

Monitoring of Pine, Calvin, Point, and Fischer Creeks in Southern Manitowoc County Summer 2012

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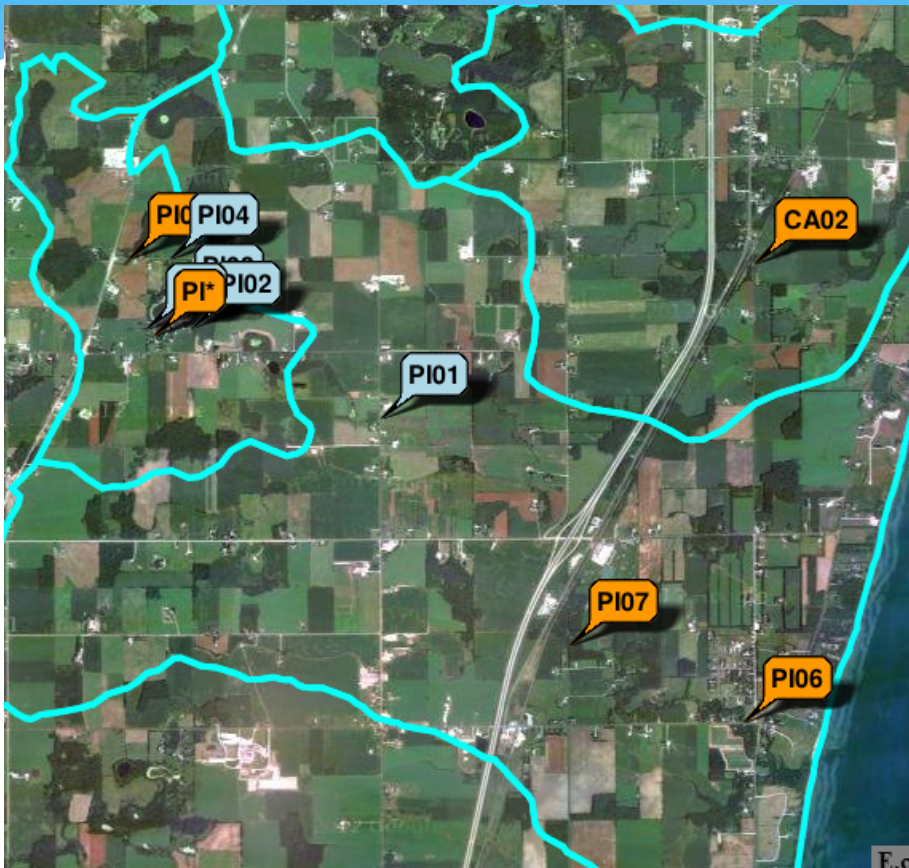
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Friends of Hika Bay
Calvin, Pine, Point, Fischer, Centerville Creeks



