

Measuring Road Salt Concentrations in Water Bodies Around UNH

By: Julia Bowman and Heidi Bucking

What are we Looking at?

- Road salt has negative effects in water (Cañedo-Argüelles et al., 2018)
- Creates high salinity levels in drinking water (Cañedo-Argüelles et al., 2018)
- Pollutes groundwater- drinking water (Hinsdale, 2018)
- NaCl concentrations

Hypothesis

- #1: Water bodies closer to the road will have higher NaCl concentrations
- #2: Salt concentrations will decrease with the transition from winter to spring

Where did we
go?



What did our Research Look Like?

- 1. Go to the Oyster River (farther from road) and College Brook(next to road) 5 times from mid to late March
- 2. Take one water sample at each site
- 3. Submit samples to the UNH Water Quality Analysis Lab where they used ion chromatography to provide us with sodium and chloride concentrations



3/17

50 degrees°F

Sunny

Blue Skies

3/23

62 degrees°F

Sunny

3/24

58 degrees°F

Partly Cloudy

3/25

54 degrees°F

Cloudy

30 % chance of rain

3/29

45 degrees°F

Cloudy

College Brook



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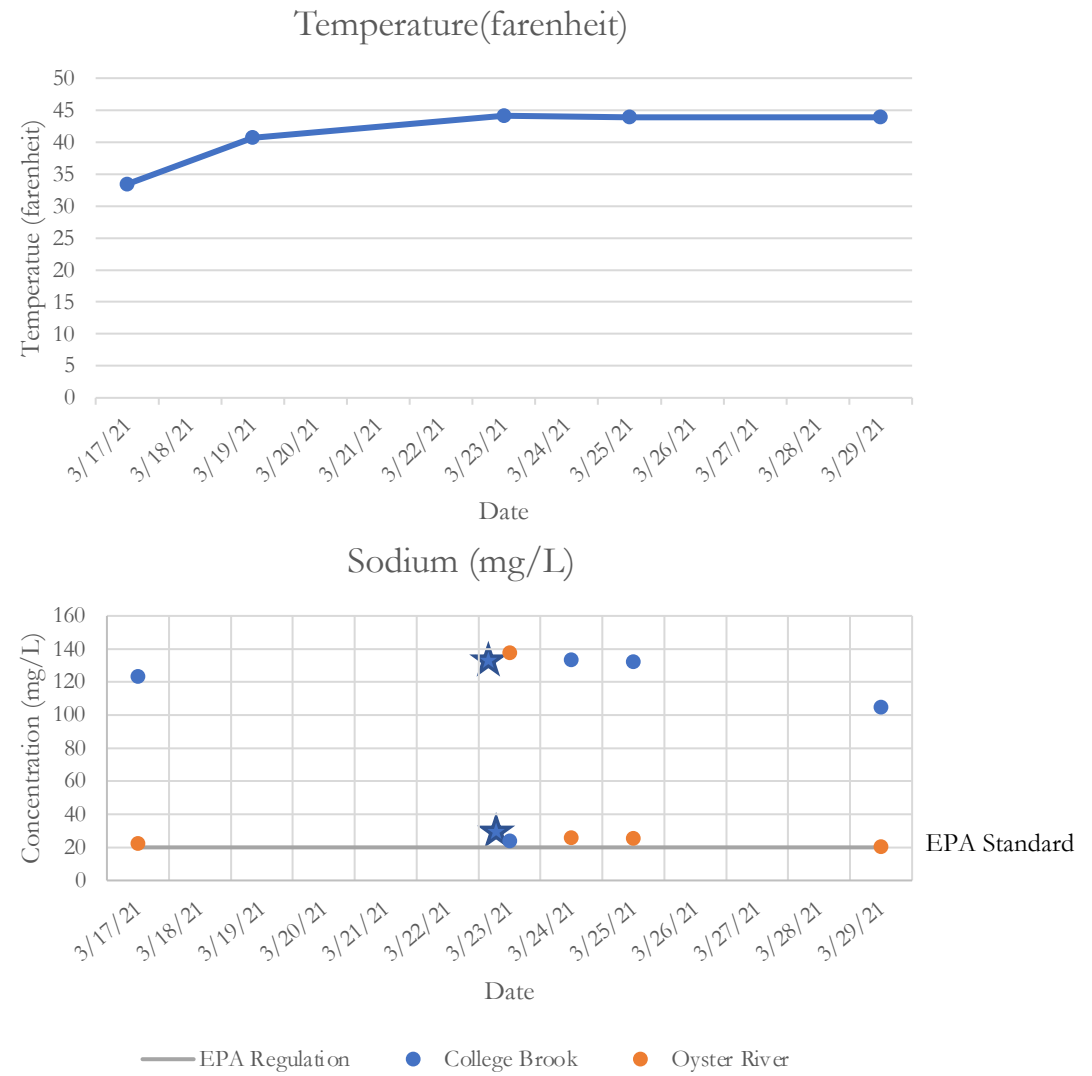
3/29

