Draft outline
2003 State of the Colorado River Ecosystem Report

I. Executive Summary

II. Law, Policy and Administration
   ‘Law of the River’ & History of the GCD project
   1956 CRSPA
   1968 CRBPA
   Coordinated Long-Range Operating Criteria
   1992 GCPA
   1996 GCD EIS & ROD
   GCDAMP
   AMWG
   TWG
   GCMRC
   IRP
   Other Federal Compliance Laws and Responsibilities
   ESA
   1994 Biological opinion
   Section 7 consultations
   NHPA
   Trust responsibilities

III. Above Glen Canyon Dam (including Lake Powell, water releases and power)
    Colorado River Basin Climate and Hydrology
    Past Lake Powell inflows
    Future projected Lake Powell inflows
    Lake Powell Limnology
    Reservoir Characteristics
    Thermal Characteristics
    Water Quality
    GCD Operations
    Past Releases
    Projected Future Releases
    Power
    Hydropower Production
    Impacts to Western
    CRSPA Repayment schedule
    Wholesale rate
    Retail rate
    Impacts to non-profit power distributors

IV. Aquatic Ecosystems Resources
    Physical Habitats
    Downstream release characteristics of water
Tailwater program
Thermal program
Water Chemistry (Multi parameter continuous samplers)
Unregulated tributary inflows

Sediment Resources
Fine-sediment overview
  Sand mass balance
  Sandbar monitoring
Bed-grain size data
  Main channel
  Eddies
Coarse sediment tributary inputs
  Debris Fans and Rapids
Channel Mapping

**Food Base**
Vegetation
Invertebrates
Trophic linkages

**Fish**
Native Fish
  Humpback Chub
  Flannelmouth Sucker
  Razorback Sucker
  Bluehead Sucker
  Speckled Dace
Non-native Cold-water species
  Rainbow Trout
    Lee’s Ferry
    Downstream
  Brown Trout
Non-native Warm water species

**Cultural**
Historic properties (i.e. Spencer’s steamboat)
TCPs
Other cultural resources of traditional concern

**Recreation**
Lee’s Ferry Trout Fishing
  Creel data
Day rafting
White water boating
  Safety
Recreation Economics

V. Terrestrial Ecosystem Resources

**Physical Habitats**
Higher elevations sediment
Coarse sediment tributary inputs
   Debris Fans
Springs
   Associated vegetation and fauna

Food Base
   Riparian Nutrient Dynamics
   Invertebrates

Vegetation
   Hydro-riparian (Marsh) zones
   Lower riparian zone
   Upper riparian zone

Wildlife
   Endangered and other Special Status Species
      Bald Eagle
      Peregrine falcon
      KAS
      SWWFC
   Non-endangered Arizona State Species of Concern
      Niobrara Ambersnail
      Northern Leopard Frog
      Belted Kingfisher
      Osprey

Cultural resources
   Archeological Sites
   Traditional Cultural Properties
   Other Cultural Resources of Traditional Concern
      Ethnobotanical resources

Recreational resources
   Beaches

VI. Information Technology (provided as a source for future inquiries)
   Data base management system
   Remote Sensing and Survey
   GIS
   GCMRC library

VII. Appendices
   Glossary of terms
   Operating Criteria for GCD in accordance with the 1992 GCPA
   Charter of the GCD AMWG,
      Vision and Mission Statement,
      Principles and Goals