

Bateman Island Causeway Project & Yakima Basin Integrated Plan



YAKIMA BASIN
BUILDING A FUTURE FOR WATER, WILDLIFE
& WORKING LANDS



Lower River Focus

- Degraded summer habitat conditions (low flows and high water temperature)
- Changes to flows and water supply from upstream conservation measures
- Lower River Subgroup organized to identify ways to improve conditions
 - Water supply (KID focus)
 - Habitat (for all anadromous species)

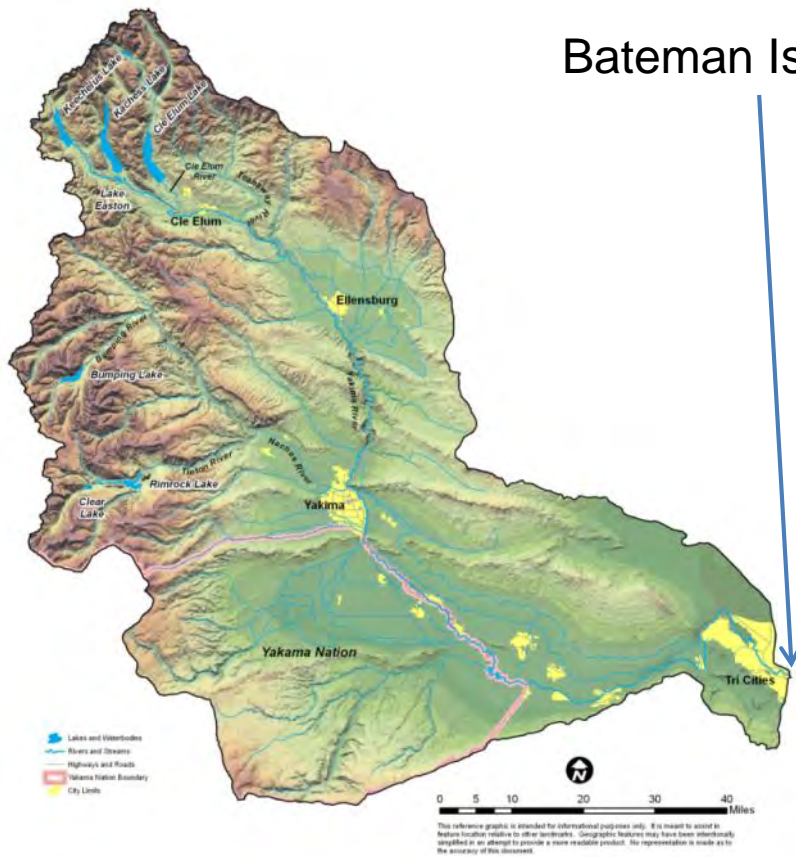
Lower River Habitat Impacts

- Upstream Migration – Major impact for adult salmonids
- Downstream Migration – Major impact for smolts
- Spawning – Impact for Fall Chinook

Lower River Actions

- Improve surface water temperature/habitat conditions
 - Bateman Island project
 - KID pilot groundwater recharge project near Chandler
- Other Habitat Enhancements
 - Potential measures being evaluated
- Enhance flows and water supply
 - Chandler Electrification (under discussion)
 - Other changes in water management (under discussion)

Gateway and Cornerstone



Recreation



Watchable Wildlife
Viewing Site



Previous Studies

- 1998, 2004, 2011, 2014
 - Bureau of Reclamation, U.S. Army Corps of Engineers, Benton Conservation District, Mid-Columbia Fisheries Enhancement Group and Benton Conservation District
 - High temperatures
 - Open Causeway
 - Temps reduced with flow on south side of Bateman Island



