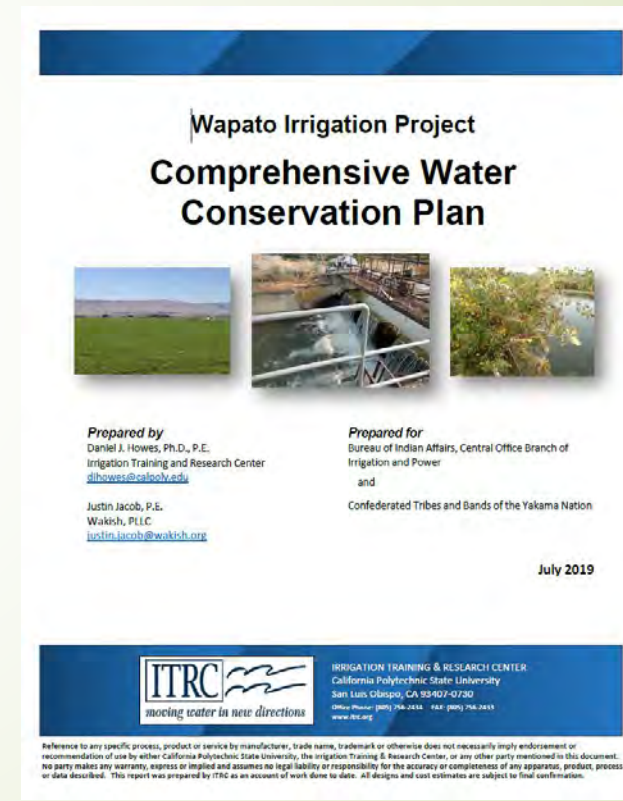
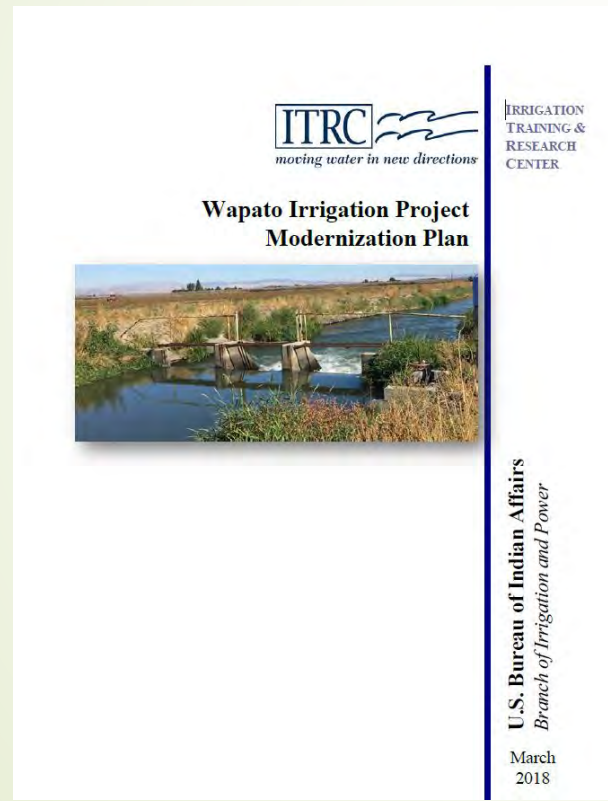


