

DOES PREDATOR URINE DETER BEAVERS (*CASTOR CANADENSIS*) FROM BUILDING DAMS?



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INTRODUCTION

- Almost went extinct in the early 1900's
- Largest rodent found in North America
- Referred to as Ecosystem Engineers
- Teeth contain great amounts of iron



INTRODUCTION_(CONTINUED)

- Considered pests because of dams and tree removal
- Certain dams can break and it can create floods
- Beavers are very territorial
- Are monogamous

BEAVERS IN TEATOWN

- Inhabit Shadow Lake, Vernay Lake, and Teatown Lake
- Number of Beavers are unknown
- Typically one colony consisting of 2 adults and up to 8 kits

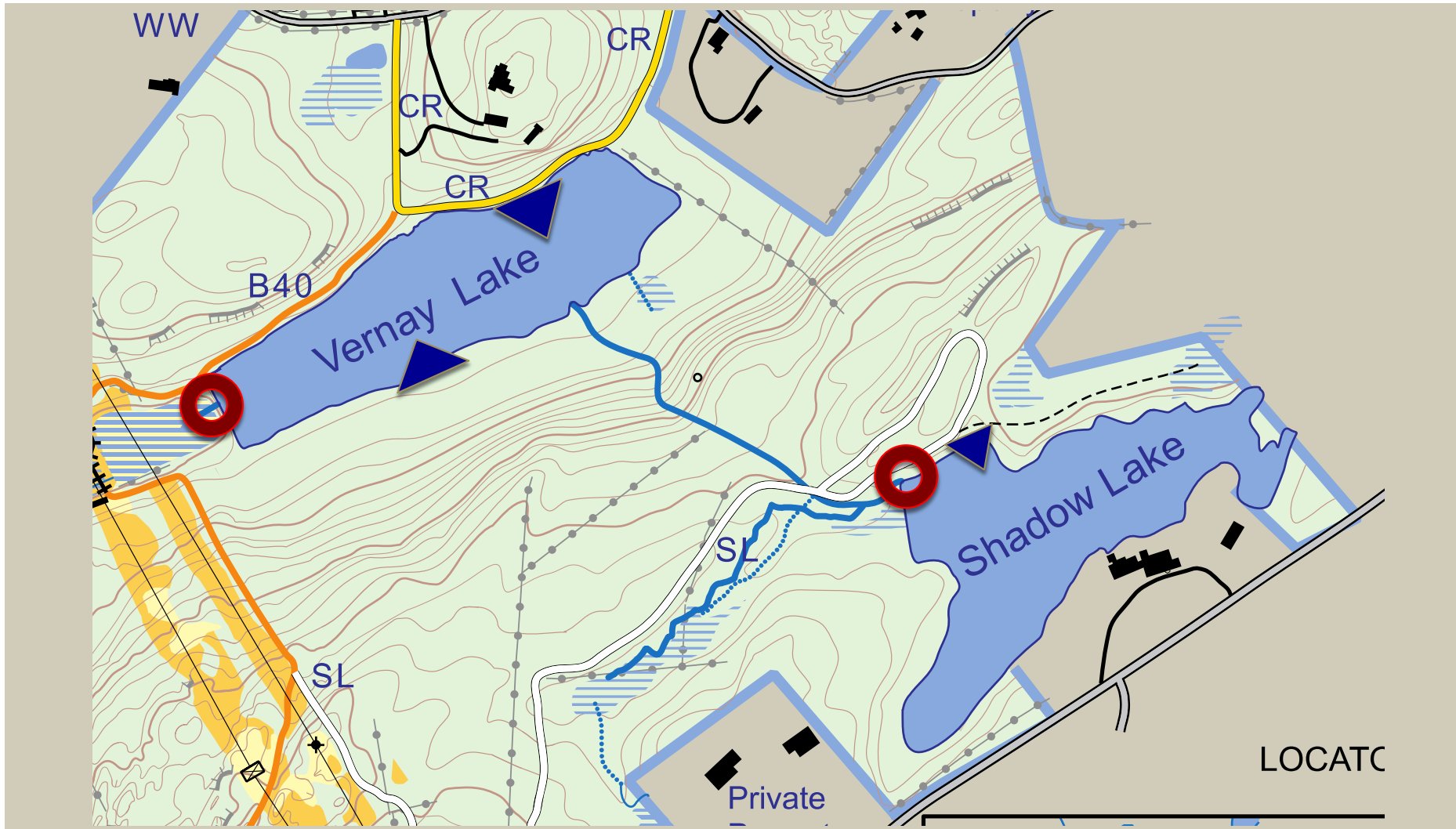


<http://fineartamerica.com/featured/beaver-family-peggy-collins.html>

OBJECTIVE

- To determine whether Wolf urine deter beavers from building dams in a certain area.
- To figure out whether dams affect water quality in spillways

