



# Can beaver impoundments create suitable turtle habitat?

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# Background: Turtles

- Western painted turtle
- Most widespread turtle in U.S.
  - One of the most frequently studied
- Slow to stagnant water
  - Over-wintering superpower
- Nest on land
- State Listing Status: Sensitive



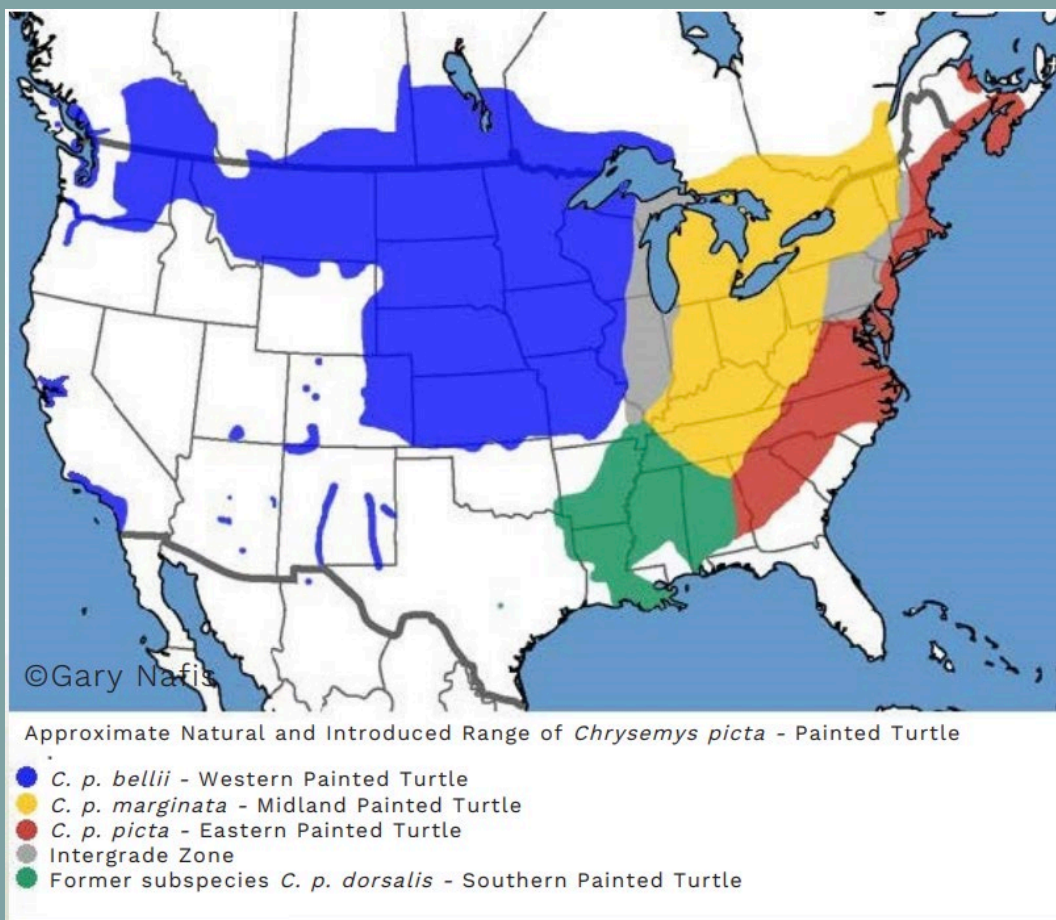


Figure 1. Range map of the painted turtle, divided by subspecies.

