Northwest Power and Conservation Council

July 6, 2004

MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Mark Fritsch

SUBJECT: Presentation on the *YKFP-Klickitat Design and Construction*, Master Plan, Project 1988-115-35.

Action

At your meeting in Spokane the Yakama Nation (YN) will be presenting an overview of their Master Plan (step 1) to address passage improvements and upgrading existing production facilities (i.e. Klickitat Hatchery) in the Klickitat subbasin. The YN will be submitting their Master Plan later this fall to initiate Step 1 review of the Major Project Review Process.

Background

As part of the Council decision on March 16, 2001 for the Columbia Gorge province the Council outlined a "three-step" review sequence encompassing the proposed passage and production facilities in the Klickitat subbasin.

The master plan (step 1) is intended to provide information to address passage improvements and upgrading existing production facilities (i.e. Klickitat Hatchery) in the Klickitat subbasin to implement an artificial production program (supplementation and augmentation) for spring chinook, fall chinook and coho salmon and steelhead. Spring chinook and steelhead production is aimed at increasing natural spawners, while the coho and fall chinook elements are primarily aimed at augmenting harvest opportunity.

In addition, the program proposes improvements to existing passage facilities that would increase the ability of spring chinook and steelhead to access additional habitat, thus improving natural production, and allow for the collection of spring chinook and steelhead broodstock to meet supplementation goals as well as monitoring associated with these two species.

