

**Alberta Conservation Association  
2023/24 Project Summary Report**

**Project Name:** New Lake Aeration Development

**Fisheries Program Manager:** Peter Aku

**Project Leader:** Brad Hurkett

**Primary ACA Staff on Project:** Troy Furukawa and Ariel Schlereth

### **Partnerships**

Government of Alberta

### **Key Findings**

- Completed second year of monitoring winter dissolved oxygen and temperature at Blue Ridge Pit Pond to determine its aeration potential.

### **Details**

Alberta Conservation Association's (ACA) Lake Aeration Project promotes angling opportunities in stocked waterbodies across Alberta where such fishing opportunities are otherwise limited. Waterbodies we aerate are prone to fish kills during winter and summer months due to low dissolved oxygen (DO), but with aeration, we maintain DO concentrations at levels that promote year-round survival of stocked trout. Each year, we receive several requests to aerate waterbodies throughout the province. Given the substantial cost associated with aeration operations, we carefully screen candidate waterbodies to ensure that we address top Government of Alberta provincial-level priorities. After a preliminary review of the requests received, we develop a short list of lakes for further screening as potential candidates for future aeration. Key screening criteria include alignment with multi-year patterns in frequency and severity of fish kills, water quality data (particularly nutrients and DO profiles), lake depth and size, and proximity to electrical power and roads. In 2023/24, we continued to screen Blue Ridge Pit Pond (year two of three) by measuring winter DO and temperature profiles at two monitoring stations that were established in 2022/23. Following year two of our screening process, it is too

early to determine if Blue Ridge Pit Pond is suitable for aeration, and we will continue our investigation in 2024/25.

## Photos



Photo 1. ACA staff preparing dissolved oxygen and water temperature monitoring equipment at Blue Ridge Pit Pond. Photo: Troy Furukawa



Photo 2. ACA staff rigging data loggers to a float line before being deployed in the pond. Photo: Troy Furukawa