Image Credit: Gary Nafis

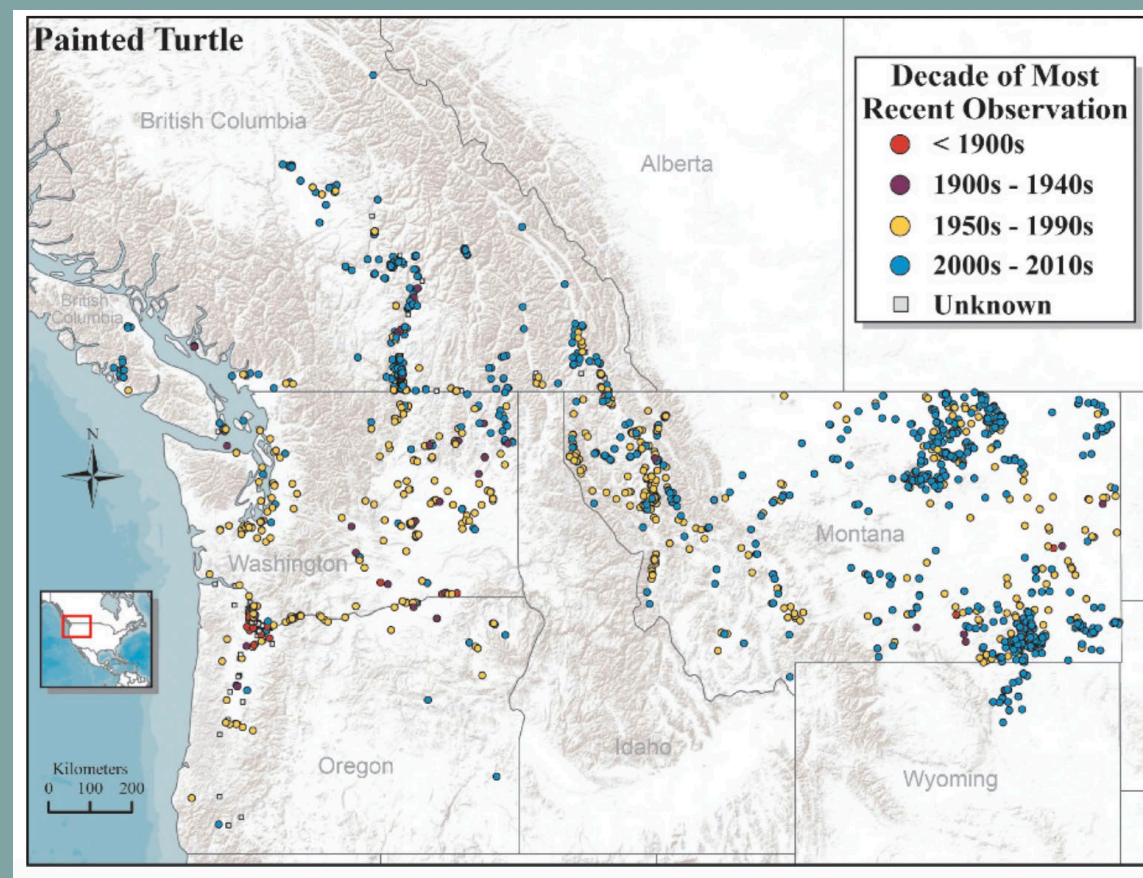


Figure 2. Map of comprehensively compiled localities of the Painted Turtle from Canada and northwest United States displayed by decade of most-recent observation, showing potentially extant occurrences, n = 2953 locations

Barela & Olson, 2014

# Background: Turtles

- Northwestern pond turtle
- Can inhabit lentic and lotic waters
- Overwinters on land
- Stackable!
- Federal status: Species of Concern
- State Listing Status: Sensitive





Figure 3. Range map of the pond turtle, divided by subspecies.