# Wapato Irrigation Project: New - Toppenish Creek Diversion

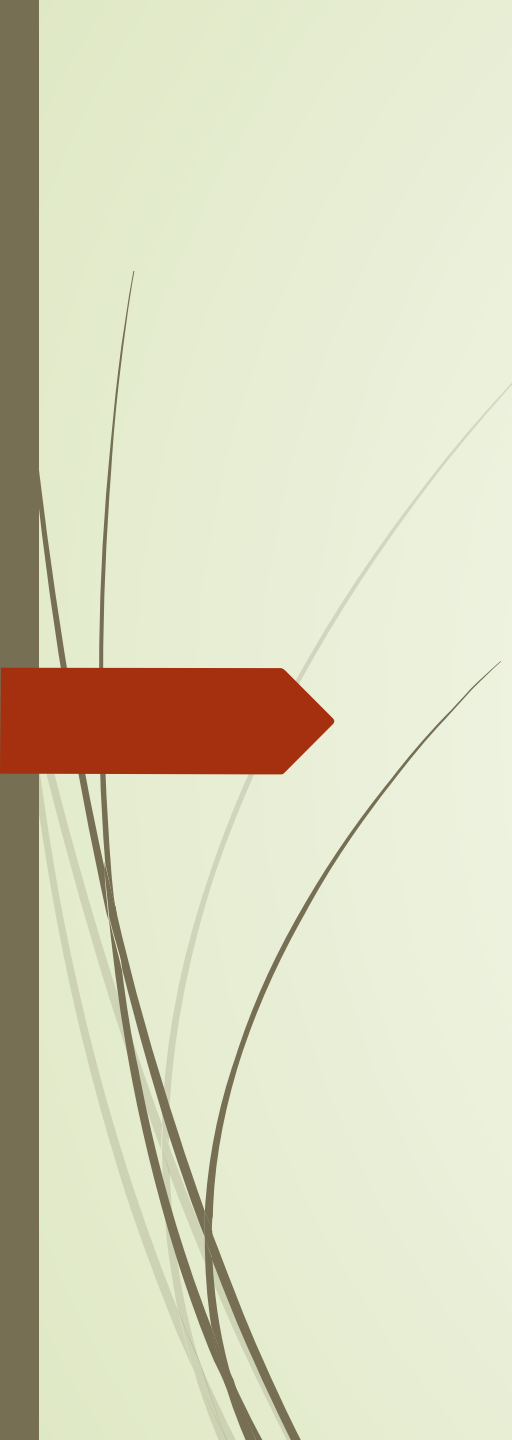
An example of how the Integrated Plan is working and improving the Yakima Basin

Richard Dills, S.E., Manager – Yakama Nation Engineering

# HOW DID THE IDEA FOR A NEW DIVERSION AT TOPPENISH CREEK UNIT TWO CANAL ORIGINATE?



THESE TWO DOCUMENTS WERE FUNDED BY THE BIA AND THE WASHINGTON STATE DEPARTMENT OF ECOLOGY GRANT C1700079.