Pine Creek



Site Map

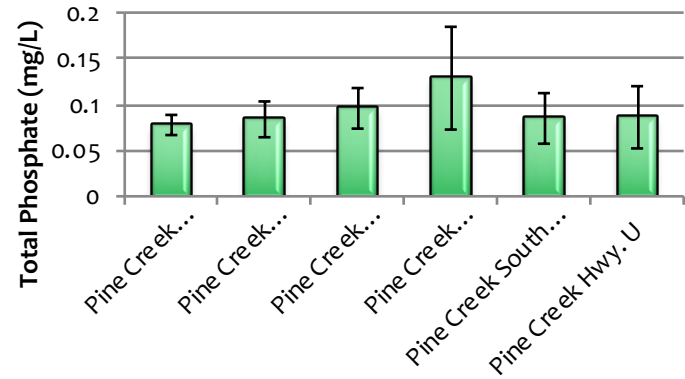
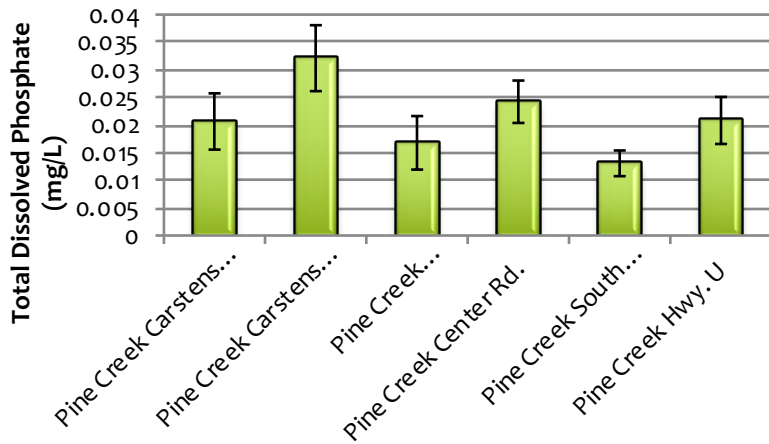
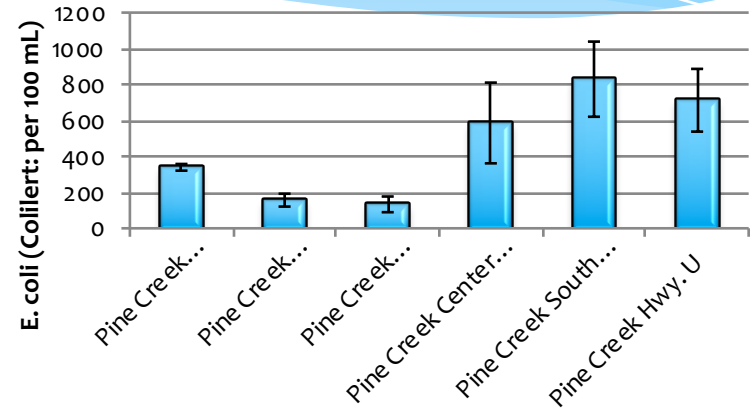
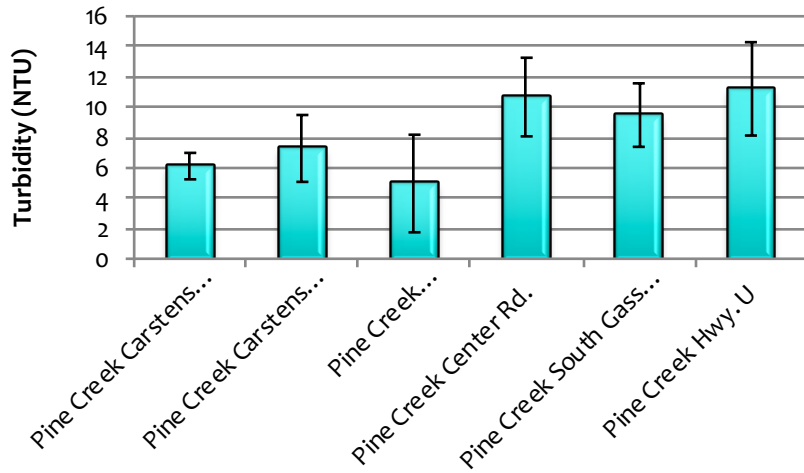


