

# Confluence of Gray and Green Infrastructure in the Gap to Gap Reach:

## Incorporating the Yakima Regional Wastewater Treatment Plant Outfall And Floodplain Restoration

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# Overview

- What is gray and green infrastructure?
- Gap to Gap- and the City of Yakima Outfall
- What's our chosen route forward?
- Phase 1 and Phase 2

# Gray Infrastructure

## Infrastructure:

the system of public works of a country, state, or region or the resources required for an activity. *Merriam Webster App for iphone, 2013*



Gray infrastructure.  
It works most of the time . . .



# Green Infrastructure:

ecosystems and their processes as the underlying foundation or basic framework providing what we need

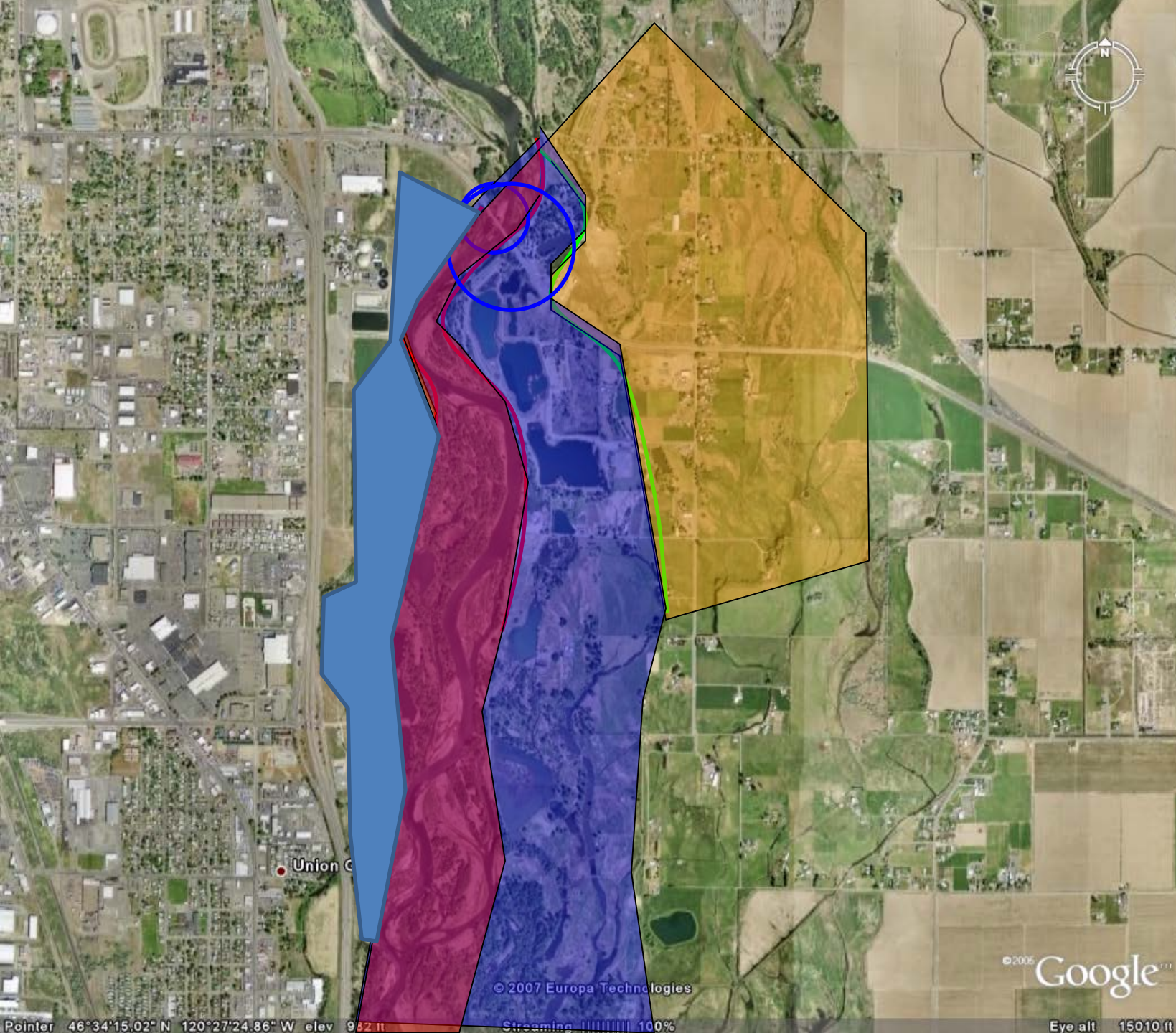


- Clean water
- Oxygen
- Flood risk reduction
- Carbon sequestration
- Water storage
- Fish and wildlife habitat
- Biodiversity/bio-resiliency

