



# Operation & Maintenance of a Water Supply Dam

## Inspections - General

- Check for any leakage from the dam structure
- Check for any seepage at the base of dam including quantity and quality (turbid or clear) of seepage
- Check for debris blocking the spillway
- Check for any signs of burrowing animals or beavers
- Check for floating debris, algae, or sediment accumulation in reservoir
- Check for signs of erosion
- Check for new occurrences or noted changes in dam condition from previous inspections

## Inspections – Concrete Structures

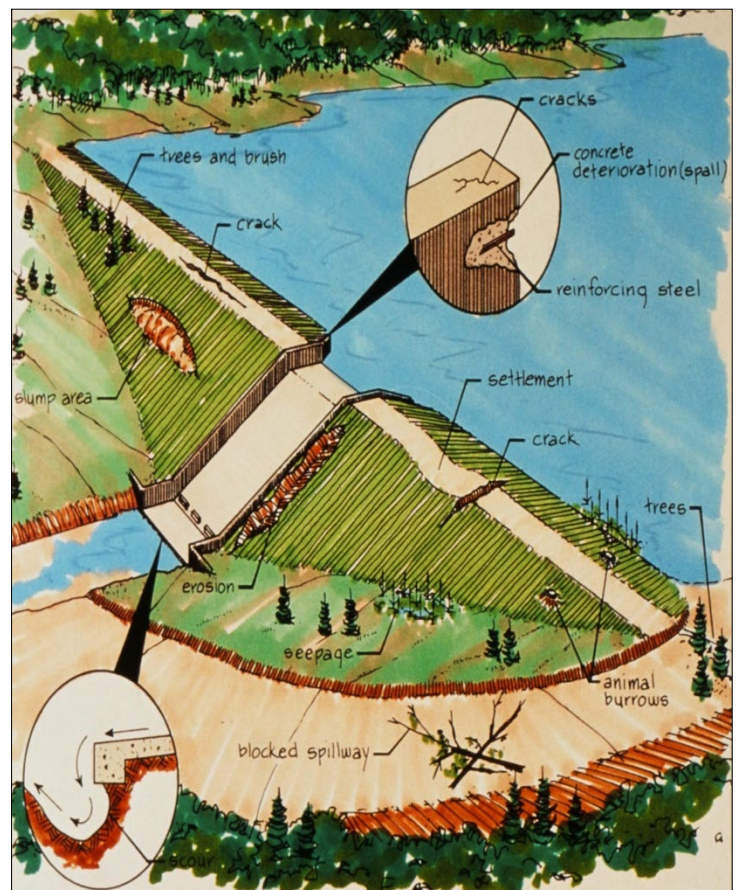
- Check for cracks or other signs of concrete deterioration
- Check for signs of erosion around concrete structures
- Check for shifts in alignment of concrete structures

## Inspections – Earthen, Rockfill or Wooden Structures

- Check condition of embankments, timber cribs, gabions, liners, etc.
- Check for settling or cracks in the dam crest, slumping along the dam face
- Check condition of rip-rap along the upstream face of the dam
- Check for and remove any vegetation (shrubs, trees) from around the dam

## Water Supply Dam Operation

- Develop operating procedures for normal, flood, drought and emergency operations
- Determine frequency for routine inspections and maintenance
- Periodically inspect dam structure and equipment, test dam equipment (gates)
- Monitor water level in reservoir including max and min water levels
- Inspect dam before and after major precipitation and/or runoff events
- Address any issues identified in dam inspections (eg. seal cracks, replace rip-rap, repair settled crest, clear debris)



BC MINISTRY OF FORESTS, LANDS AND NATURAL RESOURCE OPERATIONS

**Keep a record of dam and reservoir operational conditions, inspection findings, pictures of the dam, and a log of repairs**