Close up West of I-43

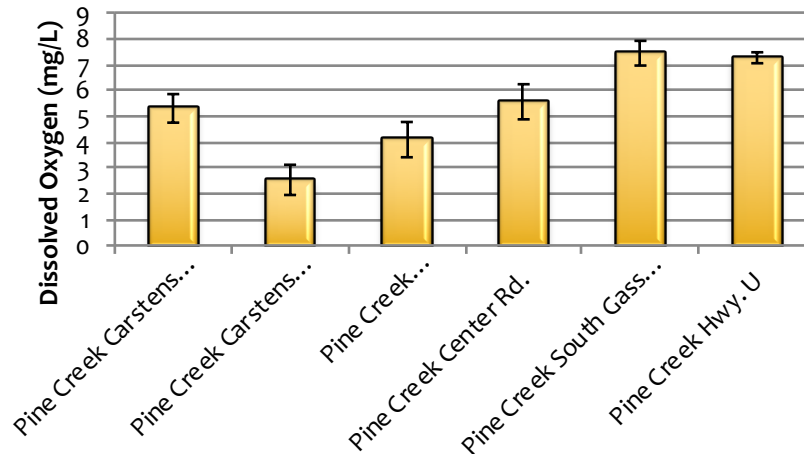
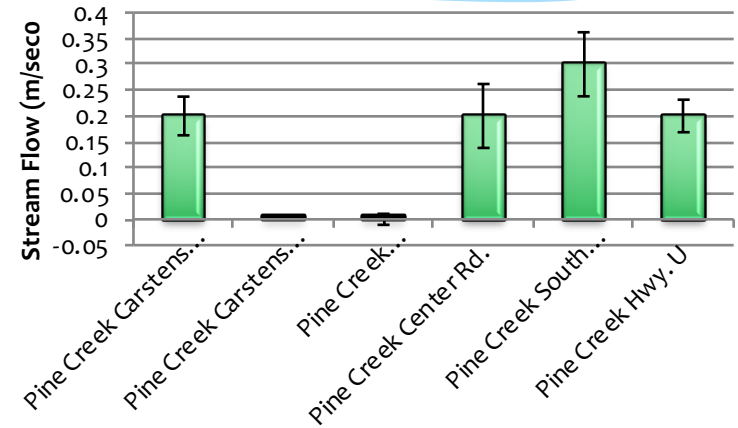
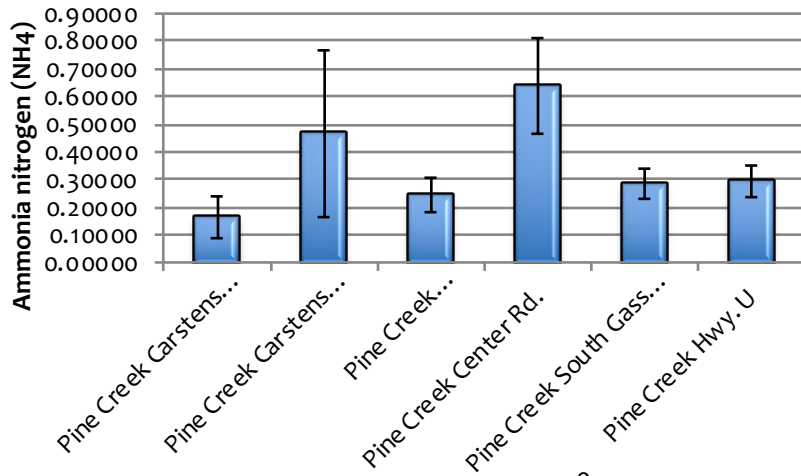
Pine Creek

- * Phosphate levels do not follow the general trends seen in other streams of increasing downstream
- * Phosphate and turbidity levels spike between Sonnenberg Lane and Center Road
- * Ammonia nitrogen (NH_4) level at Center Road greatly increases.
- * Between Sonnenberg Lane and Center Road there is a spike in E. coli