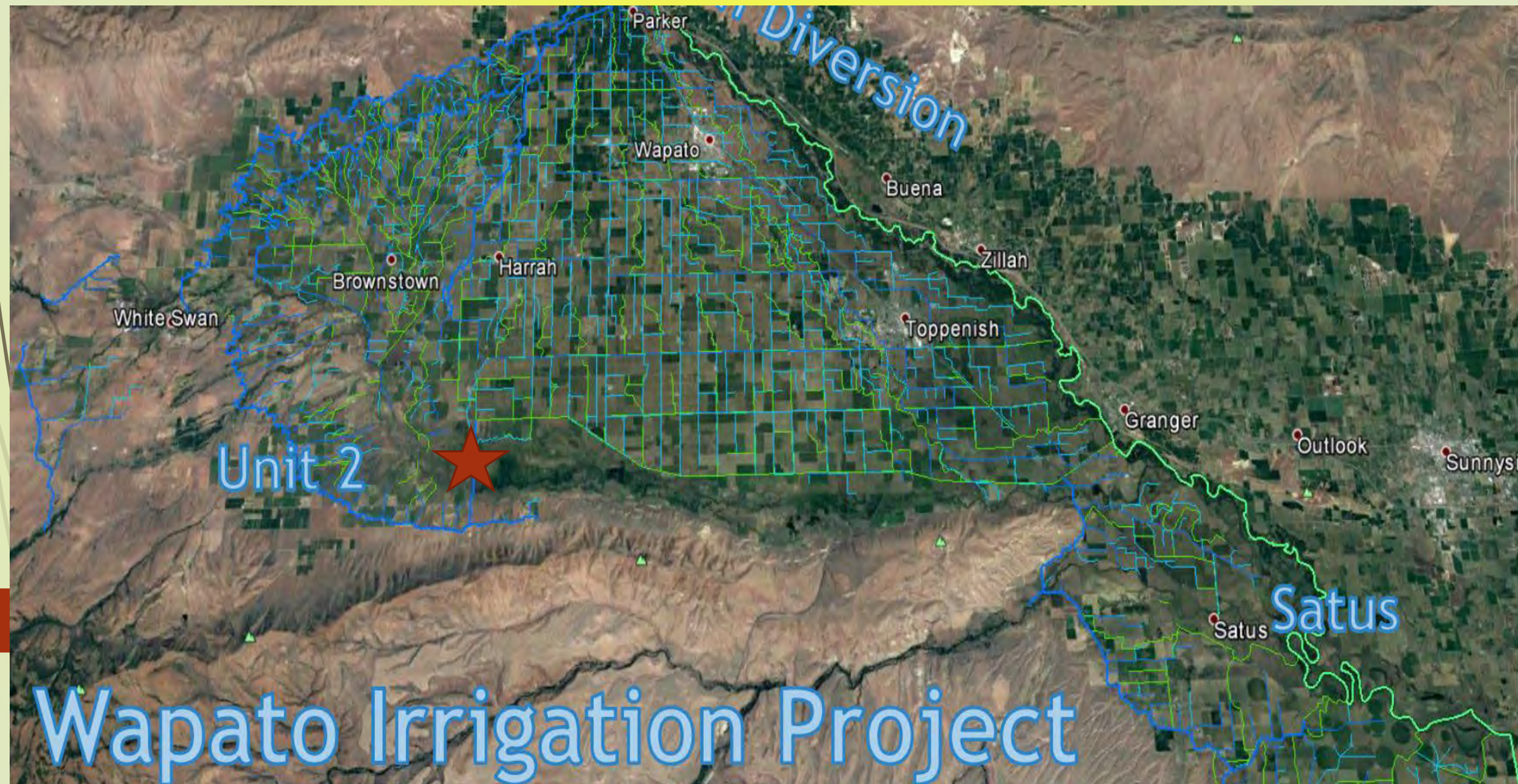
“...An estimated 165,000 AF (see Chapter 5) is available for recovery with full implementation of the *WIP Modernization Plan...*”

The above excerpt from the ITRC Conservation Plan should be cause for excitement and celebration.



