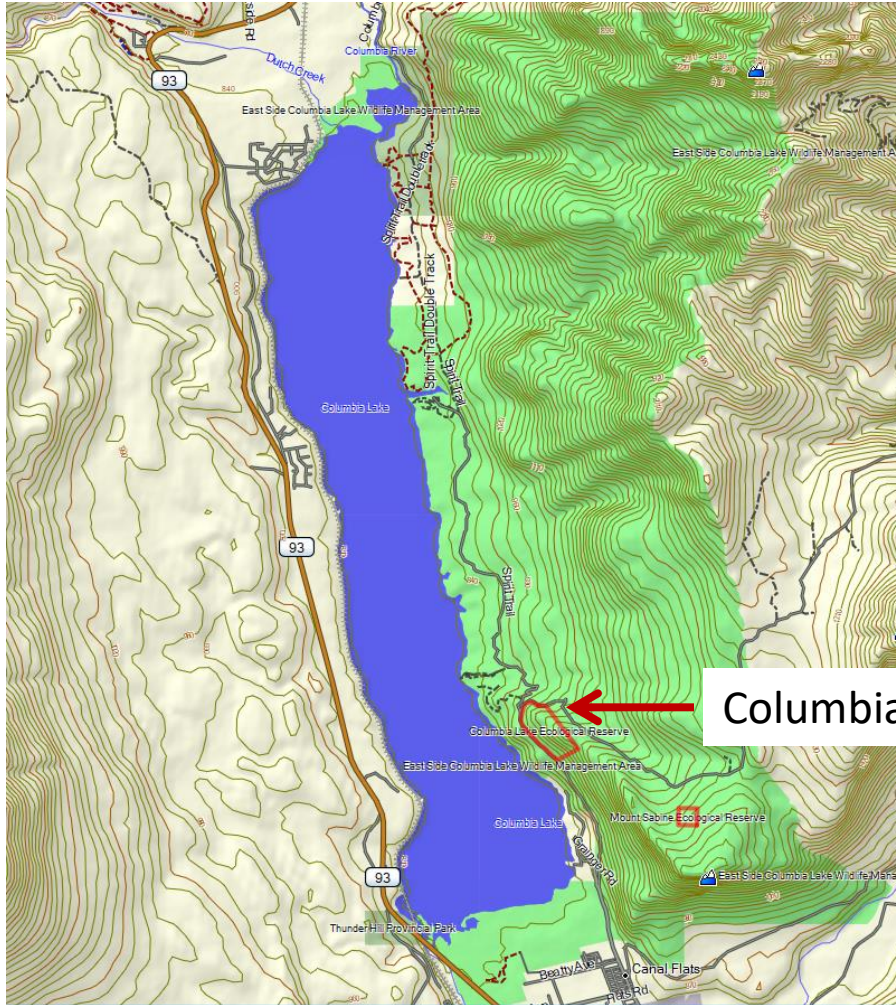


ER #20, Columbia Lake Ecological Reserve

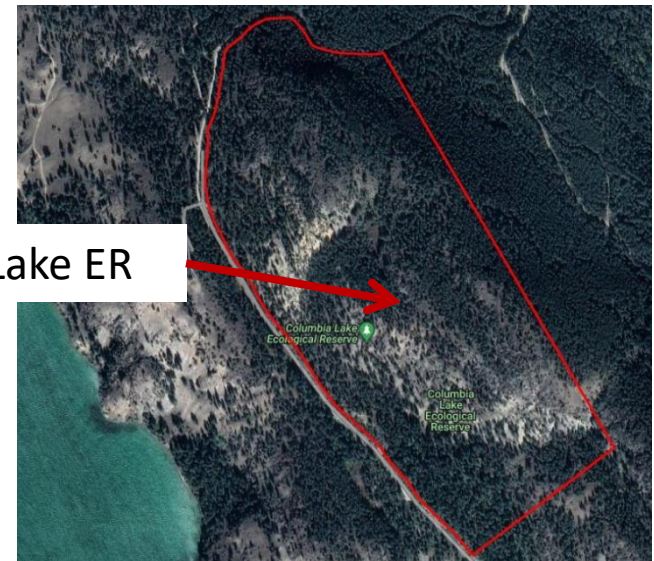


ER Warden Jenny Feick (L) , Ranger Liza Pegura (M), and ER Warden Ian Hatter (R)