Pine Creek Graphs



Pine Creek Graphs



Calvin Creek

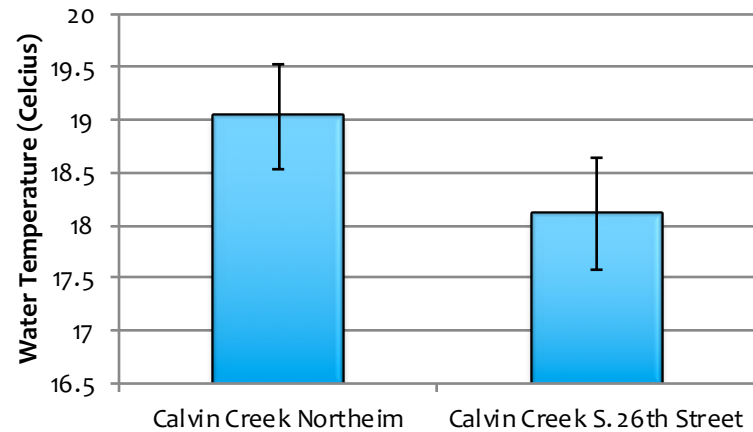
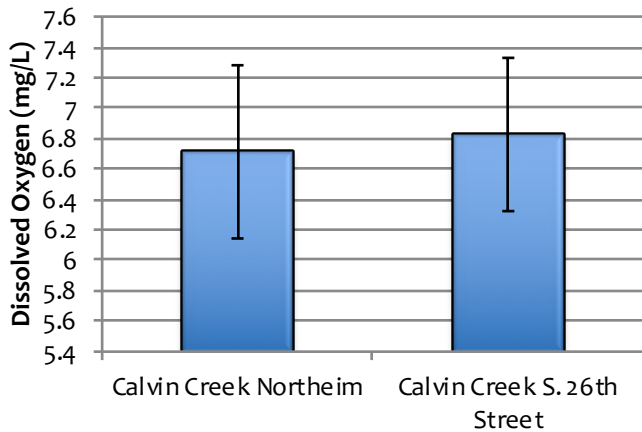
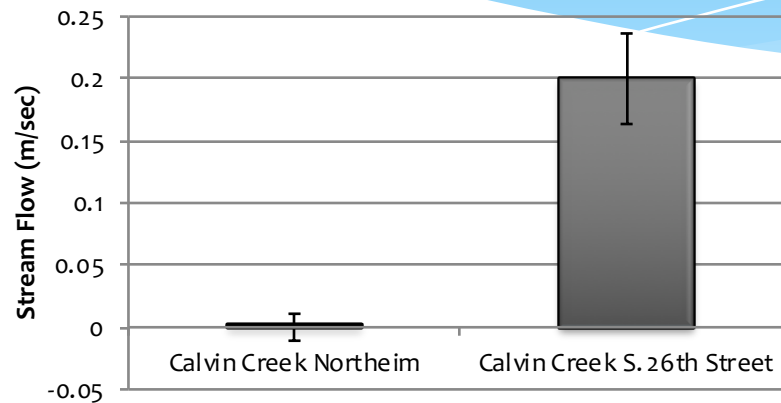


