



### Area Description:

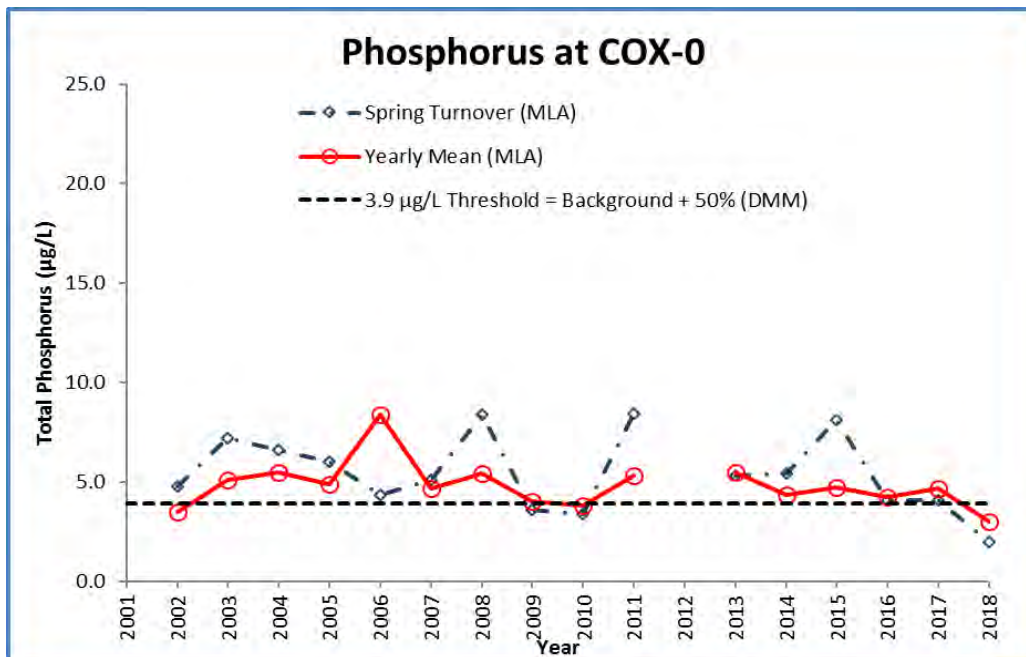
Cox Bay is the southernmost bay of Lake Joseph. The bay is 1.84 km<sup>2</sup> in area and is up to 12 m in depth. A large resort and golf course are located adjacent to the lake, along with a marina and a canal crossing into Lake Rosseau at Port Sandfield. Most of the shoreline area is developed, but many residences maintain forested cover on their properties. More than 15% of the shoreline is open lawn, pavement or is intensely landscaped. The Cox Bay Stewardship Initiative group has identified ten permanent watercourses that drain into the bay. Cox Bay is classified as moderately sensitive and over-threshold by the DMM. Monitoring started in 2002. All stations shown may not be sampled each year.

**Volunteer Recognition: Liz Lundell, Judy Golvin, Guy Burry and Stuart Golvin.**

## Cox Bay (COX)

2018 Water Quality Results: (Note: Hatched cell signifies not tested for in 2018)

| Station | Mean Secchi Disk (m) | Total Phosphorus (µg/L) |             | E. coli Yearly Geometric Mean (cfu/100 ml) | Total Coliform Yearly Geometric Mean (cfu/100 ml) | DOC Yearly Mean |
|---------|----------------------|-------------------------|-------------|--|---|-----------------|
|         |                      | Spring Turnover         | Yearly Mean |  |   |                 |
| COX-0   | 5.2                  | 2.0                     | 3.0         |  |   |                 |
| COX-2   |                      | 5.0                     |             |  |   |                 |
| COX-3   |                      | 2.0                     |             |  |   |                 |
| COX-6   |                      | 2.0                     | 2.0         |  |   |                 |
| COX-7   |                      | 2.0                     | 2.5         |  |   |                 |
| COX-8   |                      | 2.0                     |             |  |   |                 |



## Summary and Recommendations:



Yearly mean and spring phosphorus concentrations at the deep station (COX-0) were below the historic DMM threshold of 3.9  $\mu\text{g/L}$  in 2018, and the lowest recorded to date. The 2018 spring phosphorus concentrations at COX-3, COX-6, COX-7 and COX-8 (only 2 years of data) were the lowest recorded to date. As well, the yearly phosphorus means at COX-6 and COX-7 were the lowest recorded at those stations to date. Secchi measurements vary through sampling years, ranging between 3.35 and 8.25. **Beacon recommends sampling continue to monitor long-term trends.**