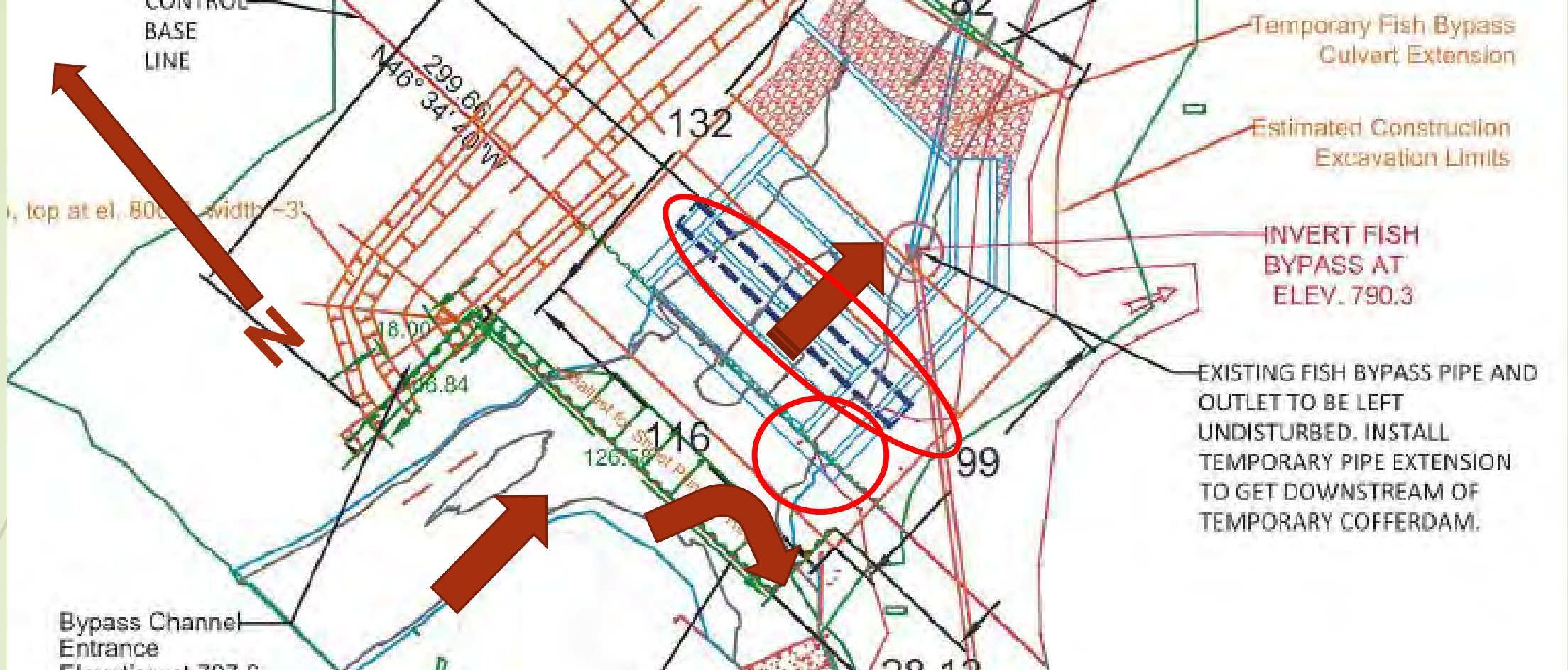






# Wapato Irrigation Project





## TYPE SELECTION & PROJECT DEVELOPMENT

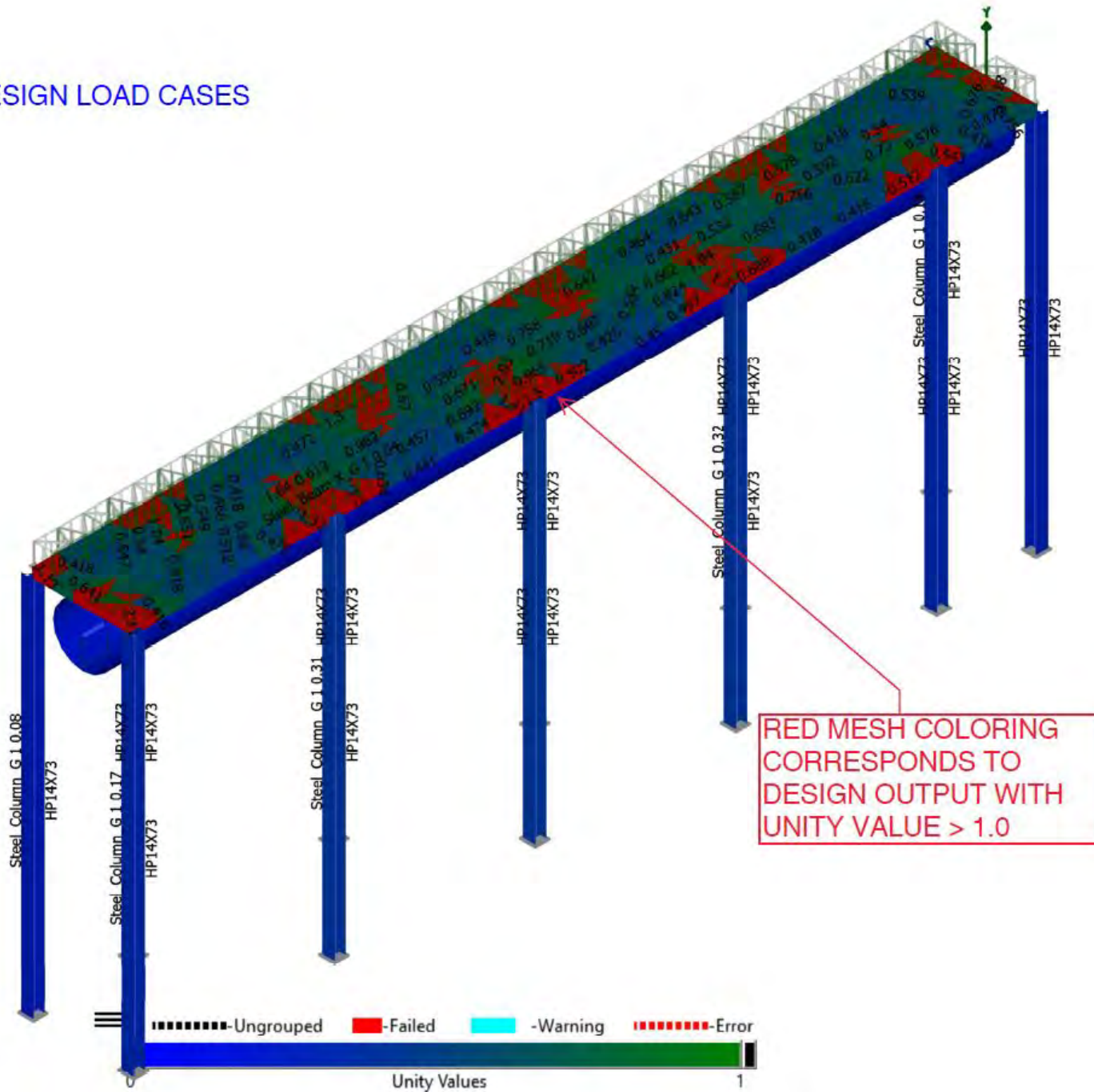
### ALTERNATIVES CONSIDERED:

- I. A SERIES OF CASCADING BOULDERS
- II. A SERIES OF CASCADING BOULDERS WITH A CONCRETE LINED CHANNEL
- III. A SERIES OF CONCRETE WEIRS – TOPPED WITH SMOOTH RADIUS STAINLESS STEEL IN A CONCRETE LINED CHANNEL COMBINED WITH A RADIAL GATE FOR FLUSHING FLOW. RADIAL GATE ALLOWS BETTER MANAGEMENT OF FLOW THROUGH A SCADA SYSTEM