# Green Infrastructure always works, but sometimes needs a little help

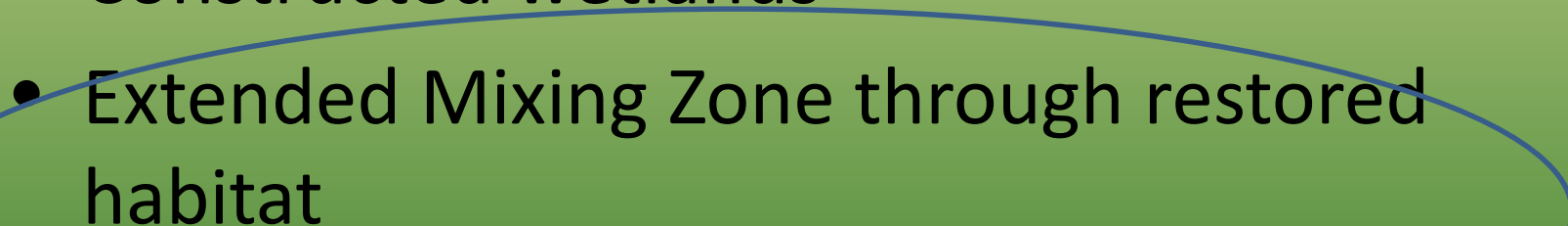


Photo Courtesy of Tom Elliot, Yakama Nation Wildlife Program



The Gap to Gap slide:

# What about the outfall? And “mixing zone”

- Pump it uphill
  - Pipe it to Union Gap
  - Treat it to re-use standards and use it/drink it
  - Constructed wetlands
  - Extended Mixing Zone through restored habitat
- 



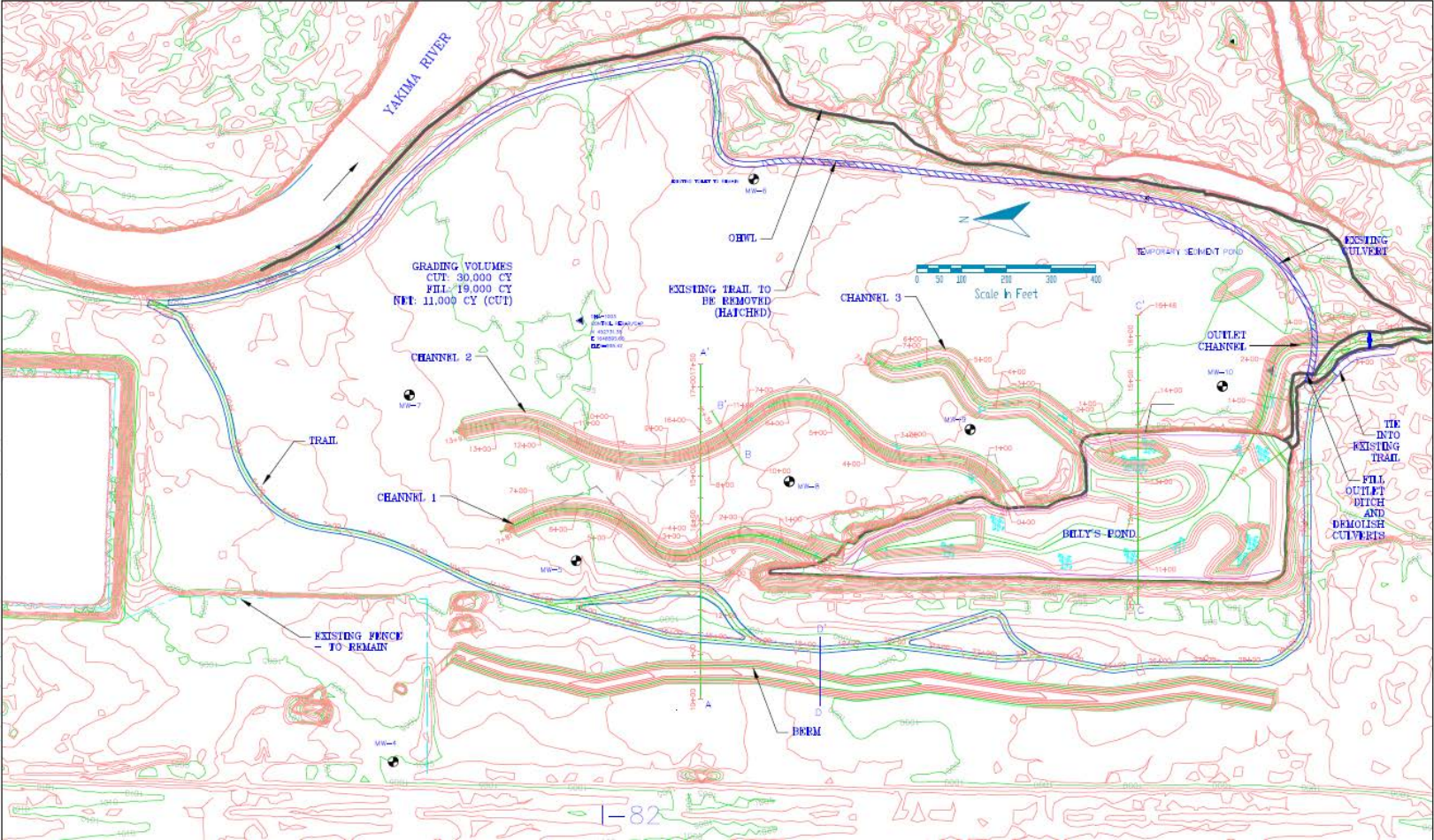


Phasing involves getting “green infrastructure established before gray

- PHASE ONE (Project 2267a) is:  
Phase 1 and Phase 2 SRFB, WDFW ALEA, FWS Partnership, YTAHP, Yakima County and City of Yakima project
- Potential construction start date in next couple of weeks



