ASSESSMENT OF DAM OPERATIONS ON RESERVOIR
AND RELEASE WATER QUALITY

Operation of Glen Canyon Dam has significant effects on the water quality of Lake Powell and Glen Canyon Dam releases

- Routing of inflow currents
- Displacement of hypolimnetic water
- Daily variations in release
- Tailwater re-aeration

Severe water quality problems may result after periods of extended meromixis and can extend far upstream of Glen Canyon Dam

- Reduced hypolimnetic oxygen levels
- Nutrient trapping
- Production of hydrogen sulfide
- Toxic effects to biota
- Corrosion to powerplant structures

Operational patterns can reduce reservoir meromixis

- High sustained powerplant releases
- Operation of alternate release structures
- Timing with external processes