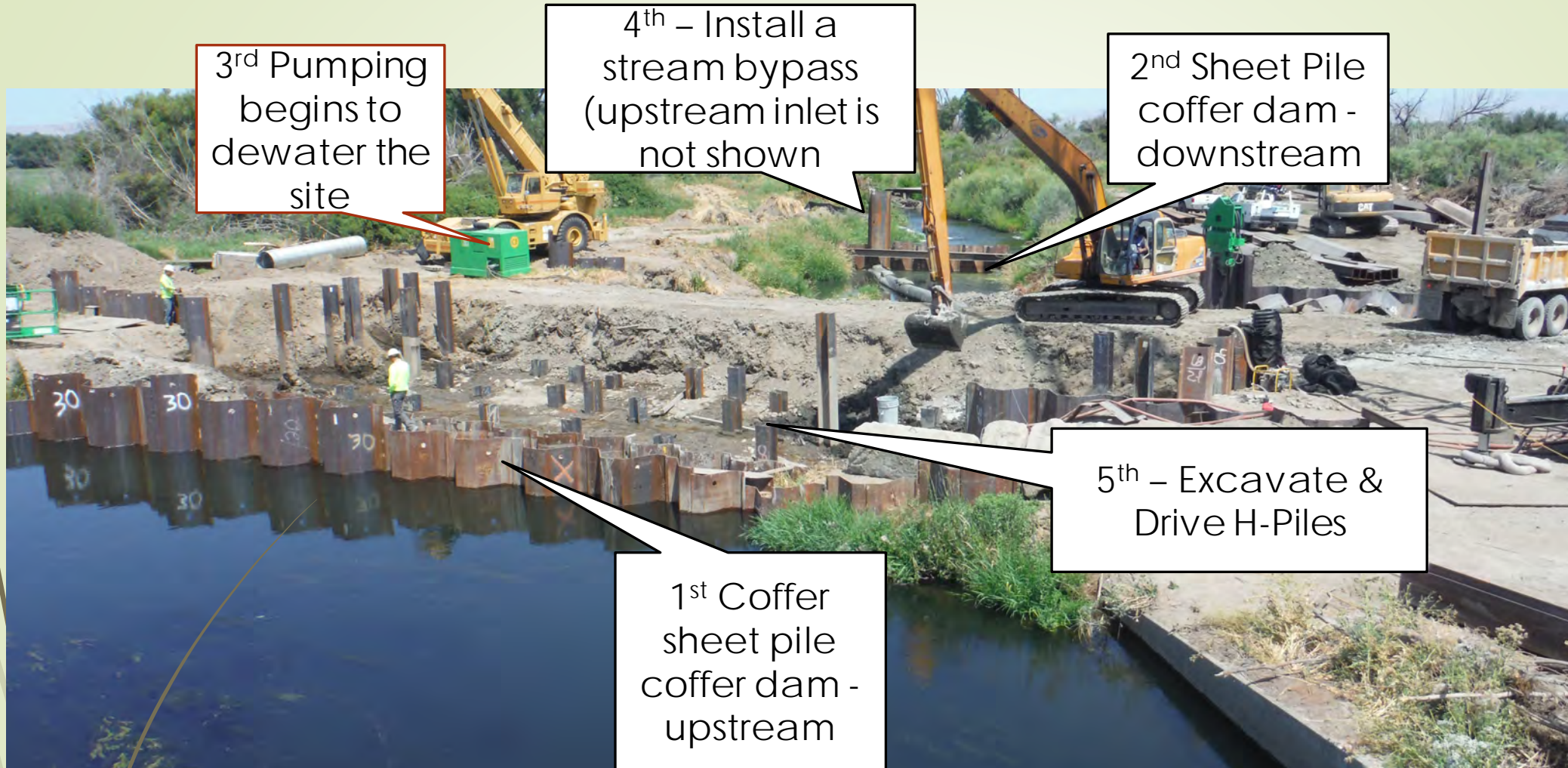


## ALL DESIGN LOAD CASES



STRUCTURAL  
MODELING OF  
THE INITIAL  
SIPHON PIPE  
THAT IS  
INSTALLED FOR  
FUTURE  
CONNECTION  
UNDERNEATH  
THE NEW  
DIVERSION.





**NOW LET'S TAKE A LOOK AT THE JOBSITE  
AND GO THROUGH A CONSTRUCTION  
SEQUENCE**





WHILE ALL OF THE PRIOR STEPS ARE UNDERWAY: FABRICATE  
A 6 FOOT DIAMETER FUTURE SIPHON TO PLACE BENEATH THE  
NEW DIVERSION





**SPECIAL THANKS TO THE  
FOLLOWING:**

**ERNIE LOPEZ – PROJECT ENGINEER  
& RESIDENT ENGINEER**

**JUSITN JACOB & DAVE LINDE:  
WAKISH ENGINEERING: Hydraulic  
Check, Feasibility Analysis and  
Biological Assessment.**

**Jeff Harlan, Dave Fischer & Pete  
Plant of BIA**

**Yakama Nation Cultural  
Resources – CR Assessment**

**GN Northern, Imran Magsi – Soils  
Engineering & Structural Design  
Check**

**State of Washington Department  
of Ecology – Grant Funding \$\$\$'s**



# QUESTIONS?