METHODS



PREVIOUS METHODS USED IN TEATOWN

- Used “Beaver Peavers”
- Put pipes from lake to spillway
- Used fencing



METHODS_(CONTINUED)

■ Gather Materials:

- HC600 HyperFire High Output Covert IR
- Pitchforks
- Wolf Urine
- Wolf Duplicate
- FluoroSense™ Handheld Fluorometer
- HI98129 pH/Conductivity/TDS Tester
- Hach Dr 900 Multi-Parameter Handheld Colorimeter



METHODS_(CONTINUED)

■ Control Group (2 days):

- Set up cameras

- Take Dam apart

- Cameras capture photos



METHODS_(CONTINUED)

■ Experimental Wolf Urine (2 days):

- Attach cloth covered in wolf pee over spill ways
- Let cameras capture Beavers activity



METHODS_(CONTINUED)

■ Experimental Wolf Duplicate and Urine (2 days):

- Attach cloth covered in wolf pee over spill ways
- Place Wolf duplicate near spillway
- Let cameras capture Beavers activity



METHODS_(CONTINUED)

■ Water Quality Testing (everyday):

- Gather sample from lake and spillway
- Tear dam apart
- Re-take sample from spillway



METHODS_(CONTINUED)

- Lab Work :
 - Take Nitrate levels of each sample
 - Take Phosphate levels of each sample



RESULTS



RESULTS(CONTINUED)

