

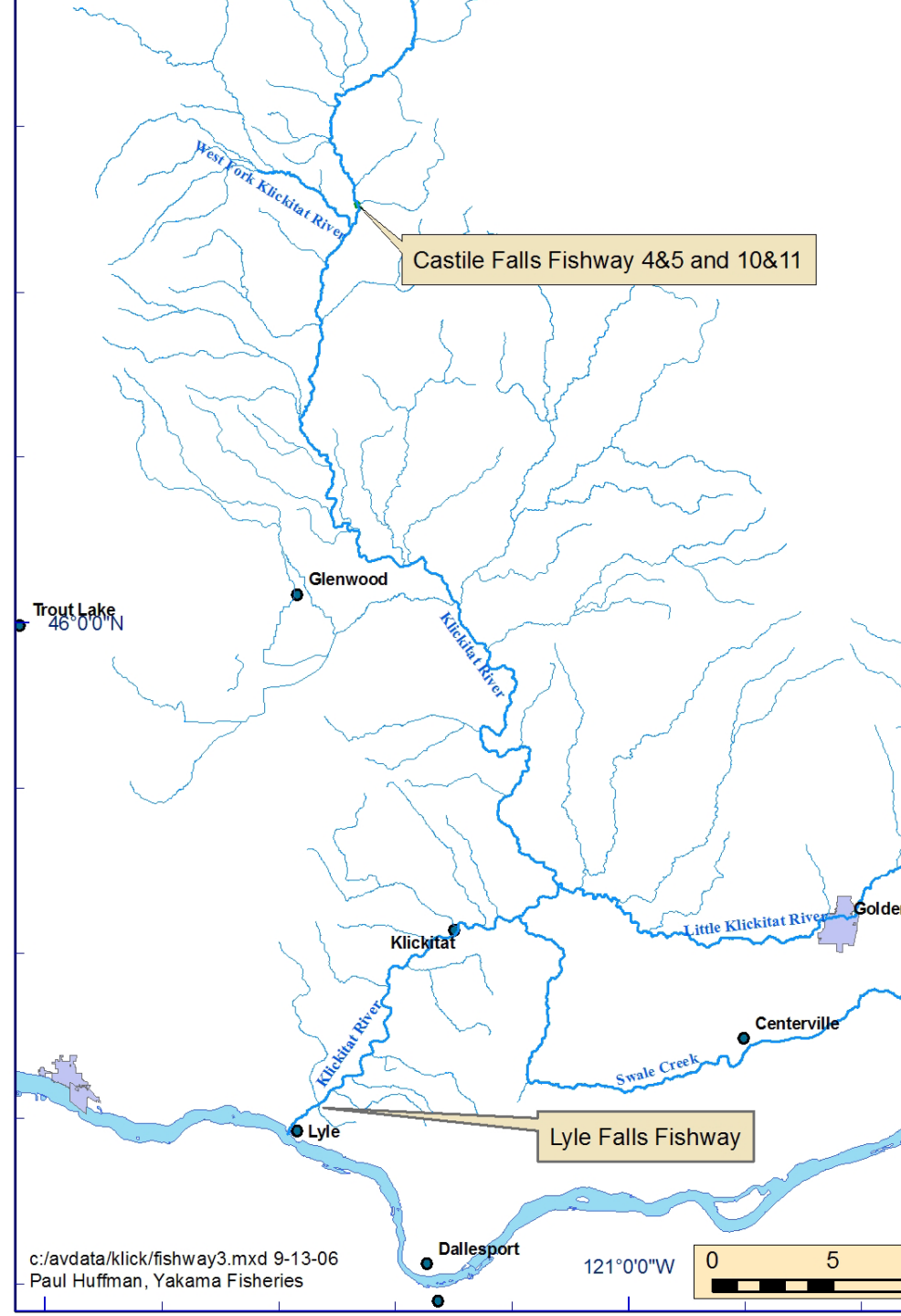
# Klickitat Fishway

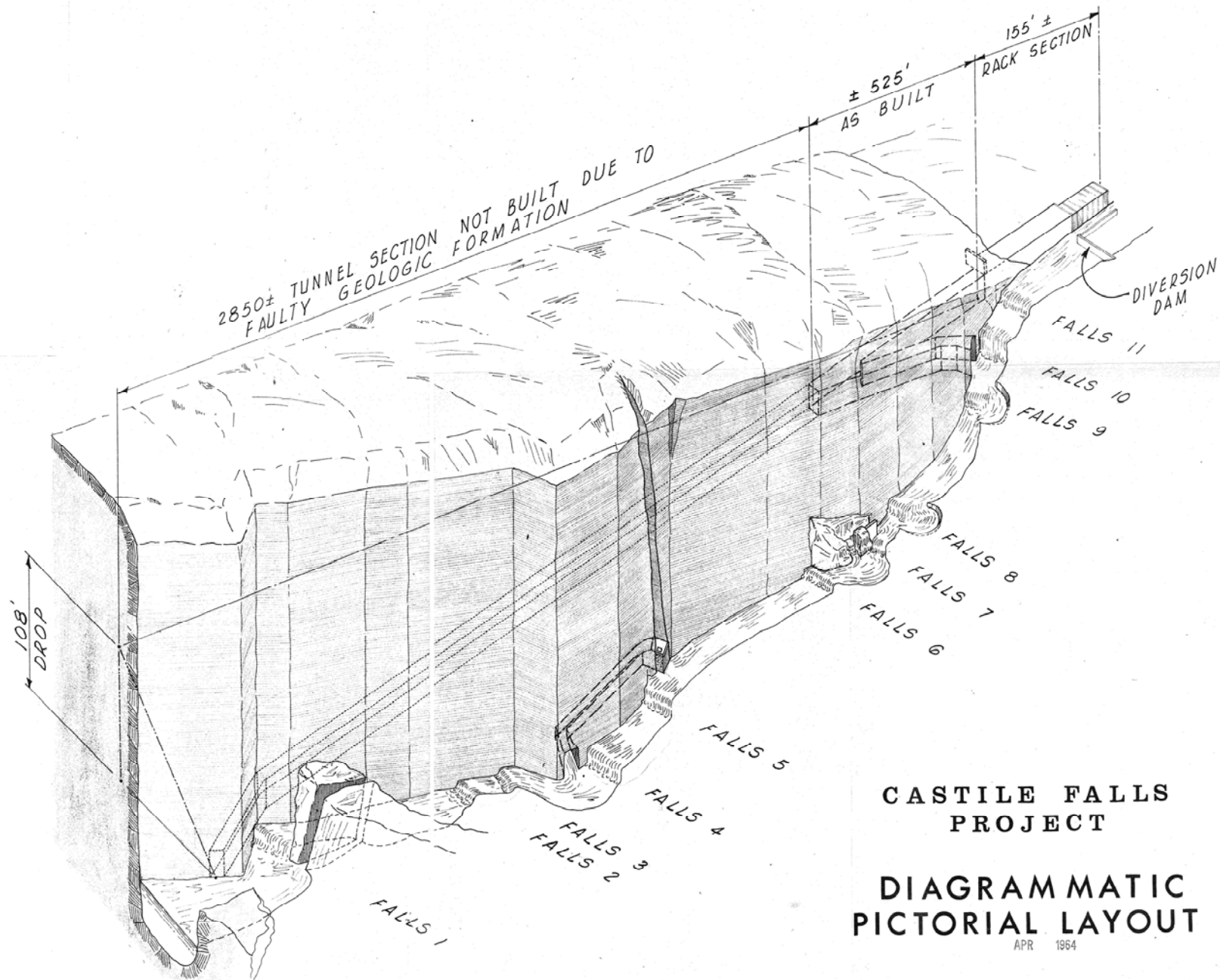
## Project

*One Down,  
One to Go!*

Bill Sharp

Yakama Nation  
Fisheries - YKFP

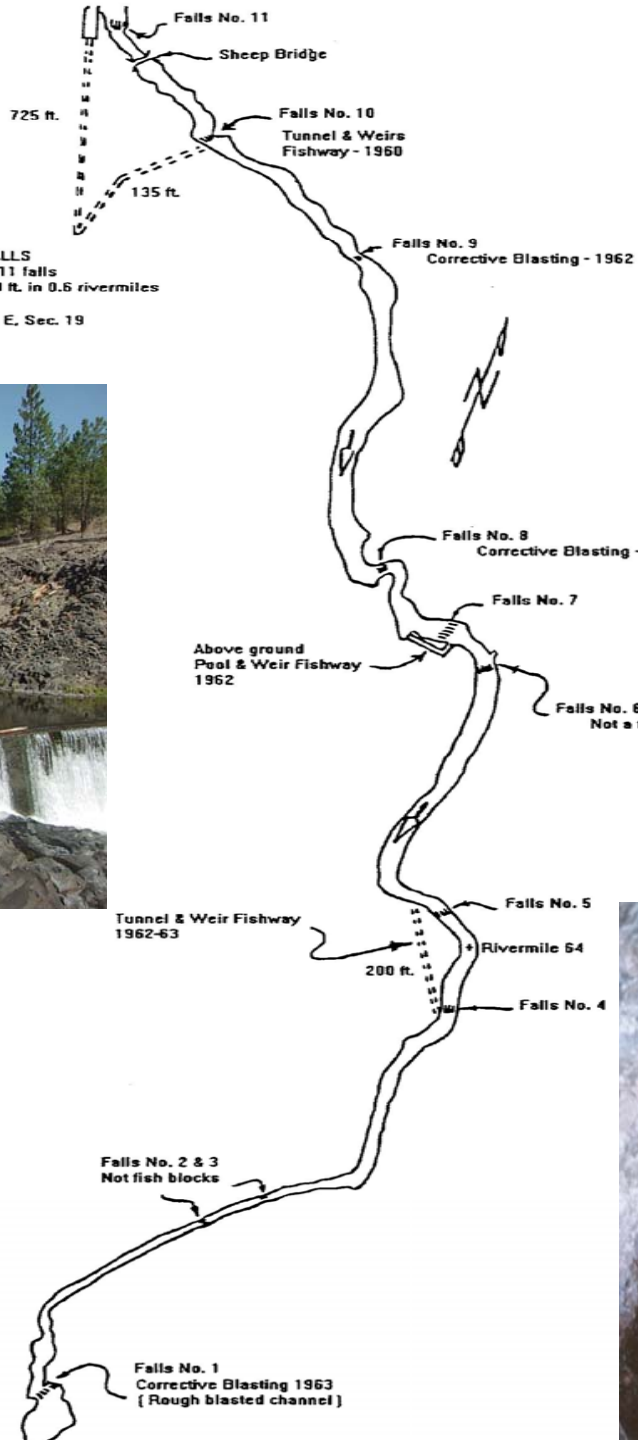




**CASTILE FALLS  
PROJECT**

