

CAMPBELL RIVER SYSTEM Relative Storage Volumes

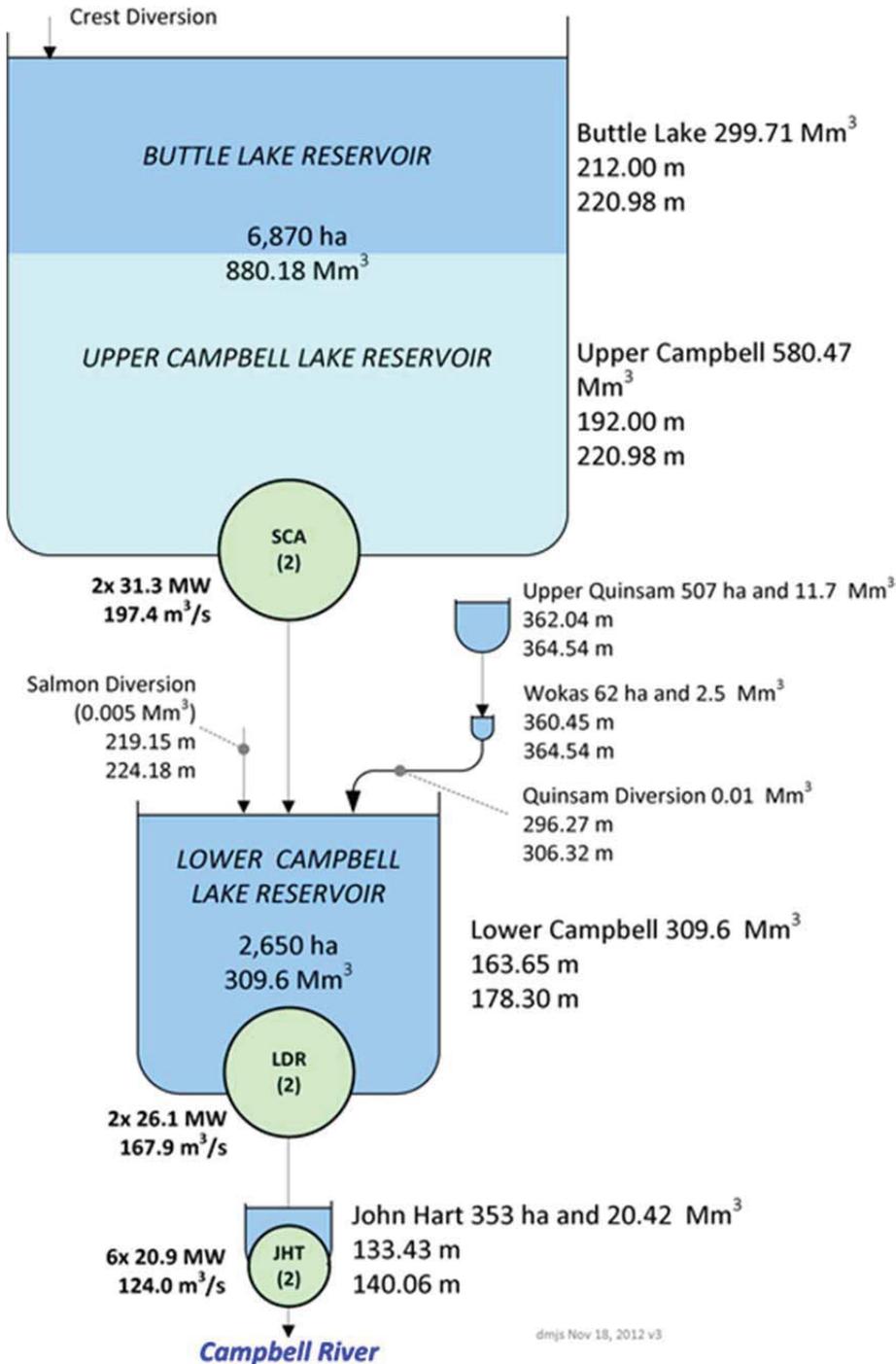


Figure 2-3: Campbell River System: Relative Storage Volumes

a ~38 m conduit to a low level outlet (hollow cone valve). The low level outlet is only intended for emergency use.