851 S.W. Sixth Avenue, Suite 1100
Portland, Oregon 97204-1348

Telephone: 503-222-5161
Toll free: 800-452-5161

Fax: 503-820-2370
Web site: www.nwcouncil.org

Klickitat Subbasin Anadromous Fishery Master Plan

July 13, 2004

- Master Plan Overview
- Implementation Details
- Future Actions
- Benefits

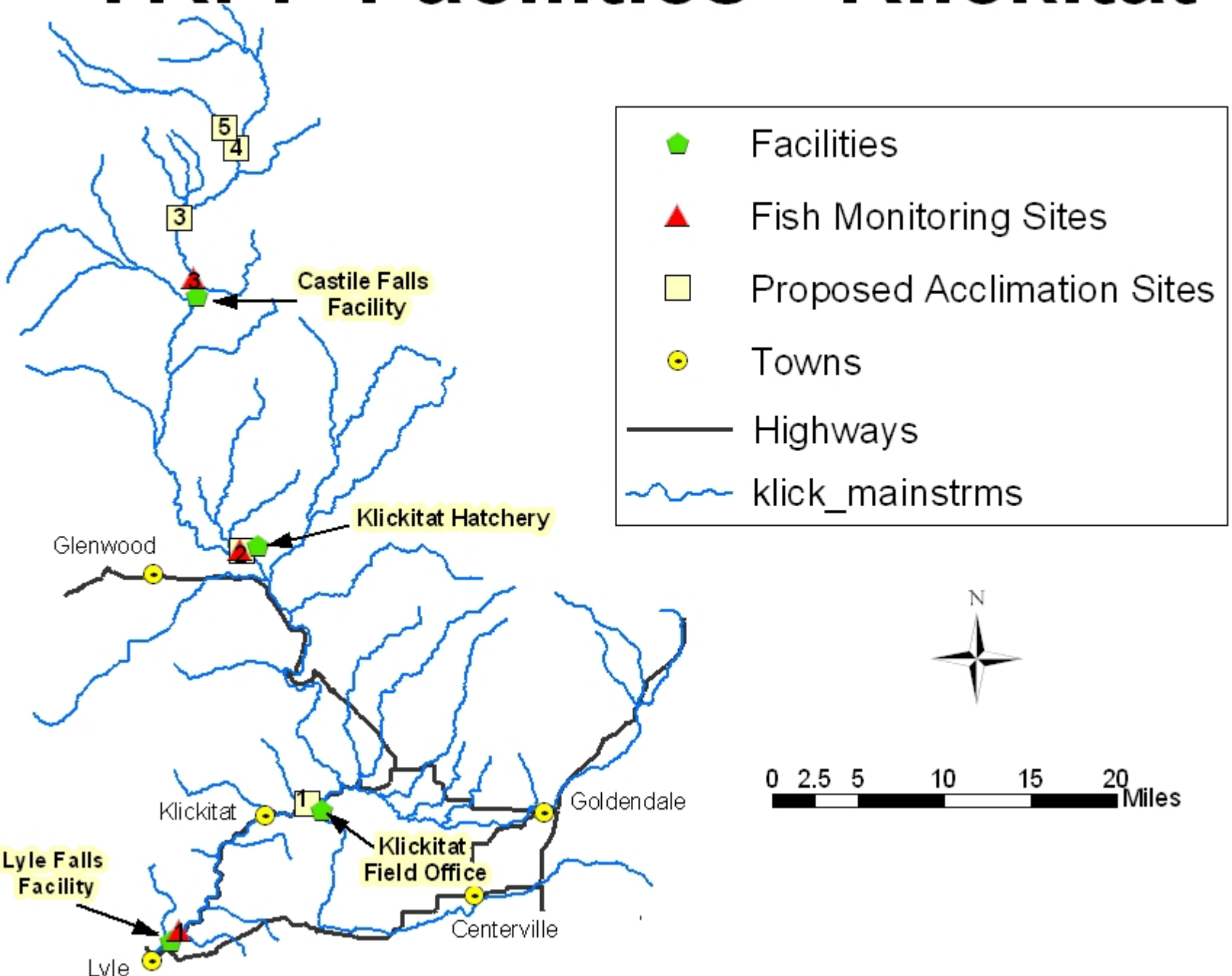
Purpose of Master Plan

- NPPC and BPA require Master Plans for new programs and facilities proposed to restore salmon populations throughout the Columbia River Basin.
- Document becomes guide for future YKFP activities in Klickitat Subbasin.
- If adopted into Council's F&W Program, document becomes foundation for funding of infrastructure development and long term O&M.