45 degrees°F

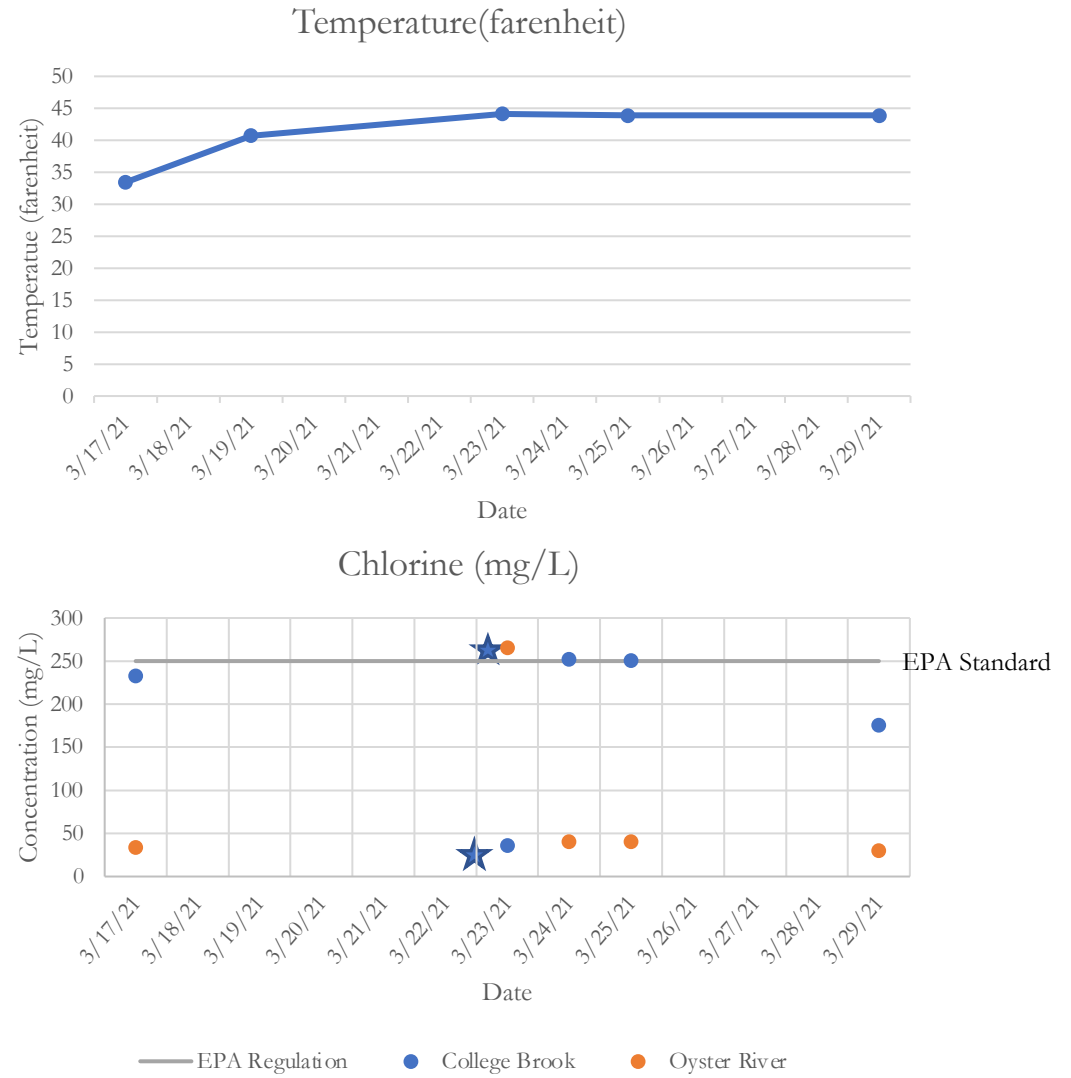
Cloudy

Oyster River

Results



Results



Conclusion

- For the most part, our first hypothesis, stating that distance from the road will affect the concentration of sodium chloride, was correct.
- During the transition from winter to spring, the salt concentration in both bodies of water decreased gradually.

Final Thoughts

- If we could have done further research I would be interested to see how NaCl concentrations change throughout the warmer months of the year
- Investigate further the effects of the levels we found on the College Brook and Oyster River Ecosystems

Thank You!

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Works Cited

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