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21°C

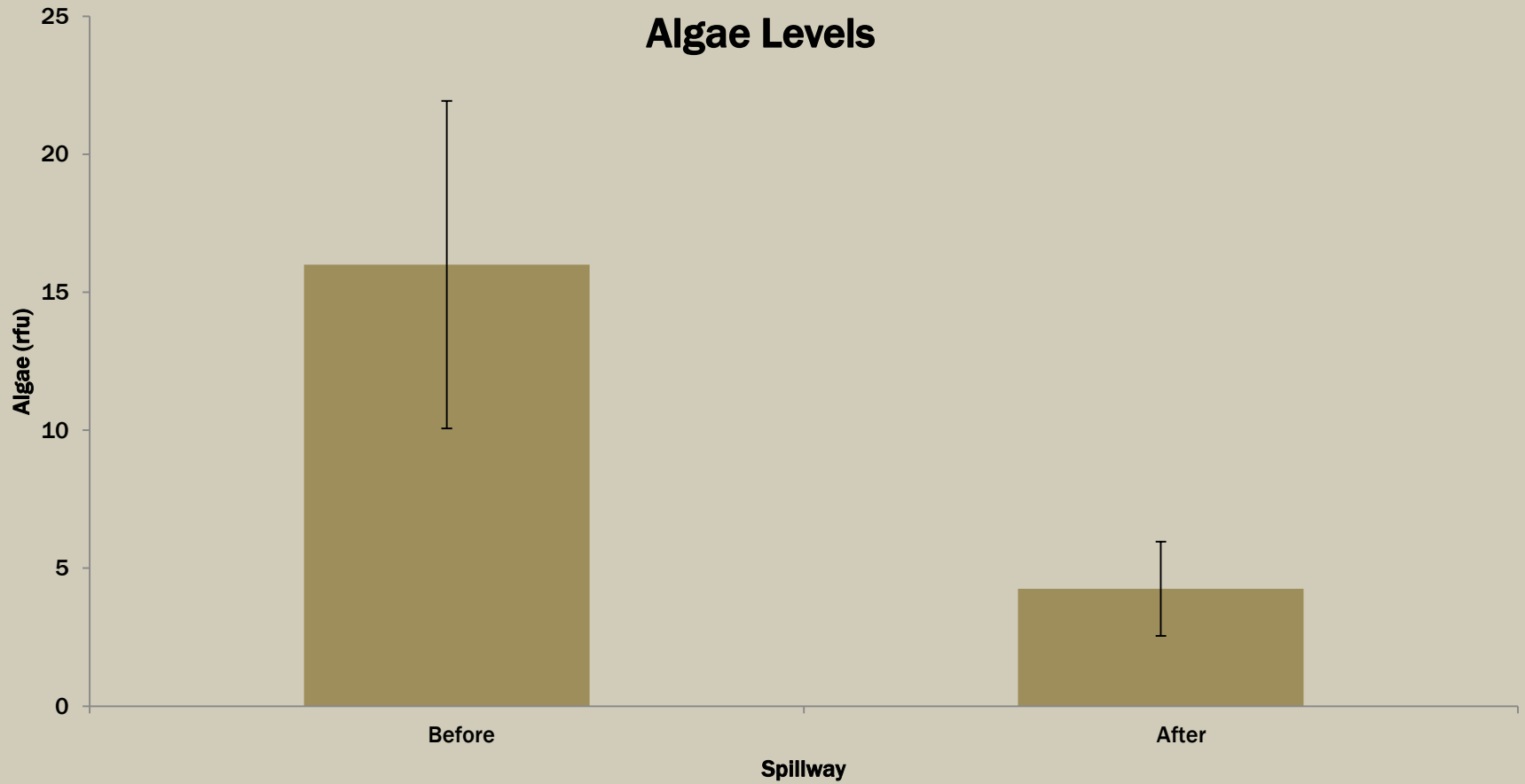


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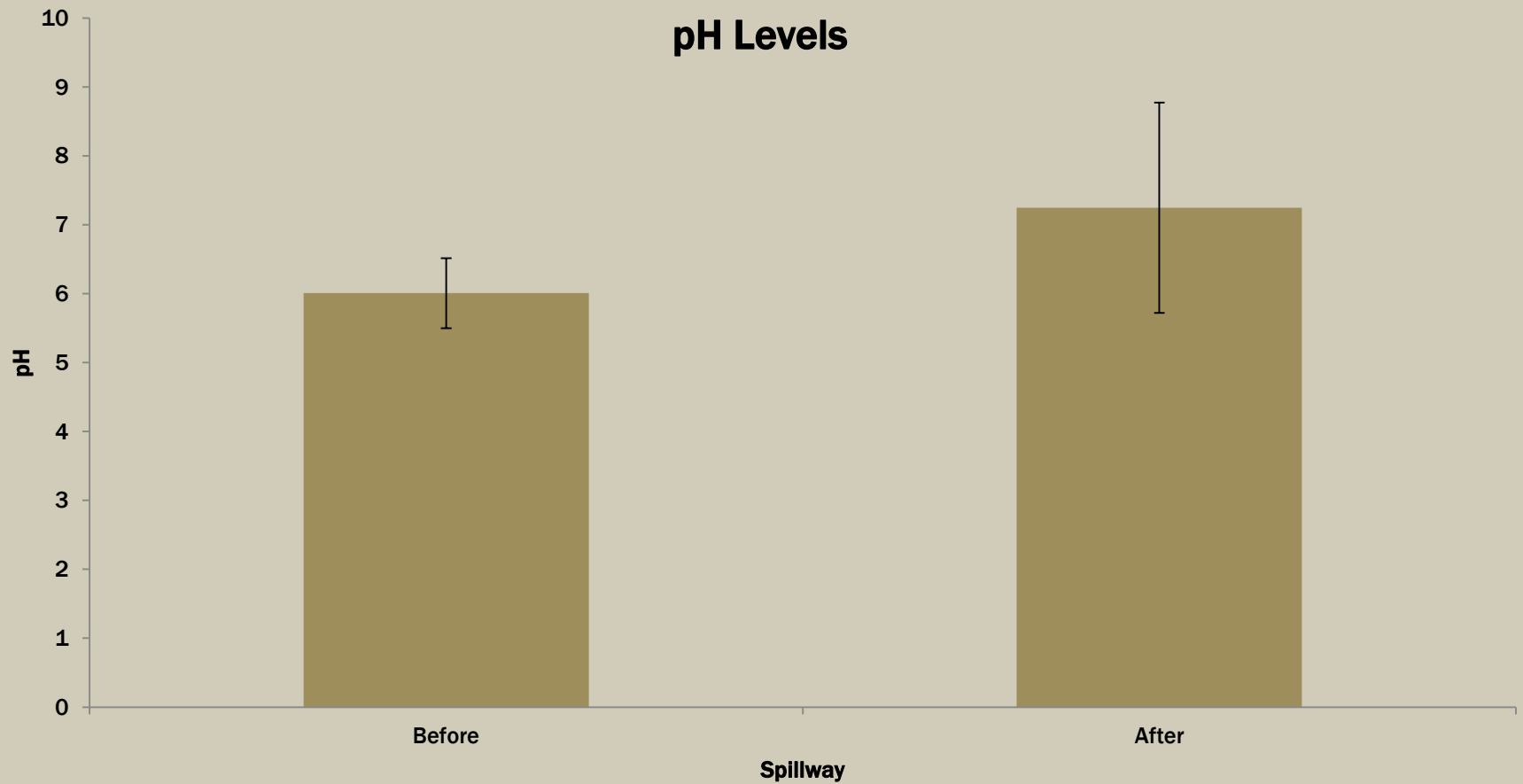
RECONYX

