



Science Plan for Temperature Control Device

Background

- Biological Opinion 1978, 1994
- Draft Environmental Assessment for proposed structure released in January 1999
- Comments received with recommendation that a science plan be included in the draft
- Bureau of Reclamation requested that GCMRC draft a science plan to accompany the environmental assessment
- GCMRC developed a draft and helping in a workshop designed to review and improve plan



Science Plan for Temperature Control Device

Science plan objectives:

Determine biological and physical requirements associated with mainstem spawning and recruitment of HBC and other native fish in order to address Biological Opinion issues.

Identify parameters and affected resources

Provide testable hypotheses associated with spawning and recruitment and anticipated effects on associated resources.

Provide geographic study areas to test hypotheses

Provide a schedule for implementation



Science Plan for Temperature Control Device

Science plan organization:

- I. Introduction
- II. Operational Scenarios
- III. Testable Hypotheses for identified resources
- IV. Study Site designation
- V. Schedule for implementation



Science Plan for Temperature Control Device

Science plan organization:

I. Introduction

Historic context for temperature control

Life history of humpback chub & hypotheses

Identified physical and biological requirements

II. Operational Scenarios

Three scenarios based on fish needs and life history hypotheses

III. Hypotheses

Hypotheses developed for each identified resource

Many resources have multiple hypotheses

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Science plan organization:

IV. Study Sites

Lake Powell, Glen Canyon to Paria

55 mile to 72 mile + 30 mile

126-130,

194-213, 246-249

V. Schedule for Implementation

Information that needs to be determined regarding physical capabilities

Information associate with biological resources that can be determined prior to operations

Information that can be evaluated during operations.