**DIAGRAMMATIC  
PICTORIAL LAYOUT**

APR 1964



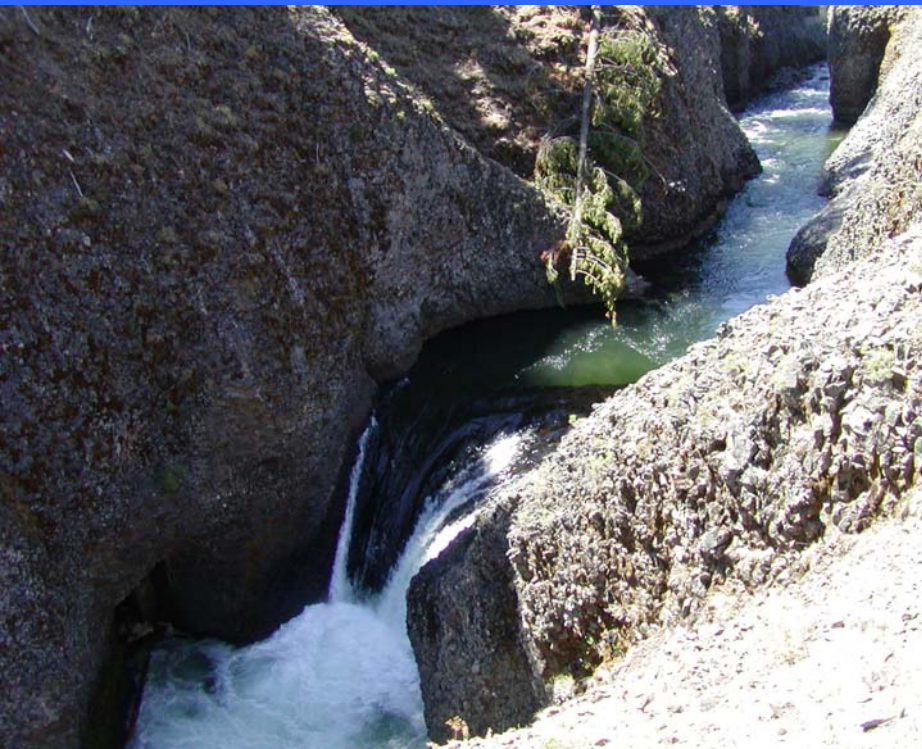
# Castile Falls Fishway

## Falls #10

**CASTILE FALLS**  
A series of 11 falls  
dropping 80 ft. in 0.6 rivermiles  
T 9 N, R 13 E, Sec. 19

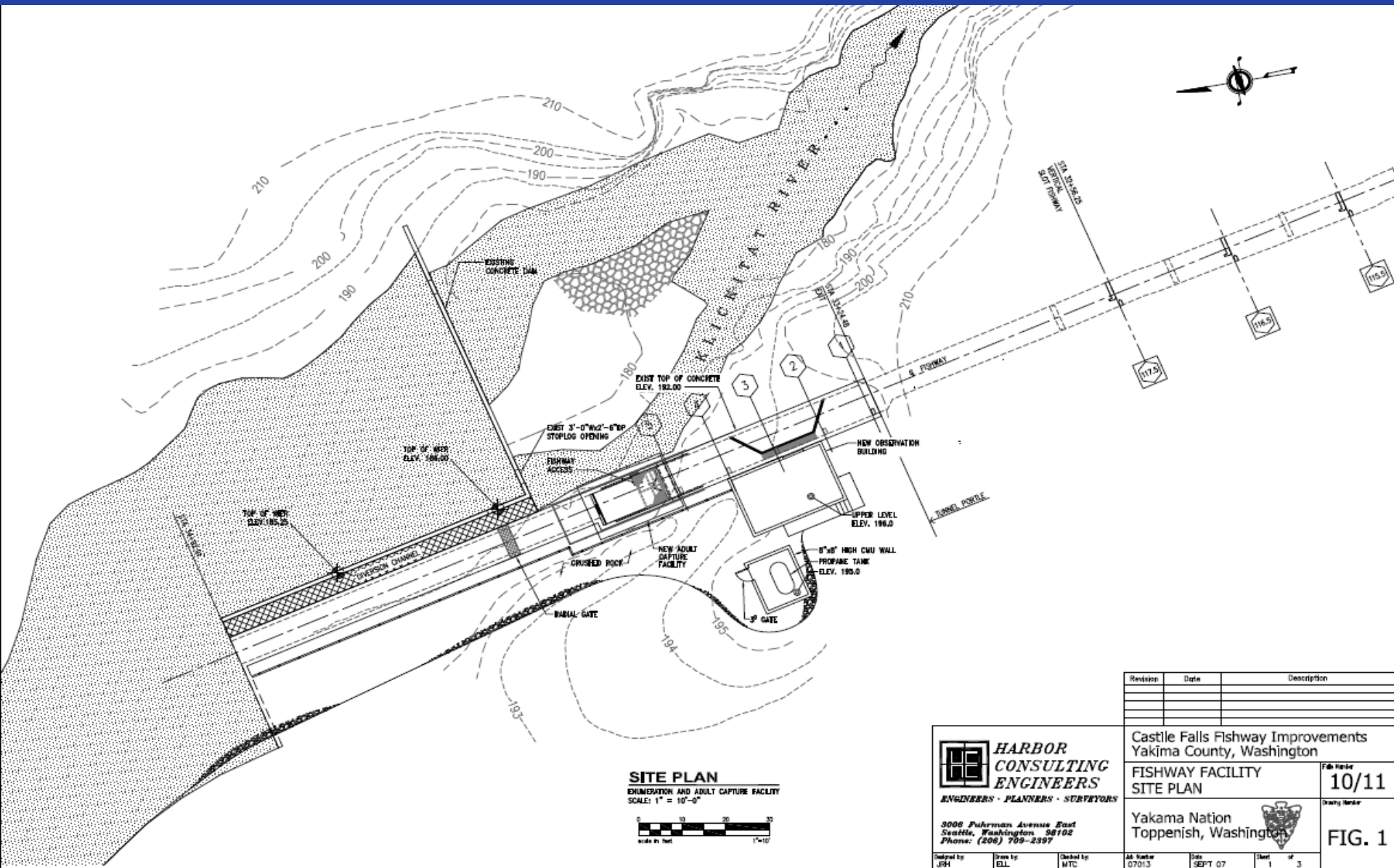


# Castile Falls 10 Fishway Completed upgrades



# Castile Falls 10 Fishway

## Proposed Counting Station



**SITE PLAN**  
 ENUMERATION AND ADULT CAPTURE FACILITY  
 SCALE: 1" = 10'-0"



| Revision | Date | Description |
|----------|------|-------------|
|          |      |             |
|          |      |             |
|          |      |             |

**HARBOR CONSULTING ENGINEERS**  
 ENGINEERS • PLANNERS • SURVEYORS  
 3006 Pulman Avenue East  
 Seattle, Washington 98102  
 Phone: (206) 709-2397