RESULTS

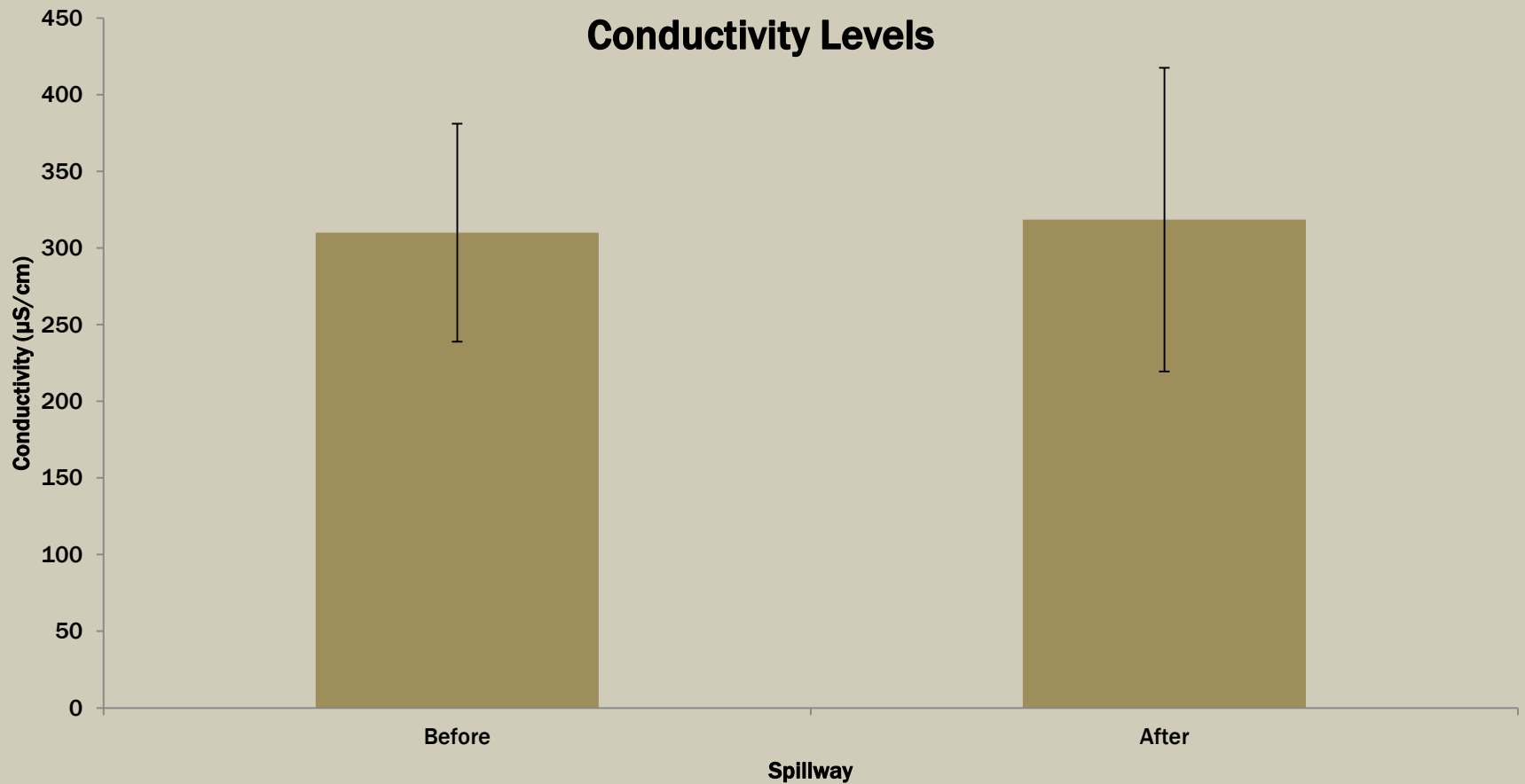
Algae Levels