Yakima/Klickitat Fisheries Project

- Conceived in 1982 by YN and Power Council
- MOU signed in 1994 between WDFW and YN for restoration of historic natural production
- Yakama Nation as Lead Agency
- Development of Cle Elum Hatchery spring chinook supplementation
- Yakima Basin – in process of implementing for coho and fall chinook
- Focus on protection and restoration of habitat
- Intent to expand supplementation into Klickitat for spring chinook and steelhead

YKFP Facilities - Klickitat

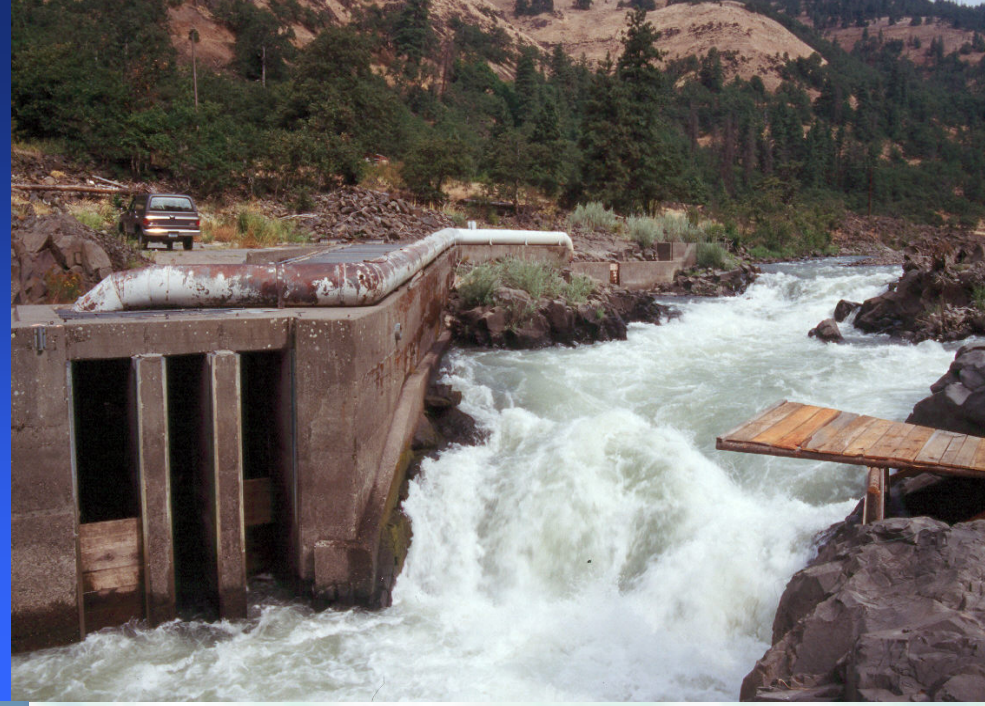


Klickitat Facilities

Transferred to Yakama Nation

on

October 1, 2004



History of Transition Talks to Date:

1995 Tribal Recovery Plan – implement Klickitat portion of YKFP

1996 Tribal Council vote to pursue transfer

1998 letter from YN to WDFW began discussion

Establish working teams for:

- Personnel Strategy
- Funding Strategy
- Real Estate Strategy (Hatchery, Lyle Falls, Castile Falls)

2003 MOU between YN and WDFW expressing intent towards October 2004 transfer was signed

NMFS brought into discussion for Mitchell Act Funding.

Klickitat Hatchery Design and Construction

- Transition to YKFP Supplementation Facility
- Develop increased and secure water delivery system
- Construct on-site housing

Klickitat Fisheries Project

Proper Broodstock Collection

Natural Rearing Techniques

Increased Adult Returns for:

Ceremonial Harvest
Subsistence Harvest
Commercial Harvest
Natural Production
Nutrient Cycle

Key Hatchery Reform Recommendations

- Random, representative broodstock selection
- local broodstock
- low densities
- use natural broodstock if possible
- careful spawning and rearing protocols

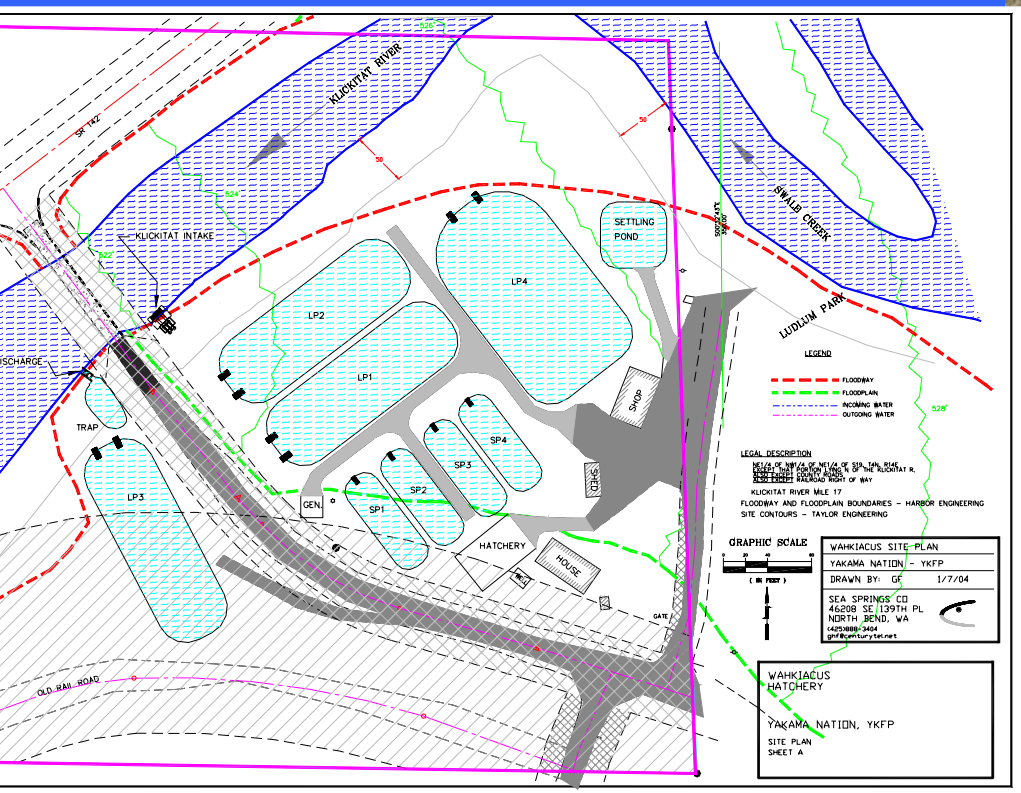
Hatchery Water Supply

- Waterline Replacement
- Spring Water Intake Reconstruction
- Power Generation

Wahkiacus Hatchery

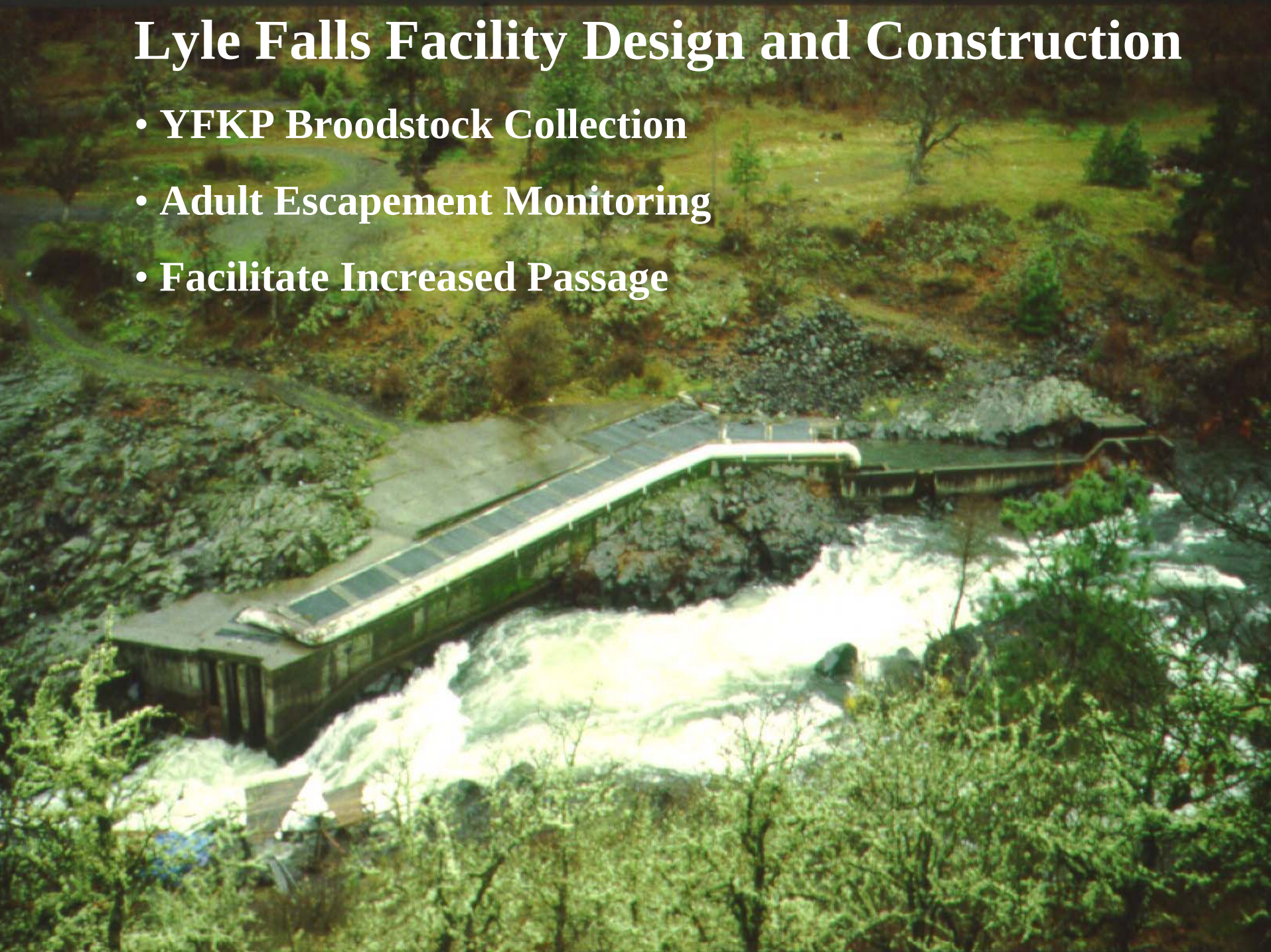
&

Acclimation Facility



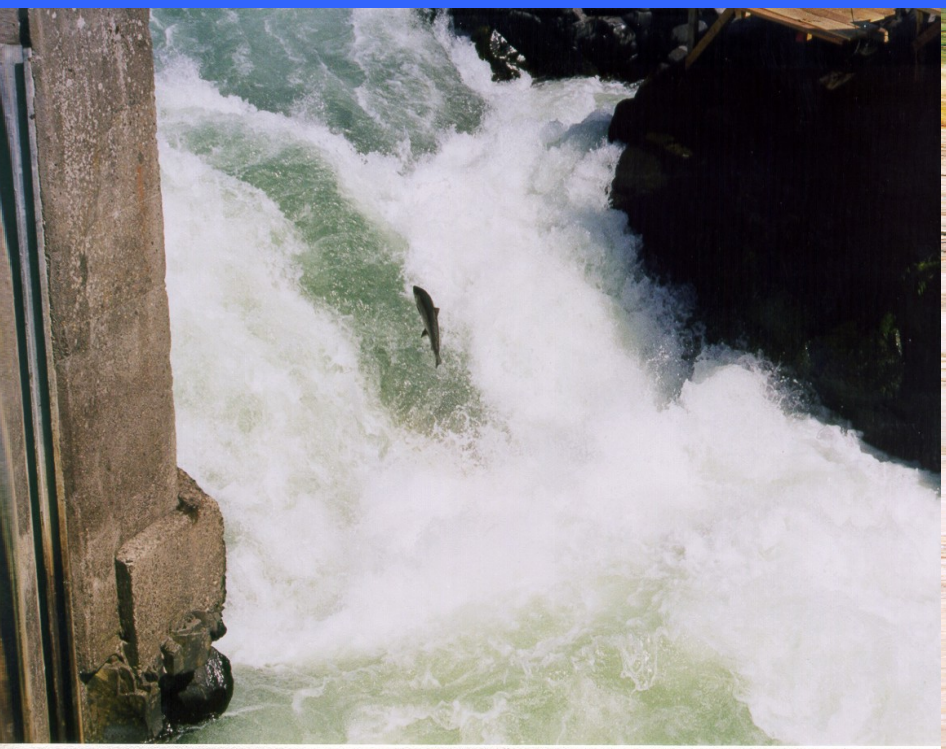
Lyle Falls Facility Design and Construction

- YFKP Broodstock Collection
- Adult Escapement Monitoring
- Facilitate Increased Passage