Bateman Island Causeway Project

Phase 1

**Mid-Columbia Fisheries Enhancement
Group (MCFEG) & Benton Conservation
District (BCD) 2011-2015**

**Develop design alternatives that improve
migratory conditions for salmon**

Phase 2

**Washington Department of Fish and
Wildlife (WDFW) & others**

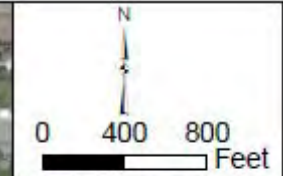
Implement Causeway Project



Bateman Island



Project Location



YAKIMA
RIVER

COLUMBIA
RIVER / McNARY
POOL (NORMAL POOL
EL 344 FT NAVD)

BATEMAN
ISLAND

YAKIMA
RIVER
DELTA

COLUMBIA
PARK
MARINA

CAUSEWAY

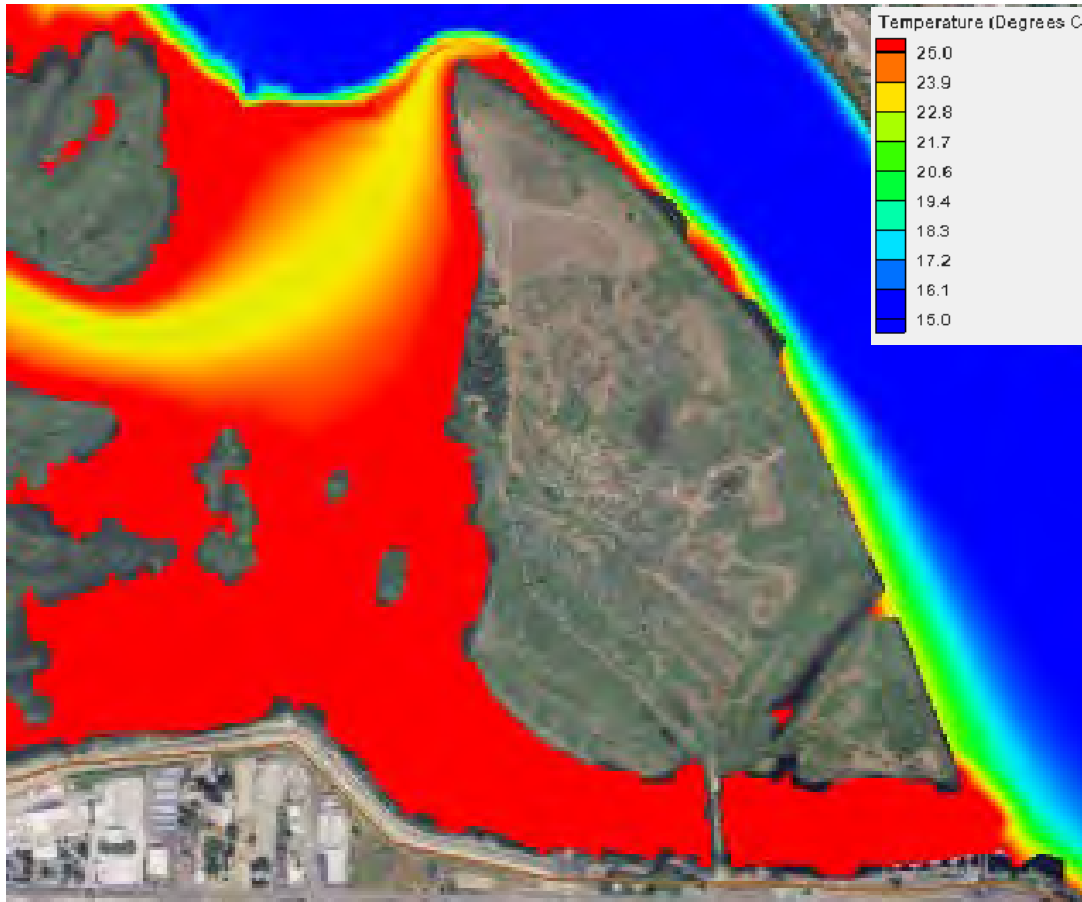
Mid-Columbia Fisheries Enhancement Group
Bateman Island