Sampling
points along
Calvin Creek

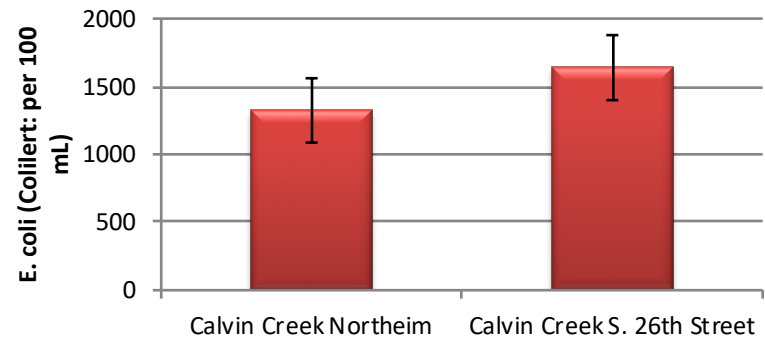
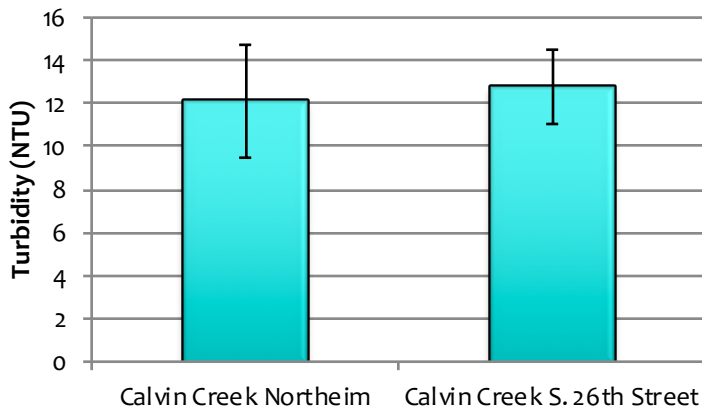
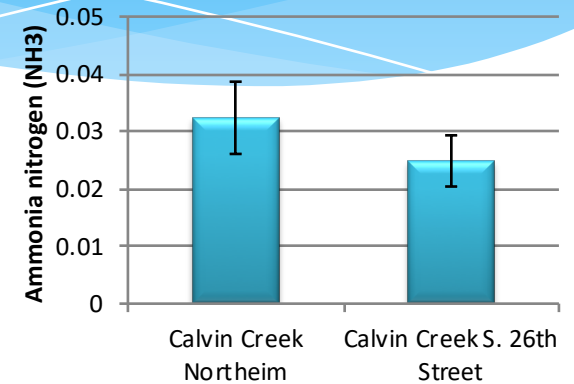
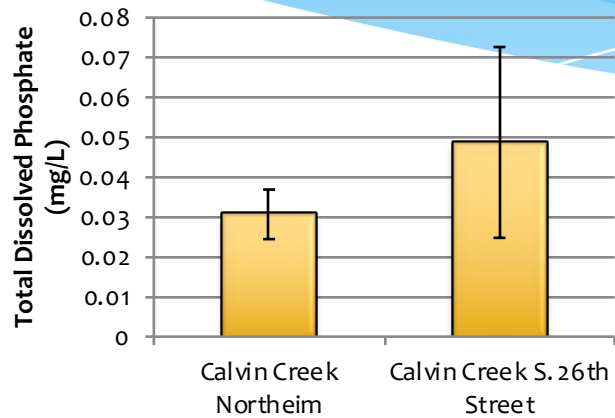
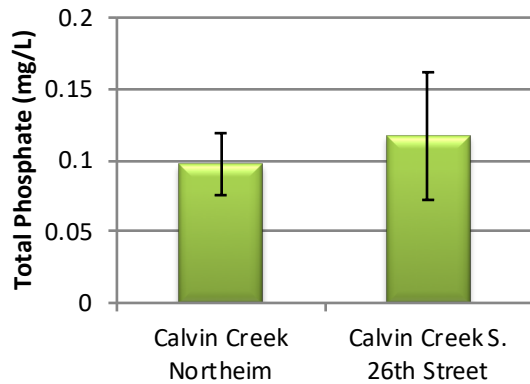
Calvin Creek

- * Turbidity and phosphate levels were above the normal range
- * E. coli average was found to be well over the “closed” value
- * Phosphates , E. coli, and turbidity increased downstream
- * Ammonia nitrogen decreased downstream