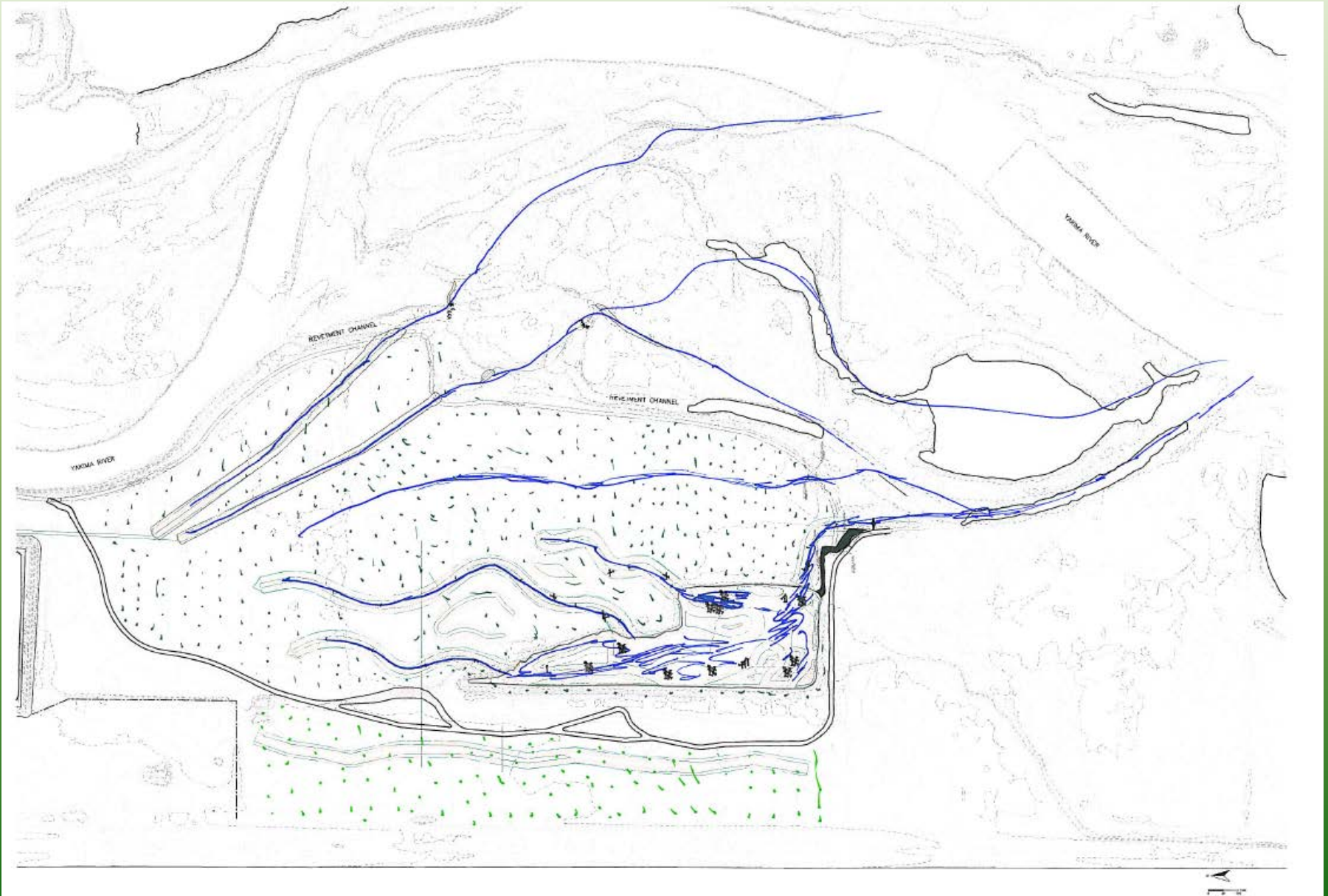
# Phase 1



# Phase 2

- Delivering Treated Water to area above PHASE ONE.
- More habitat work

# Phase 1 and 2



# Project Benefits

- Water Quality Improvements beyond what is possible with “gray” infrastructure upgrades
- Approximately 300 acres of horizontally and vertically re-connected floodplain
- Allows Gap to Gap to proceed once outfall issue is “taken care of” (1000 + acres)
- Flood Hazard Reductions
- “Sponge” effect water storage of floodplain
- Fish and wildlife habitat
- Aligns Greenway Trail out of the floodway and protects it as a valuable community asset.

# Questions?



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