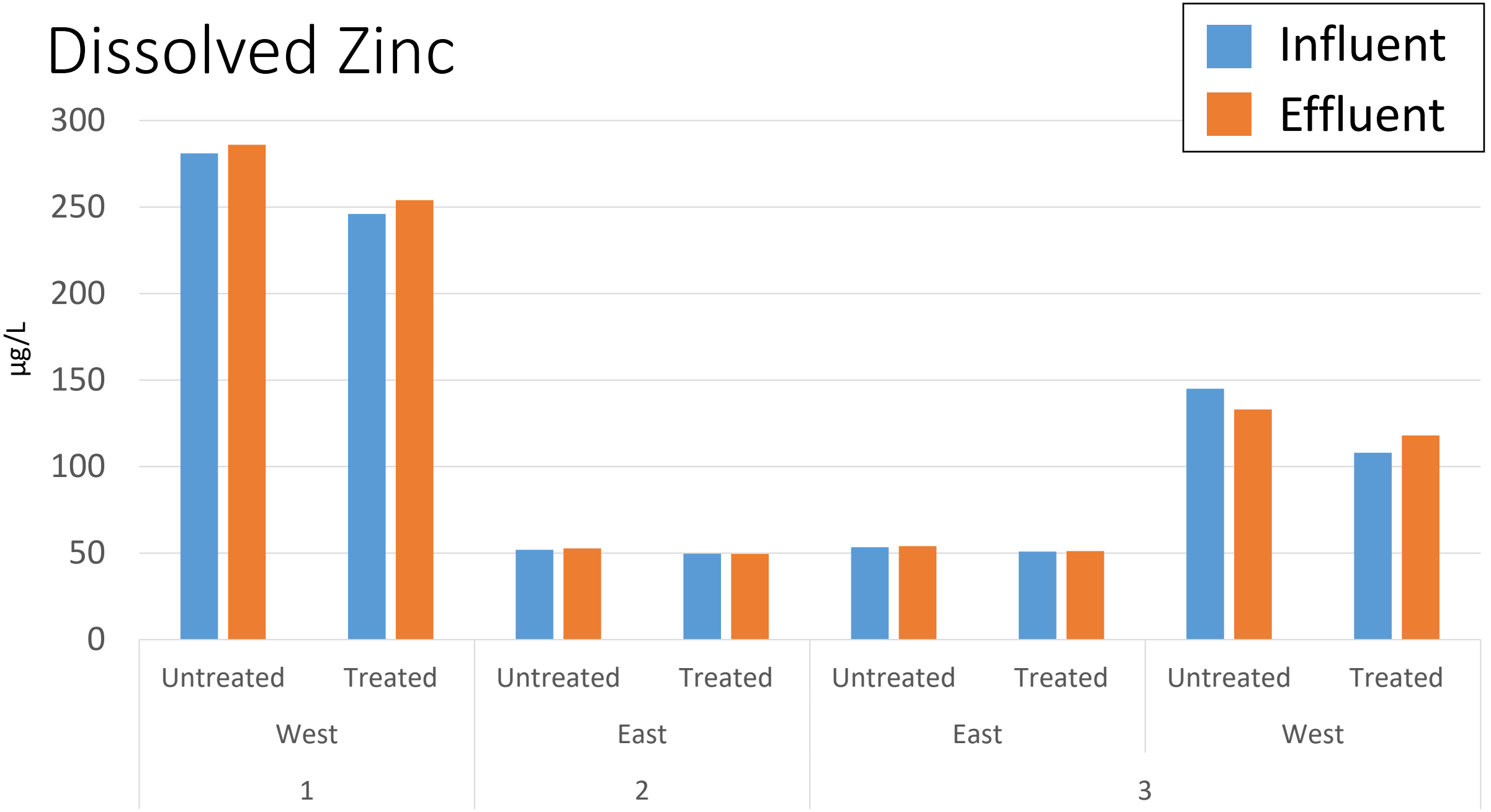



Figure 1
Mercer Island Basin 10 **Town Center Context**

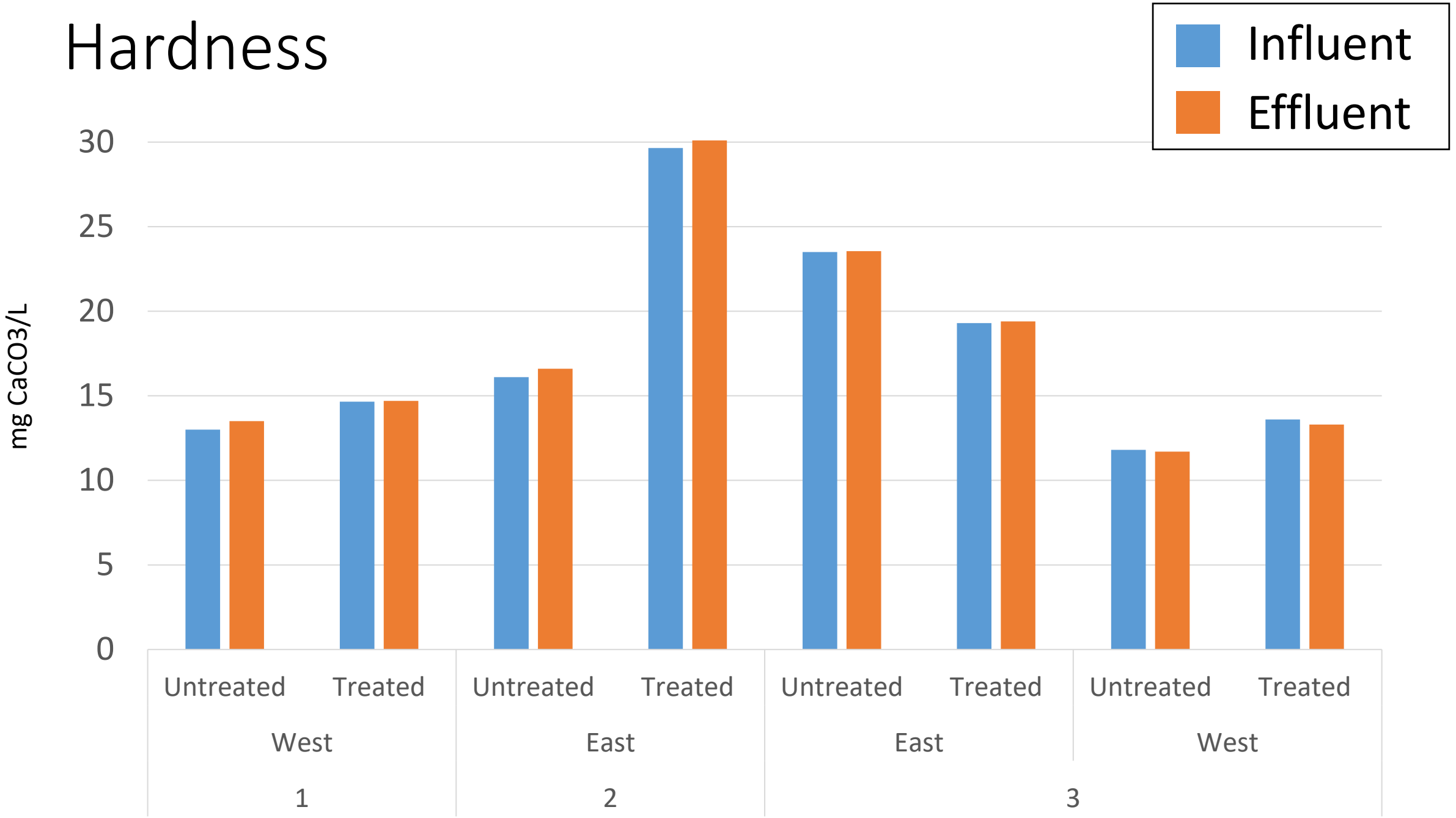
# Dissolved Copper



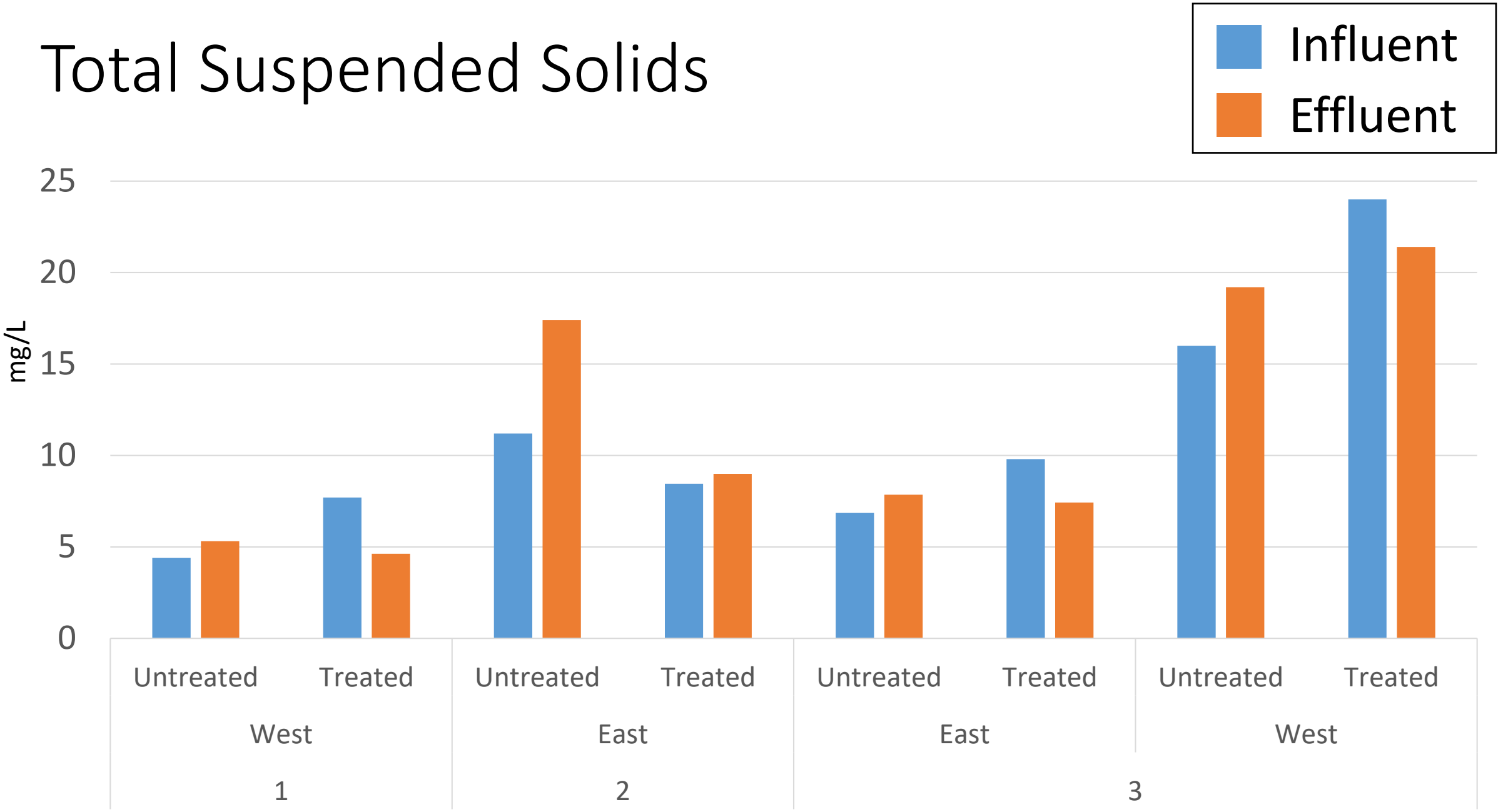
# Dissolved Zinc



# Hardness


Influent
Effluent
mg CaCO3/L
30
25
20
15
10
5
0
Untreated
Treated
Untreated
Treated
Untreated
Treated
Untreated
Treated
West
East
East
West
1
2
3

# Total Suspended Solids



# Why didn’t it work?

# Contact time likely too short


Clogging
event

# Final installation

# Continuing applications

- Small stormwater basins
- Cisterns
- Polishing layer

# Thank you to:

- **Keunyea Song** (Ecology representative)
- **Patrick Yamashita** (City of Mercer Island)
- **Jane Dewell and Scott Silcox** (Port of Seattle)
- **Houston Flores** (Field Lead, KCEL)
- **Katherine Bourbonais** (Lab PM, KCEL)
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- **Debra Bouchard** (King County support)
- **Dean Wilson** (King County technical support)