Ontario Pumped Storage Project May 2020 Conceptual Design



- 1 Upper Reservoir: A new reservoir constructed adjacent to the Base administrative complex; approximate surface area of 375 acres, depth of 20 meters.
- **2** Upper Inlet/Outlet: Controls the flow of water in and out of the upper reservoir.
- 3 Primary Spillway: Essentially a large funnel-shaped drain; a failsafe in the unlikely event the upper reservoir is nearing capacity.
- 4 Secondary Spillway: a back-up drain for the upper reservoir which acts as an additional failsafe to the Primary spillway; engineered for a controlled release of flow.
- **6** Access Tunnel: Provides personnel access to the powerhouse for construction, operations and maintenance.

- 6 Maintenance Access: Contains an access shaft to the tailraces and a divider that can be used to isolate the tailraces.
- aquatic habitat and organisms, reducing the potential impacts on fish and turbidity.
- 8 Switchyard: The electrical connection between the pumped storage facility and the provincial electricity system.
- 9 Offices & Control Room: Workplace for day-to-day operations and maintenance of the facility.
- 0 Ring Road: A new roadway around the perimeter of the upper reservoir for safety and maintenance.
- 1 Ventilation Shafts: Enables air circulation.



7 Lower Inlet/Outlet: A manifold used to divert water; each port would be screened and raised off the lakebed to avoid