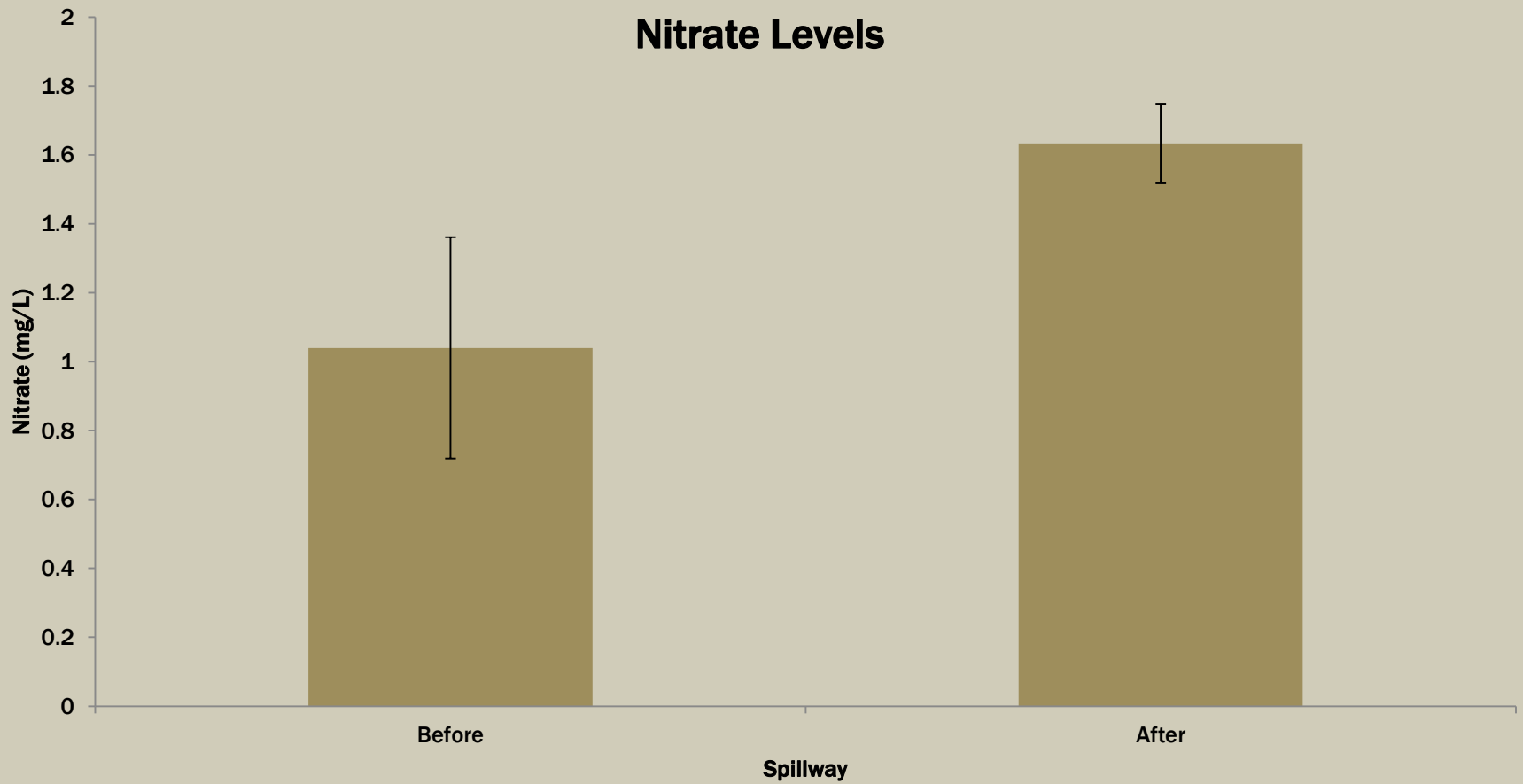
RESULTS_(CONTINUED)