Castile Falls Fishway Improvements  
 Yakima County, Washington

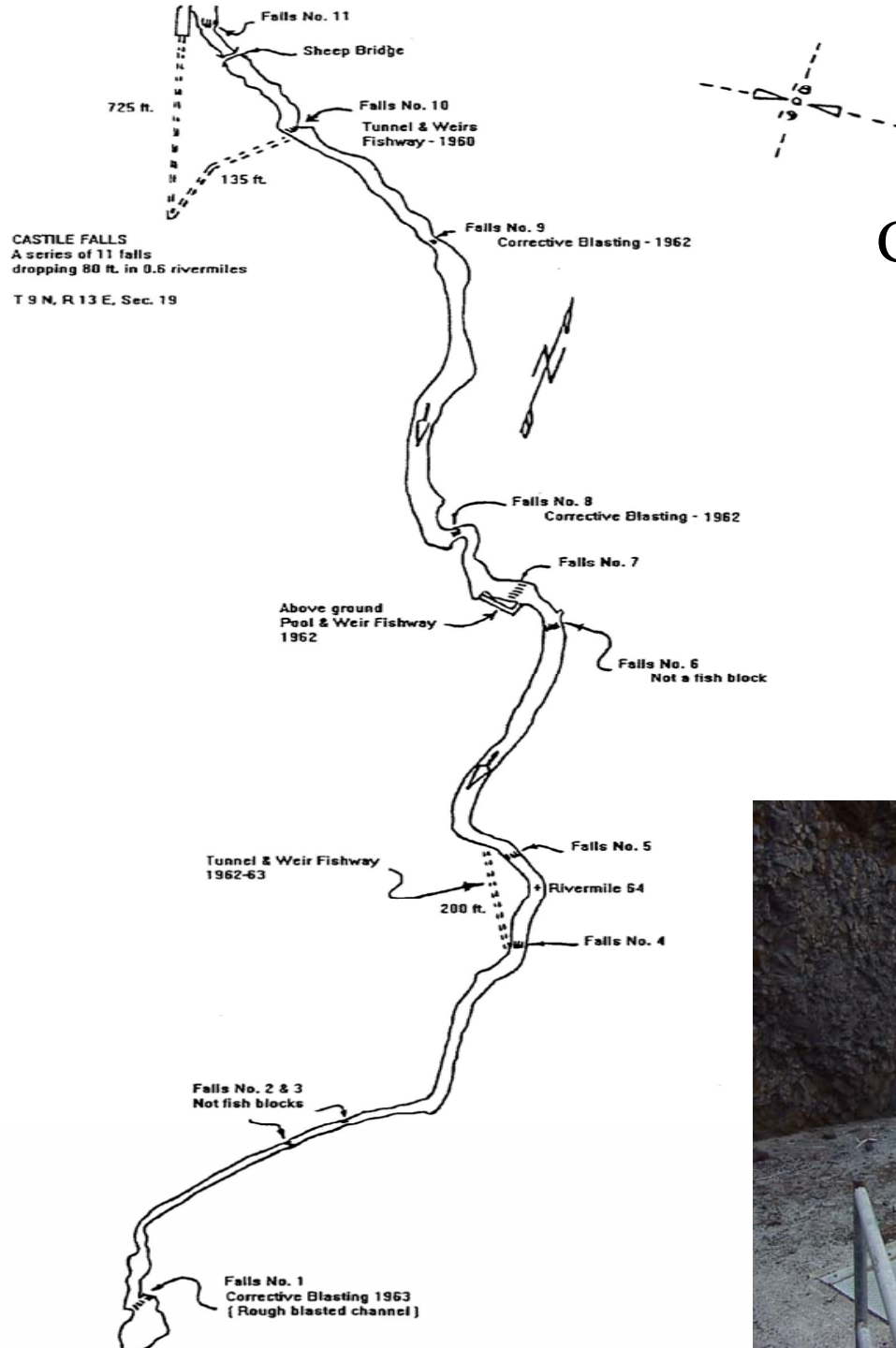
**FISHWAY FACILITY SITE PLAN**

Yakama Nation  
 Toppenish, Washington

File No: **10/11**  
 Sheet 1 of 3

Drawn by: JPH  
 Check by: ELL  
 Date: SEPT 07

**FIG. 1**



# Castile Falls Fishway

## Falls 4/5





## **Castile Falls 4/5 Fishway Safety Walkway**

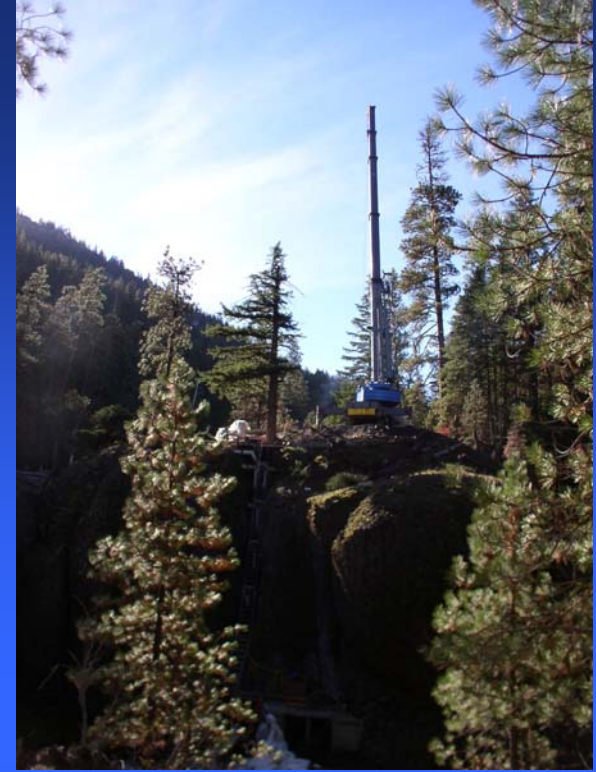
# Castile Falls 4/5 Fishway

Challenging working  
conditions





# Castile Falls 4/5 Fishway Completed Upgrades



# Lyle Falls Fishway No.5

## Lyle Fall Fishway Reconstruction

- Current Conditions
- Proposed Design & Benefits

Constructed 1952 – 1955

150-feet in length

13 vertical slot fishway

Falls height ~ 17 feet



# Lyle Falls Fishway - Current Condition

- Poorly Positioned Fishway Entrance
- Inadequate Attraction Water Supply
- Over-energized Resting Pools
- Inadequate Low Flow Water Supply
- Gravel-impacted Fishway Exit Channel