Location



- Located SE side of Columbia Lake (29 ha)
- 5 km N of Canal Flats
- Adjacent to Spirit Trail (8000 yr old FN route)
- Surrounded by Columbia Lake WMA (8576 ha)



Columbia Lake ER

Ecological Significance



- Protects regionally significant geological, hydrological and vegetation features associated with mineral springs and cal-tufa/limestone deposits
 - Includes calcicolous plants or “calcicoles” growing in both wet sites (e.g. Giant helleborine) or on limestone cliffs (e.g. Fee’s lip fern)
- Only ER in EKT Ecosection (IDFdm2 biogeoclimatic subzone/variant), but its contribution is minimal (0.41%)

Timeline of Warden Activities

- May 27- Application submitted to BC Parks
- June 17- Intake Interview by phone with Steven Bercek
- July 7 – Onboarding Interview with Steven Bercek
- July 8 - Volunteer Service Agreements endorsed
- August 15 - Regional Operational Onboarding with area supervisors & rangers at Cranbrook BC Parks Office
- Sept 10 - Site Visit with BC Parks Ranger Liza Pegura, Ian Hatter and Trevor Kinley
 - Attempted to locate the boundaries of the ER
 - Walk the perimeter of the ER
 - Record natural history observations
 - Identify and discuss issues and potential solutions
- Sept 26 - Site report completed
- Oct-Dec - Additional research & report writing

Natural History Observations

- Arthropods: 2
- Birds: 6
- Mammals: 4
- Lichens: 1
- Plants: 28



iNaturalist: 300 observations of 123 species, 49 identifiers, 6 observers

Ebird: 58 species (excludes water/shore birds) at Tilley Memorial Park

Species at Risk: 5+ vascular plants, 1+ mammal (RMBS), 1+ bird (FLOW)

Monitoring: Giant Helleborine (annually), Limber Pine abundance/blister rust (periodically)

Issues – Boundary Markers

- The signs that have been placed adjacent to the lower access roads are clear and current
- There are no signs or markers of any kind along the upper boundary of this ER (boundaries are straight lines and do not conform to contours)



Issues - Access

- Access to the lower portion of ER is along a rough 2WD gravel road accessible by AWD SUV
- The road to access the upper portion is full of deep ruts and rocks with steep grades that require a 4WD truck or ORV
- A trail biker has accessed the upper area of the ER (above the cliffs) using an old trail
- Because the upper perimeter of this ER is unmarked, trail bikers may not know they are in the ER



Issues – Human Use

- Due to difficult access and lack of trails, human use is low.
- Evidence of campfire and dirt bike use along dry grassy areas above the limestone cliffs
- Most use is likely adjacent to west boundary of ER where people access the Spirit Trail.



Recommendations

1. Determine if ER boundary has ever been officially surveyed.
2. Find out who (if anyone) is responsible for road maintenance in the area.
3. Clearly mark the upper (north-east) boundary of the ER with signs.
4. Survey for presence of alien invasive plants near access roads.
5. Develop and implement a plan to remove alien invasive plants.
6. Assess ongoing health of limber pine trees (e.g. evidence of white pine blister rust).
7. Inventory Indigenous cultural and archaeological resources (location and significance) in collaboration with the Ktunaxa First Nation.
8. Set up vegetation plots to monitor change in species composition with climate change, including the limestone cliffs and wet sites.
9. Consider setting up a wildlife camera to document wildlife use.
10. Consider using a drone to monitor less accessible portions of this ER.

Travel & Volunteer Hours

- Travel: to/from Cranbrook for operational onboarding meeting (Aug. 15), to pickup ER warden field notebooks and pins (Sept 22), and for site visit to Gilnockie ER (Oct. 20)
- Travel to/from Columbia Lk ER (Sept 10), costs covered by Trevor Kinley
- Hours for site visit – 2.5 hr + 2 hours travel time
- 25+ hours for report writing, research, GPS map-making, phone calls, correspondence

Thanks to BC Parks staff, other ER wardens and Trevor Kinley

