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August 8, 2023

### **MEMORANDUM**

**TO: Council Members**

**FROM: Elizabeth Osborne**

**SUBJECT: Douglas County Public Utility District Presentation**

### **BACKGROUND:**

**Presenter:** Gary Ivory, General Manager, Douglas County PUD

**Summary:** Mr. Ivory will provide an update to the Council on the PUD's operations and its renewable hydrogen project.

**Background:** Douglas County PUD serves approximately 15,200 electric customers in the Wenatchee, Washington area. The PUD was formed in 1936 and began operations of electric facilities in 1945. It shares in the output from several generating facilities, including Rocky Reach Hydroelectric Project and the majority of the Wells Hydroelectric Project, and also purchases power from Bonneville.

The PUD began a 5 MW pilot renewable hydrogen project in 2021, which was designed to provide flexibility at the Wells Project. In 2023, Douglas County PUD entered into phase two of the renewable hydrogen project, expected to be operational in summer 2024, which will add another 5 MW electrolyzer.

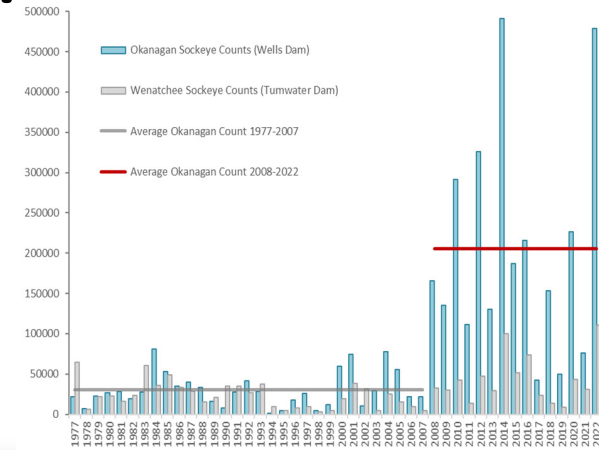
Gary Ivory joined Douglas County PUD in 1997 and became General Manager in 2017.

# Douglas County PUD Update



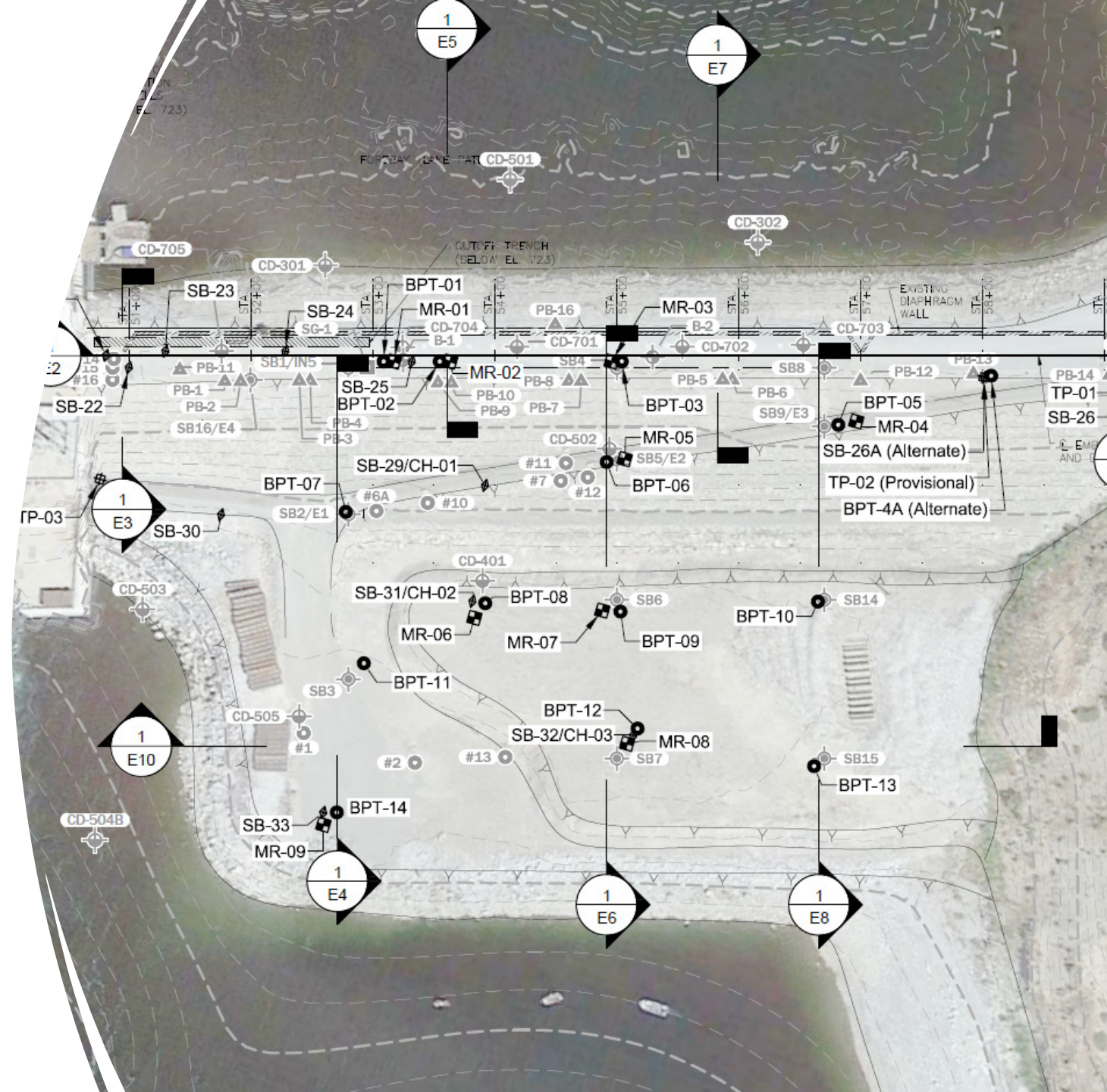
# Celebrate - Habitat Conservation Plans

- Highly Successful Survival
  - 93% project survival (reservoir, dam and tailrace)
  - >95% dam passage survival
- Modern – highly successful hatchery
- Successful Natural programs
  - Sockeye & White Sturgeon
- Support of re-introduction
- Orca Program
- Hydro allows successful programs



# East Embankment

- Dam Safety Drilling Program







# Wells Units



# Hydrogen Electrolyzer

## Proton Exchange Membrane (PEM)

### Pros:

- Efficient (80%)
- Fast response
- High purity
- High pressure operation

### Cons:

- High cost
- Require pure water
- Membrane wears out