- **Strathcona Generating Station:** The generating station is located at the toe of the earthfill dam and houses two 42,000 hp (2x 31.3 MW) vertical shaft Francis turbines with generator nameplates of 2x 37.5 MVA. Total licence discharge for the purpose of power is 197.4 m³/s. The turbines discharge directly into the channel of Campbell River and immediately thereafter into the Lower Campbell Reservoir.

2.2.1.2 Ladore Project

- **Background:** The Ladore Dam (main dam) and the Loveland Bay and Big Slide Saddle Dams were completed in 1949, forming Lower Campbell Reservoir. The Ladore powerhouse with two generating units was added in 1957, ~500 m downstream of the dam. Ladore Dam is located approximately 15 km west of the City of Campbell River and is situated on the natural outlet on the west arm. Big Slide and Loveland Bay Saddle Dams are situated approximately 4 and 6 km northwest of Ladore Dam.
- **Campbell Lake Reservoir** (“Lower Campbell Reservoir”): The surface area is ~2,650 ha and has an estimated total storage of ~316 million m³ at full supply level of 178.3 m. Between the storage licence limits for power, 178.3 m and 163.65 m, the reservoir has an estimated active storage of 309.6 million m³. The historical operating range of the reservoir has been between 178.3 m and 174.0 m. In addition to Ladore Dam, the reservoir is impounded by two saddle dams.

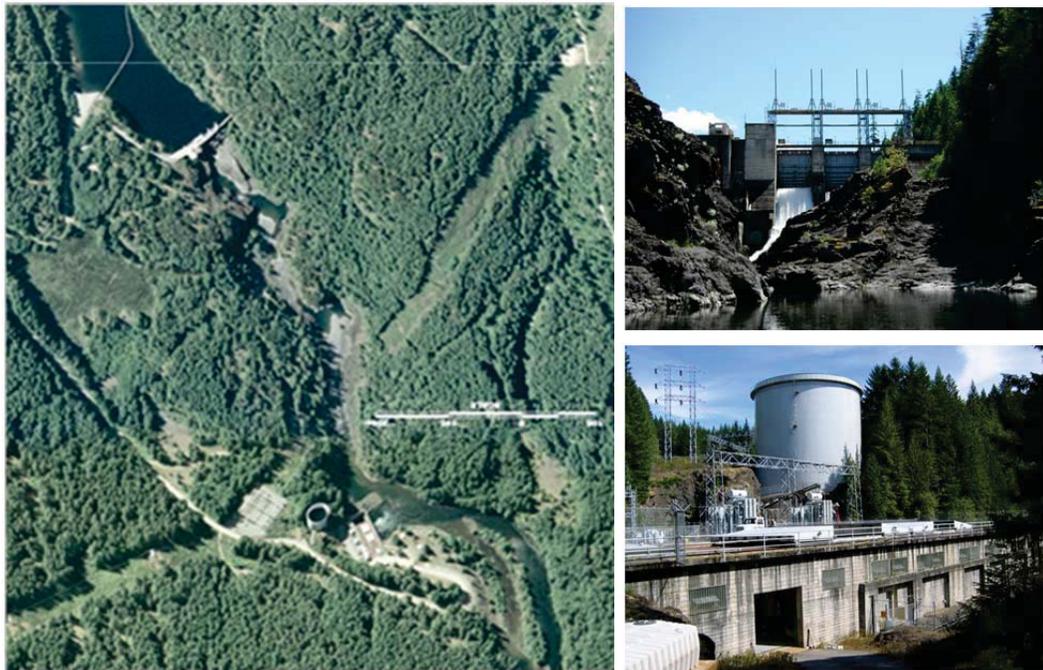


Figure 2-5: Ladore Spillway (top right) and Generating Station (bottom right).

- **Loveland Saddle Dam:** The earthfill dam is 80 m long, 6 m high, and has a crest elevation of 179.8 m. At elevations greater than ~174 m, it prevents Campbell Lake Reservoir from overflowing to Mohun Creek which discharges to Menzies Bay.