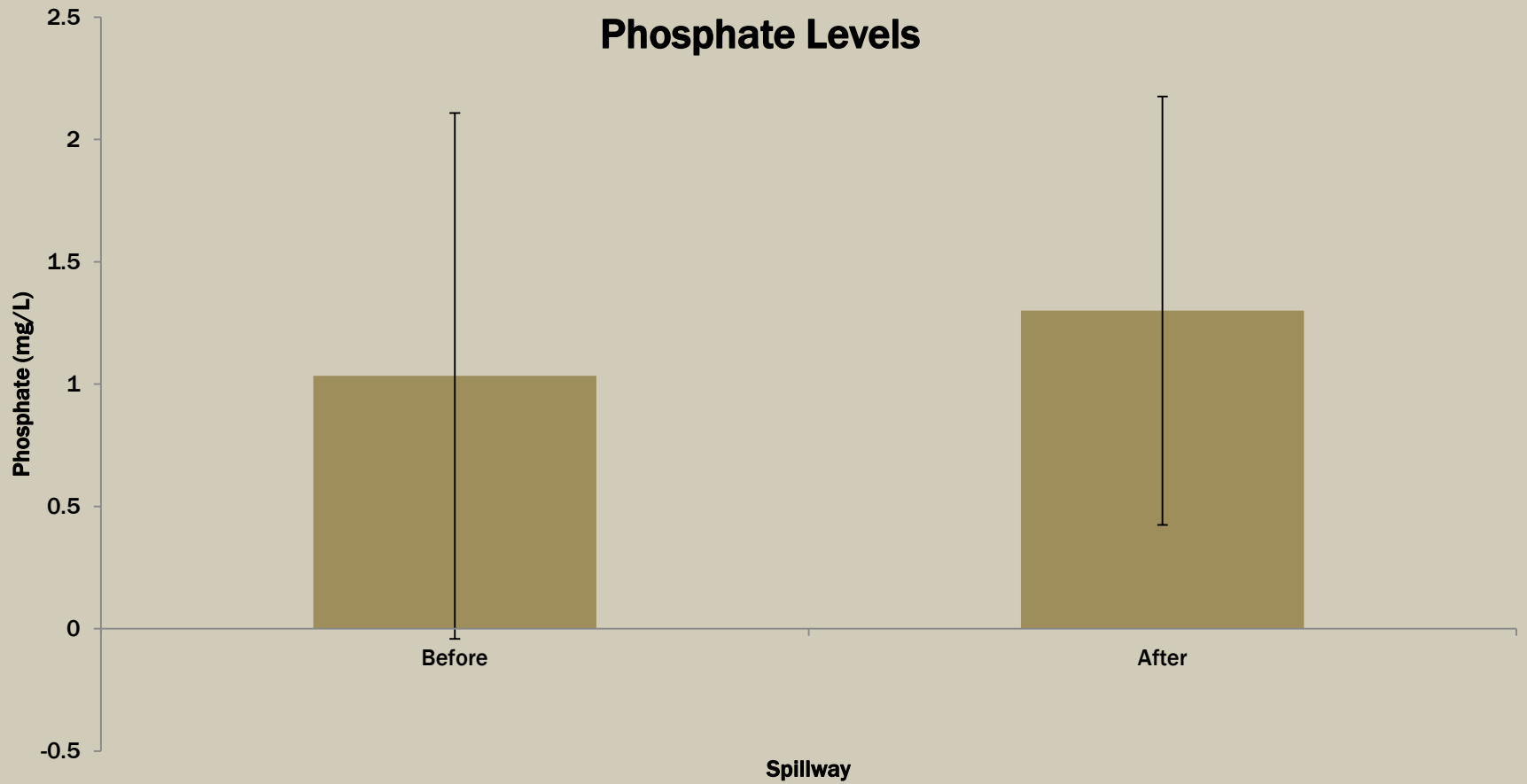
RESULTS_(CONTINUED)



RESULTS_(CONTINUED)



RESULTS_(CONTINUED)



DISCUSSION

- Scent of wolf urine may have weakened
- Scent may have driven beavers to build more so they could keep water to build up for more protection
- Beavers may not recognize scent



DISCUSSION(CONTINUED)

- May have realized that it was not living and continued to work
- Did not recognize natural predator and saw no movement so did not fear



DISCUSSION(CONTINUED)

- Spillways water quality evened out with the lake water flowing into it
- The increase in water quality will have a major impact on organisms living in the stream



CONCLUSION

- **Wolf Urine did not deter Beavers from building their dams in the spillways**
- **Dams altered water quality in the spillways**

ACKNOWLEDGEMENTS

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