# Maximum and Minimum Passage Flows at Lyle Falls over Three Migration Pathways:

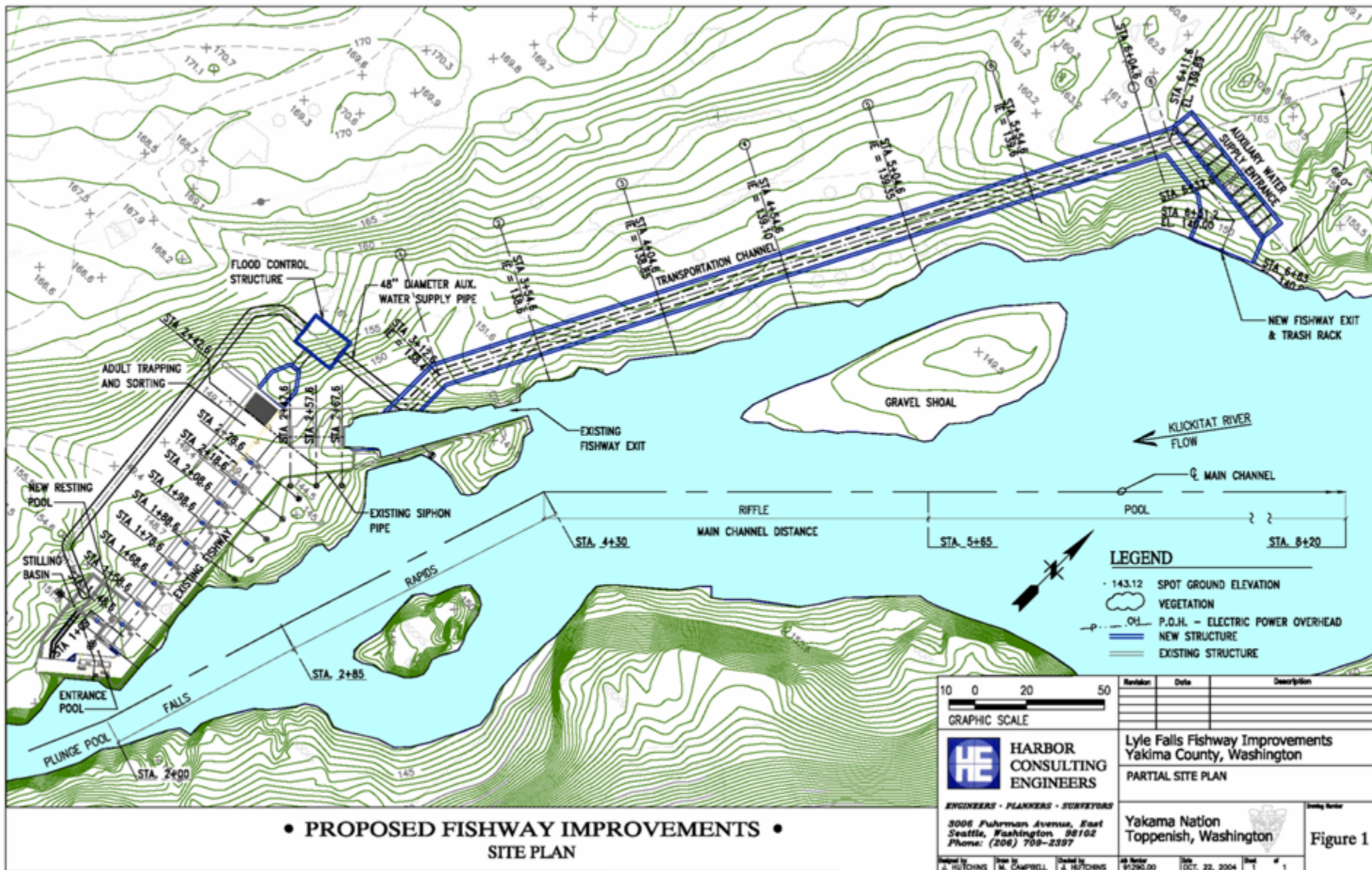
**Jumping the Falls**

**Ascending the Existing Fishway**

**Ascending the Proposed Fishway**

|                            | Natural Falls | Existing Fishway | Proposed Fishway |
|----------------------------|---------------|------------------|------------------|
| Lower Flow Threshold (cfs) | 1,000         | 900              | 500              |
| Upper Flow Threshold (cfs) | 5,000         | 2,000            | 5,000            |

# Proposed - Lyle Falls Fishway & Collection Facility





**HARBOR  
CONSULTING  
ENGINEERS**

3006 Fuhrman Avenue, East  
Seattle, Washington 98102  
Phone: (206) 708-2397

Lyle Falls Fishway Improvement

Sketch of Modified Fishway

Yakama Nation  
Toppenish, Washington



# **Project Benefits:**

**Design Fishway to meet Federal  
& State Passage Criteria**

**Effectively Monitor Klickitat  
Basin Escapement**

**Increased Passage of Klickitat  
Anadromous Stocks**

**Implement Hatchery Reform  
Measures - proper broodstock  
collection**