Causeway Concept Design Project
Figure 1.1
Project Location Map



Orthophoto Source: Google Earth

RESULTS



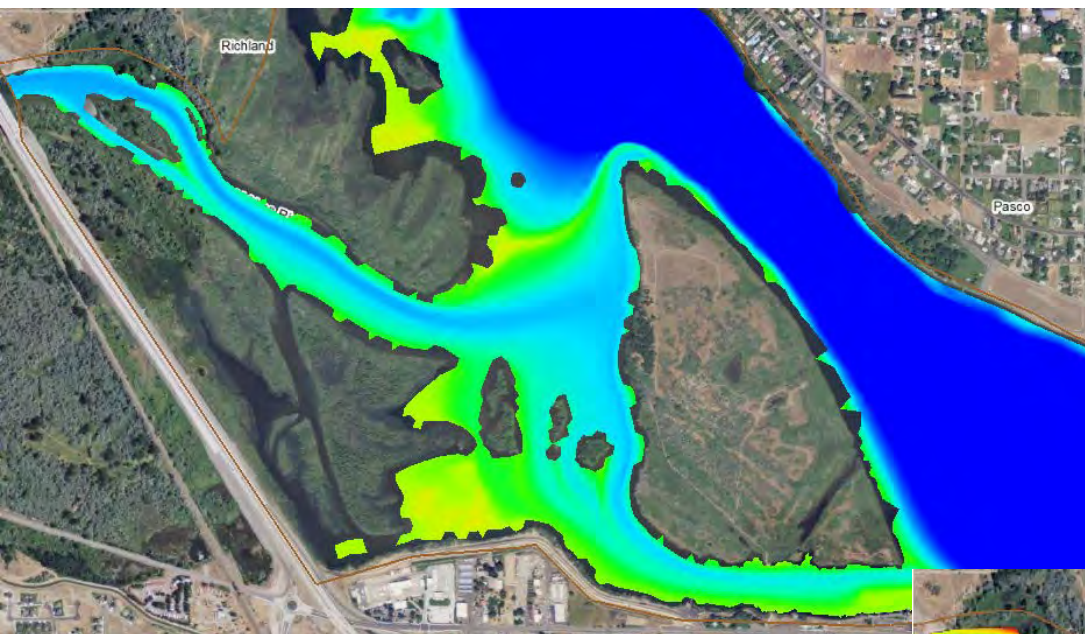
**Temperatures of 77-86 degrees
= thermal block to late
migrating salmon**