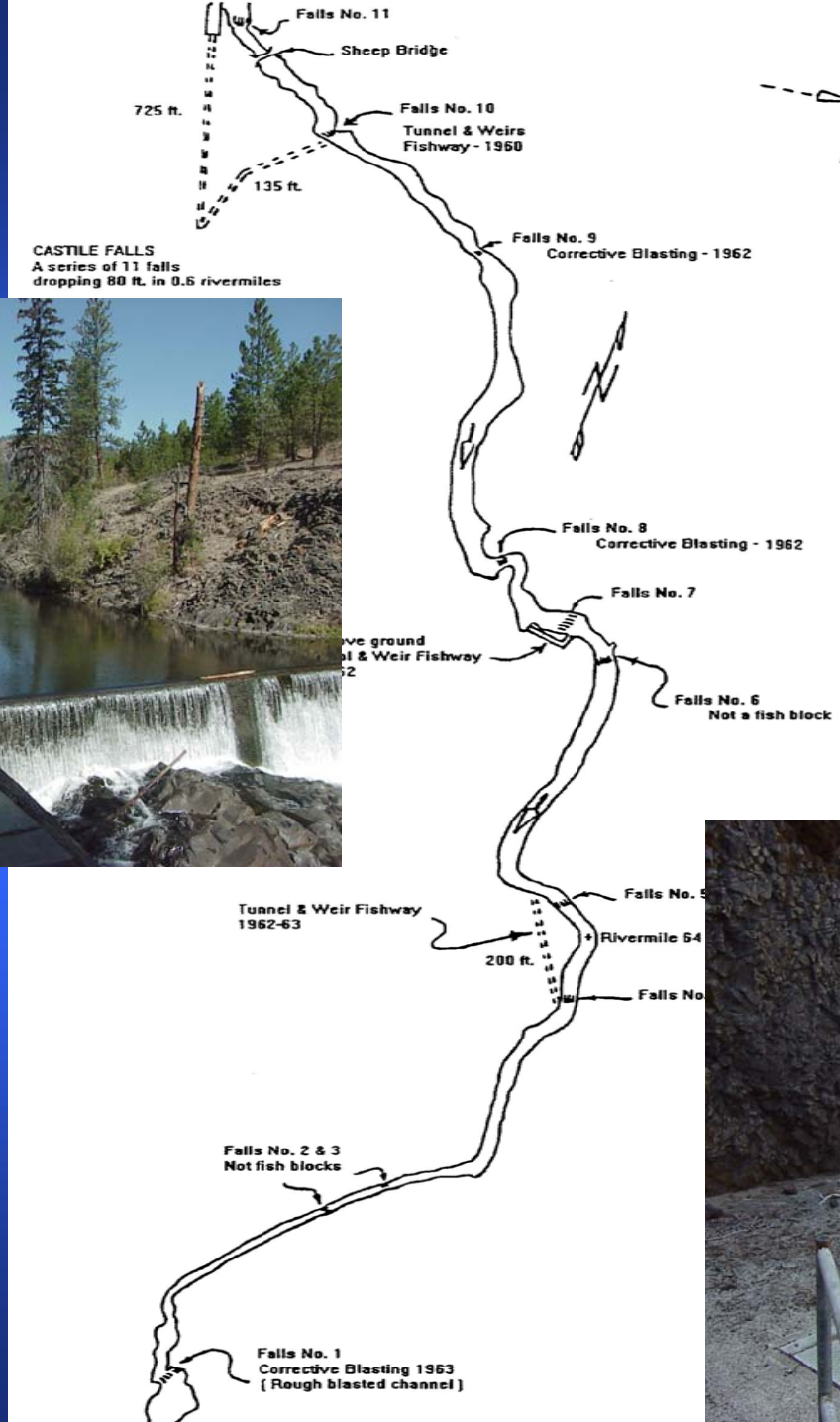


Lyle Falls Fishway

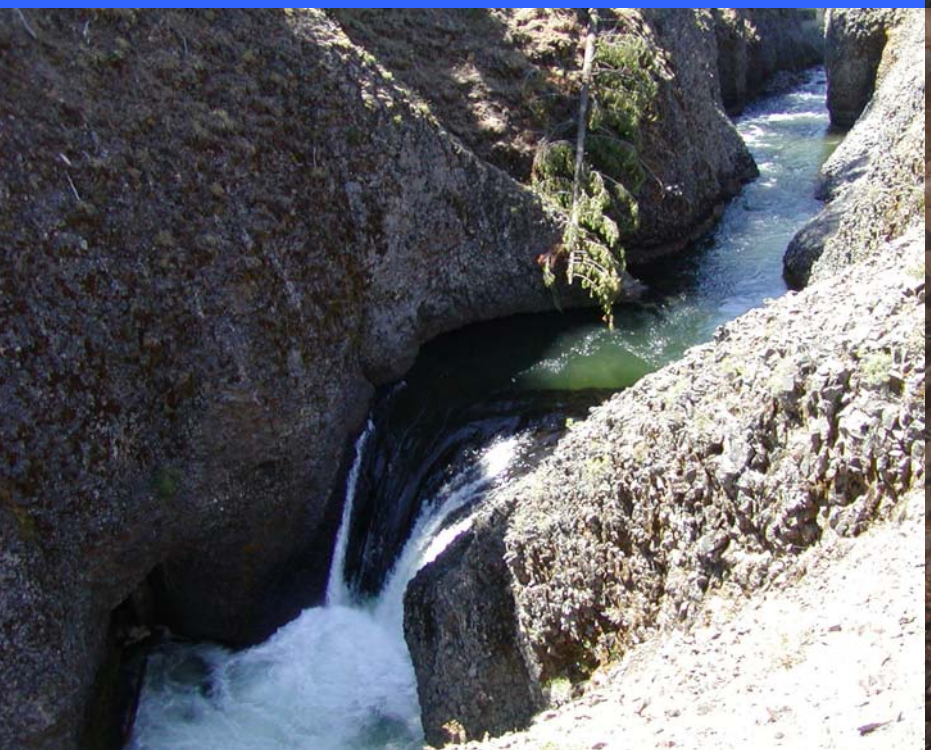
- Entrance
- Exit
- Auxiliary Water Supply
- Adult Enumeration