Calvin Creek – Physical Parameters



Calvin Creek Graphs



Point Creek

* Point Creek
sampling sites



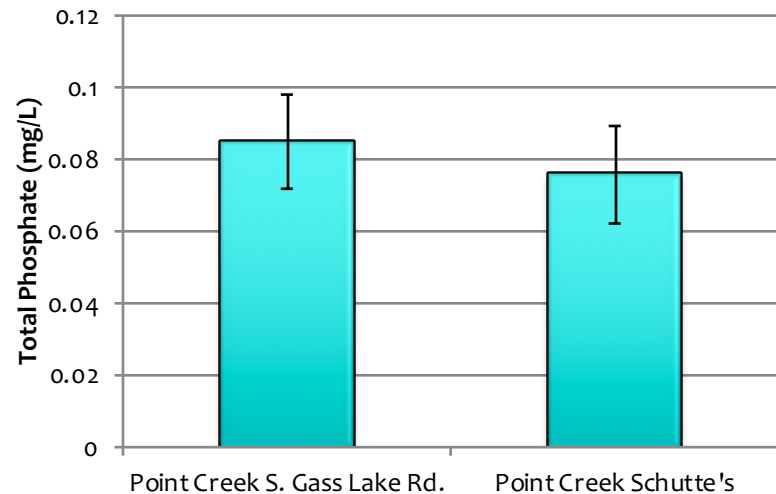
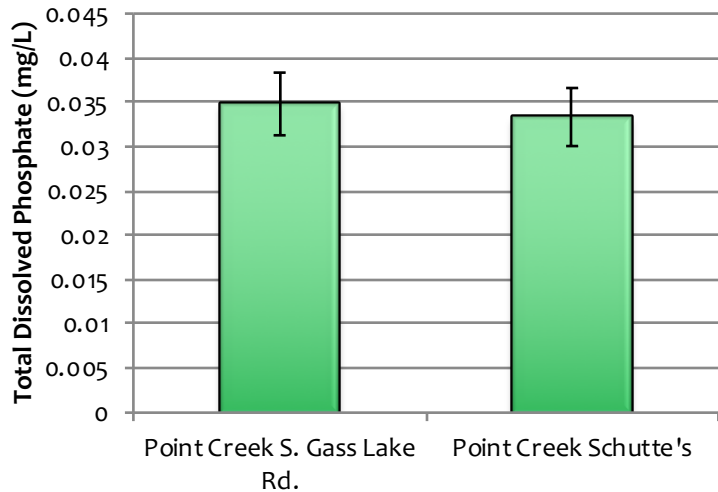
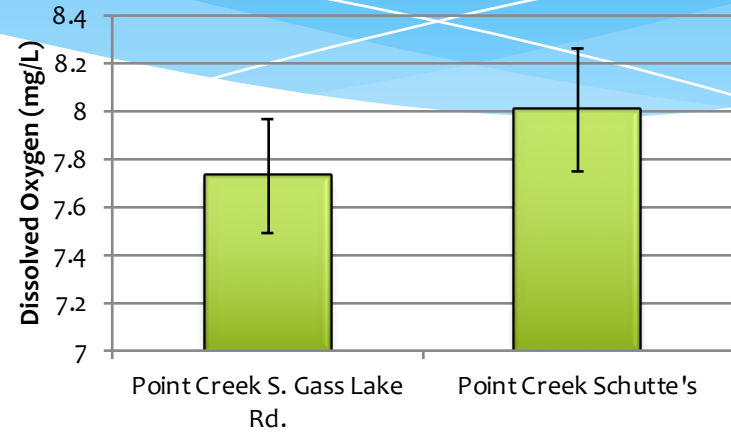
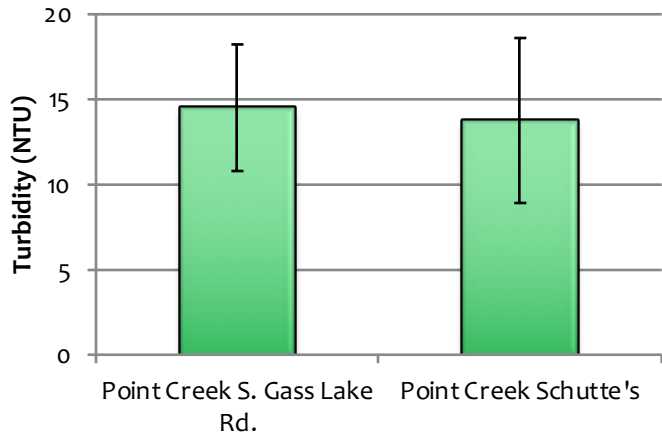
Point Creek

- * Turbidity was consistently well above the normal range.
- * Phosphates were slightly above normal ranges.
- * Ammonia and dissolved oxygen were within the normal ranges.