**Back water area is ideal
habitat for non-native
predatory fish**

**Causeway is a complete
barrier to fish passage and
river flow**

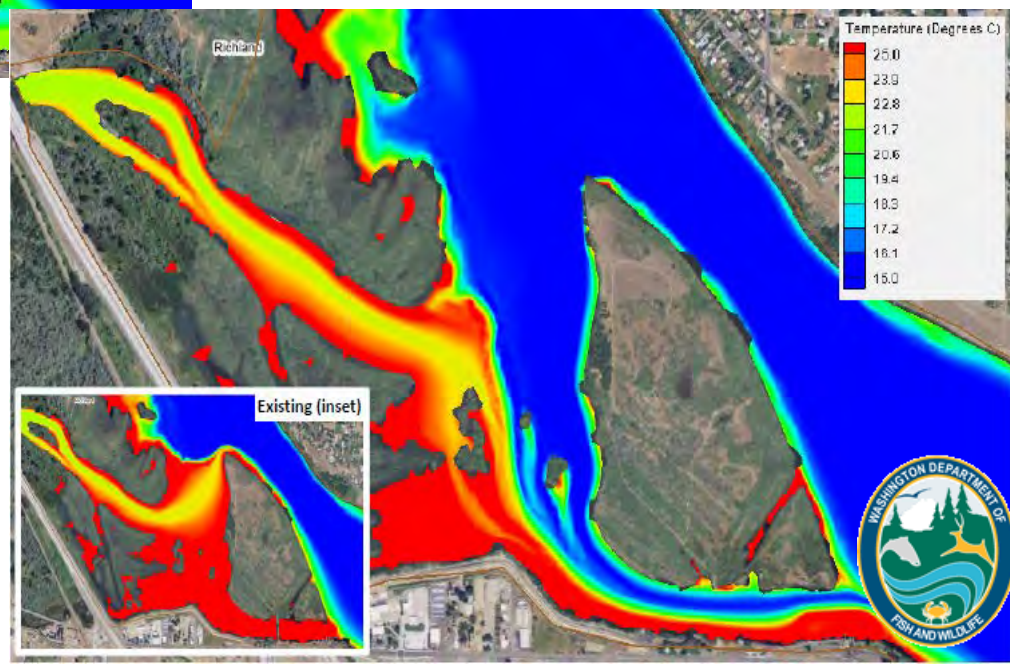


Results



Varying causeway breach sizes and configurations

Breaches of 260 feet and greater produced the most benefit of decreasing water temperature west and south of Bateman Island



Community Input

Full breach

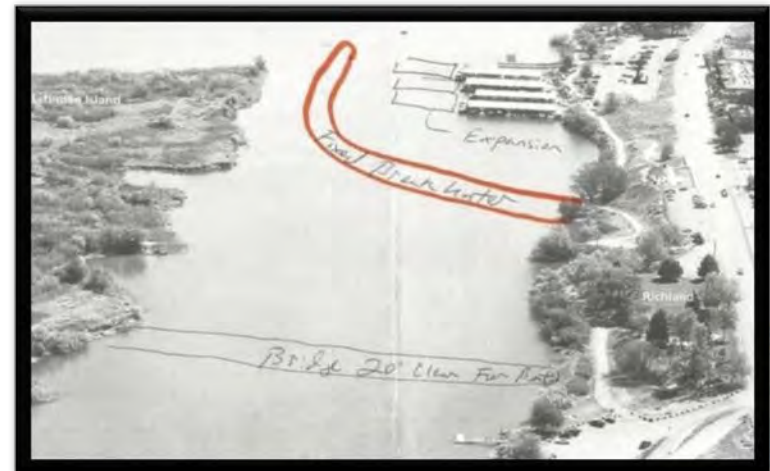
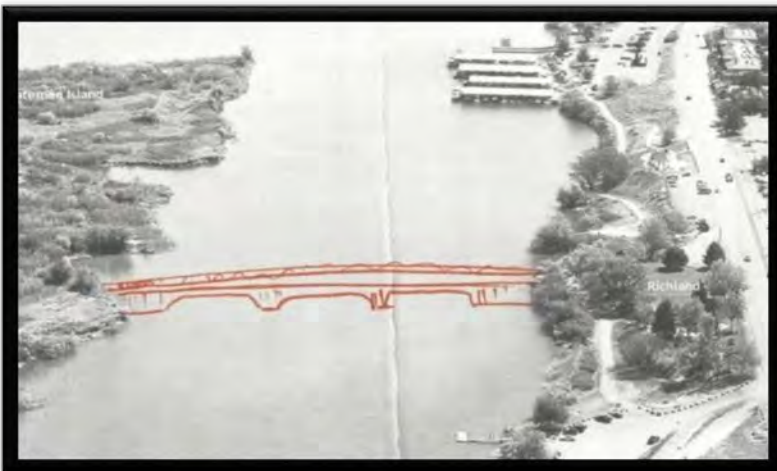
April 2014

- Focus = fisheries
- Hand drawn by public



Partial breach

Full breach & breakwater



The Vision

- Breach causeway
 - Remove a significant fish passage barrier
 - Improve river conditions for migratory salmonids
- Access
 - Maintain public access
 - Provide new opportunities
- Marina
 - Current, debris, sediment



Next Steps

Outreach

Share results from technical work group

Link Bateman Project with Yakima Basin Integrated Plan

Develop shared vision
Develop Partnerships

WDFW as lead agency
Initiate Summer 2017
Co-lead with Others(?)



Thank you!

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