Castile Falls Fishway



Castile Falls 10/11 Fishway



Castile Falls 4/5 Fishway

YKFP Monitoring & Evaluation

- Population Monitoring
- Habitat Inventories
- EDT Modeling

Klickitat EDT Results: Spring Chinook Habitat

Potential Restoration Benefit

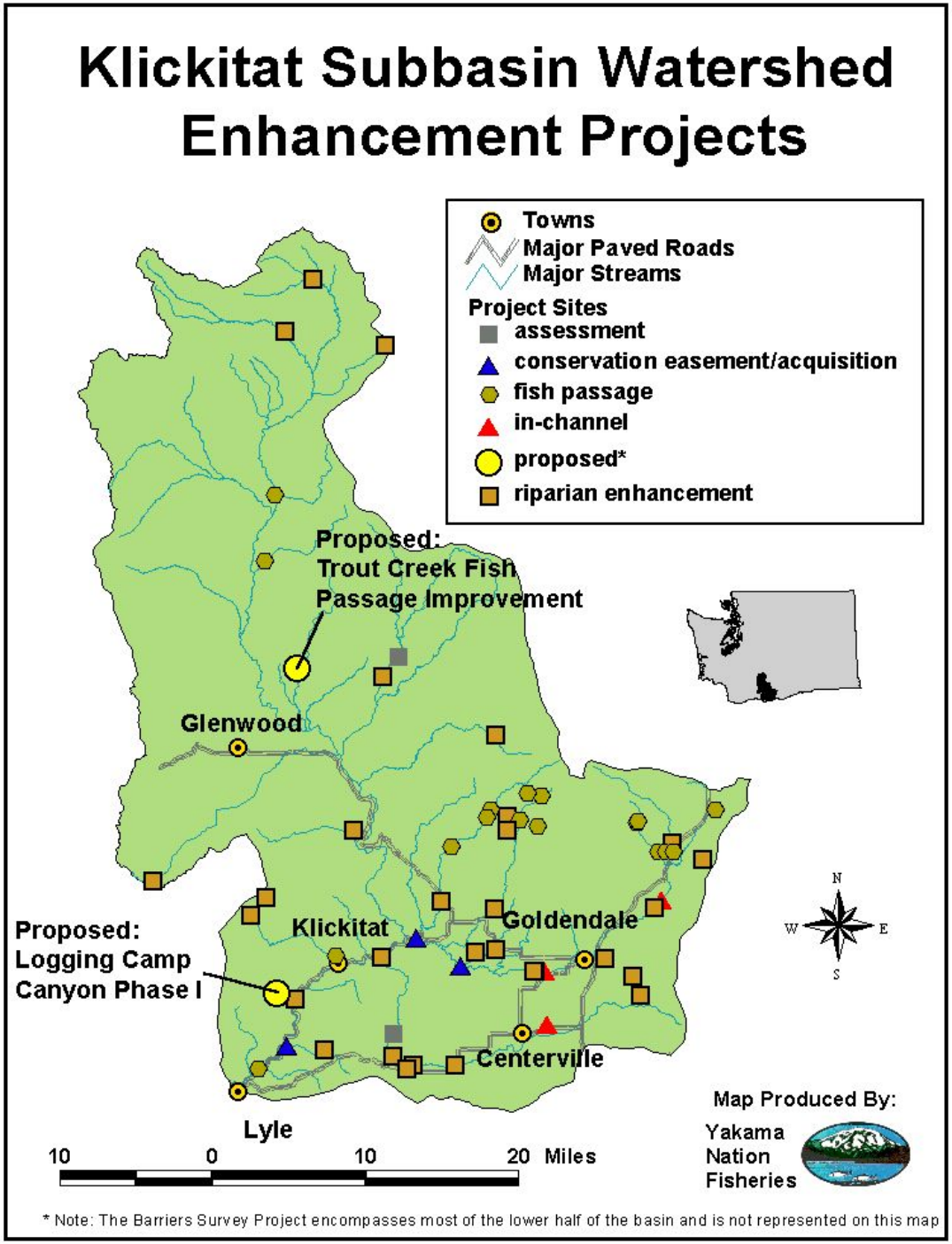
- High
- Moderate-high
- Moderate-low
- Low

N

5 0 5 10 15 Miles

created by:

Klickitat Subbasin Watershed Enhancement Projects



Surveyors Creek Culvert Replacement

Future Actions

- Master Plan Review
- Identify NEPA issues:
- Incorporate Master Plan Goals into:
  - Klickitat Subbasin Plan
  - US v Oregon - CRFMP planning
  - Klickitat Hatchery Transition
  - HGMP/APRE processes

Benefits

- Ecosystem that sustains abundant, productive, and diverse community of Fish and Wildlife
- Mitigation for hydrosystem impacts
- Sufficient populations for abundant tribal & treaty harvest and non-tribal harvest
- Recovery of listed fish affected by hydrosystem
- YKFP consistent with artificial production policies