Point Creek

Physical and Nutrient Parameters



Fischer Creek

- * Fischer Creek sampling sites



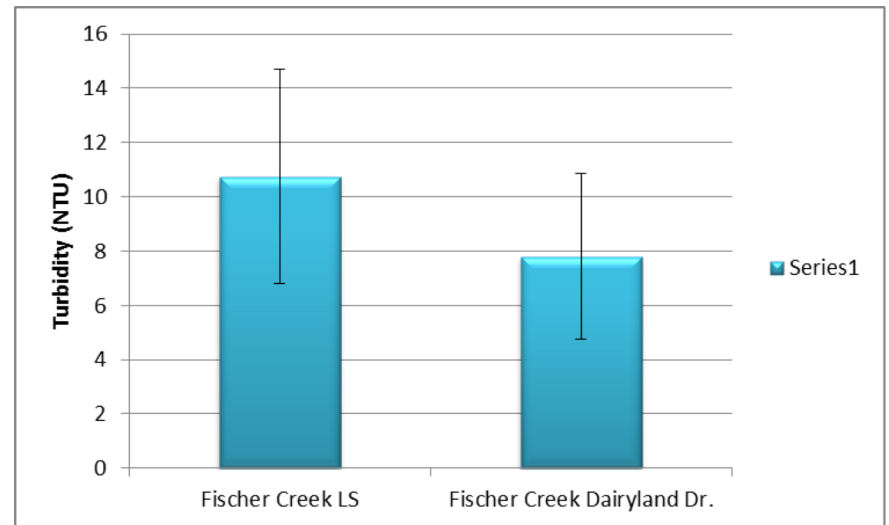
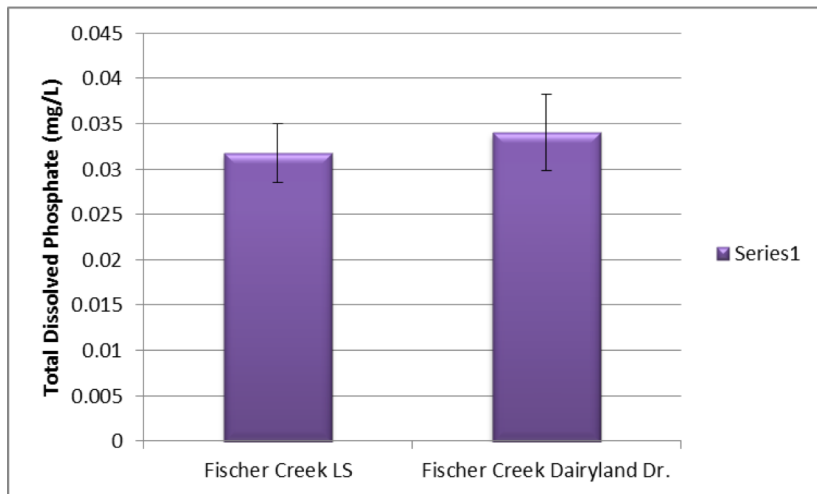
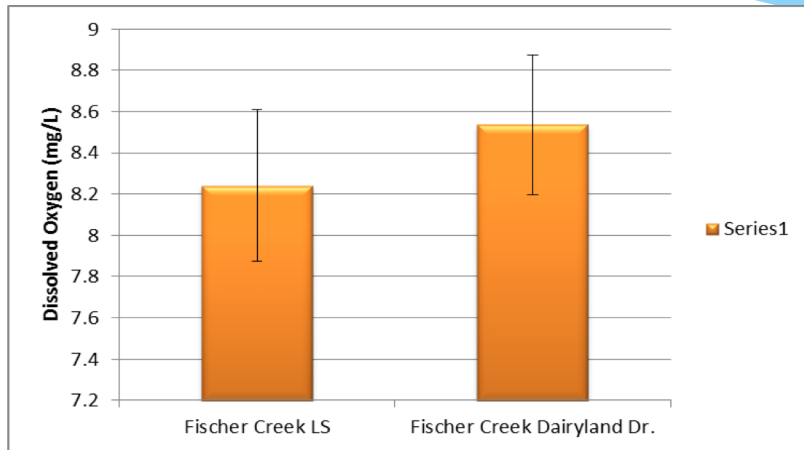
Fischer Creek

- * Overall nutrients increased downstream
- * Dissolved Oxygen decreased downstream
- * Average Total Dissolved Phosphate was slightly above normal



Fischer Creek

Physical and Nutrient Parameters



Interesting Points

- * Point Creek and Fischer Creek
 - * E. coli- normal range.
 - * Rain events: E. coli –advisory, Phosphates- above normal.
- * Pine Creek and Calvin Creek
 - * E. coli- were above the normal range
 - * E. coli- were above advisory or closed
 - * Phosphate levels were well above acceptable range after a rain event
 - * Averages reflect this

Suggestions for Future Research

- * One possible addition for next summer would be a site between Center Road and Sonnenberg Lane for Pine Creek.
- * The addition of sample sites to the creeks with only two sites would give additional data that would be beneficial to understanding the overall health and behavior of the creeks.

Thank you for your time and attention!