Image Credit: Gary Nafis

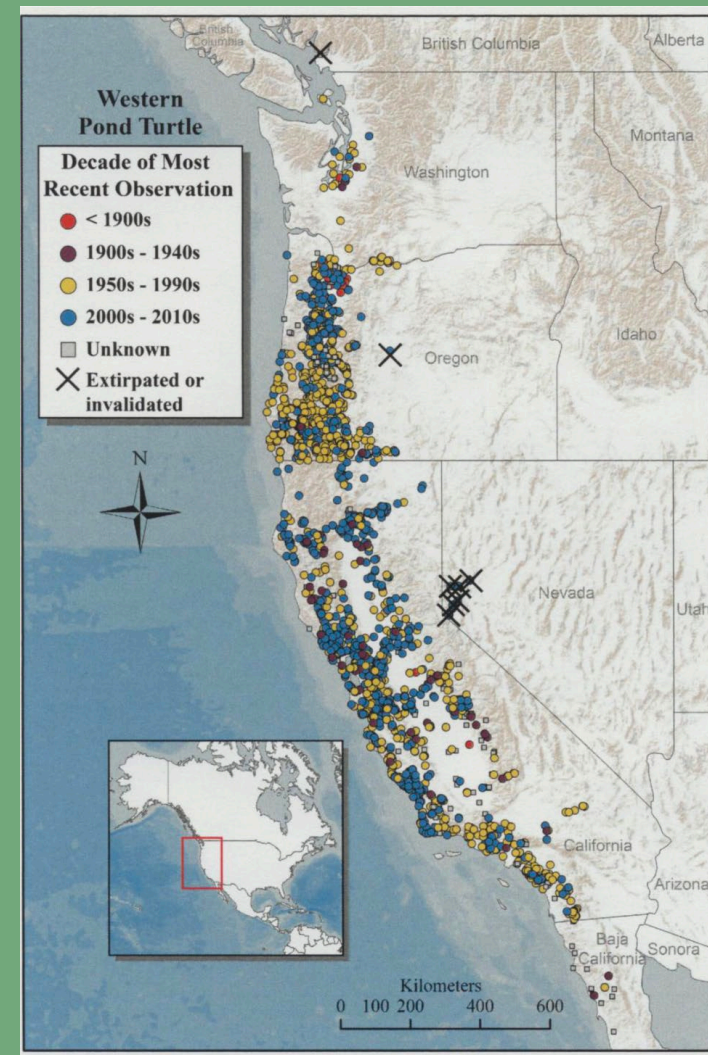


Figure 4. Map of comprehensively compiled localities of the Pond Turtle displayed by decade of most-recent observation, showing potentially extant occurrences, n = 2935 locations  
Barela & Olson, 2014

# Background: Turtles

- Habitat needs:
  - Nesting habitat
  - Thermoregulation
  - Food
- Declining populations
  - Invasive species
  - Habitat degradation/loss

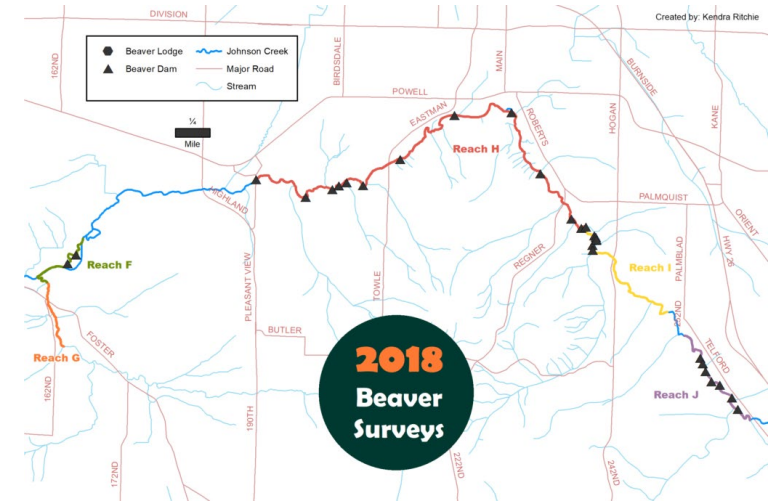
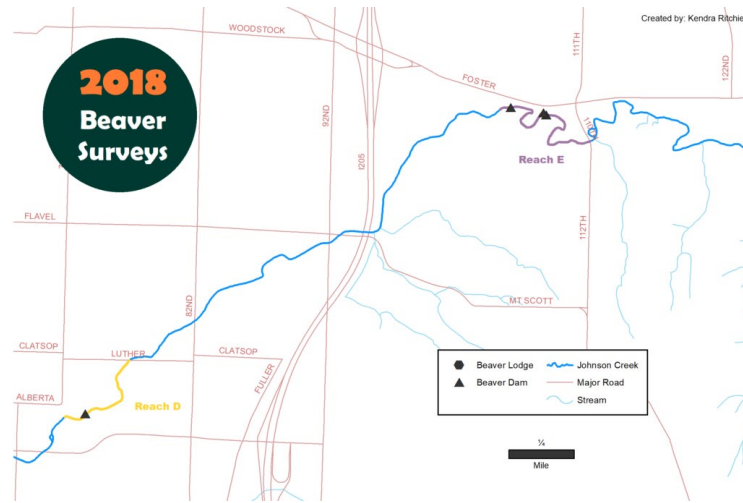


# Background: Beavers

- Almost extirpated in 1800s
- Currently almost inhabits previous range
  - Human-wildlife conflict
- Beaver damming
  - Flood control
  - Water storage
  - Wildlife habitat
    - Slow flow
    - Increase food availability
    - Temperature buffering

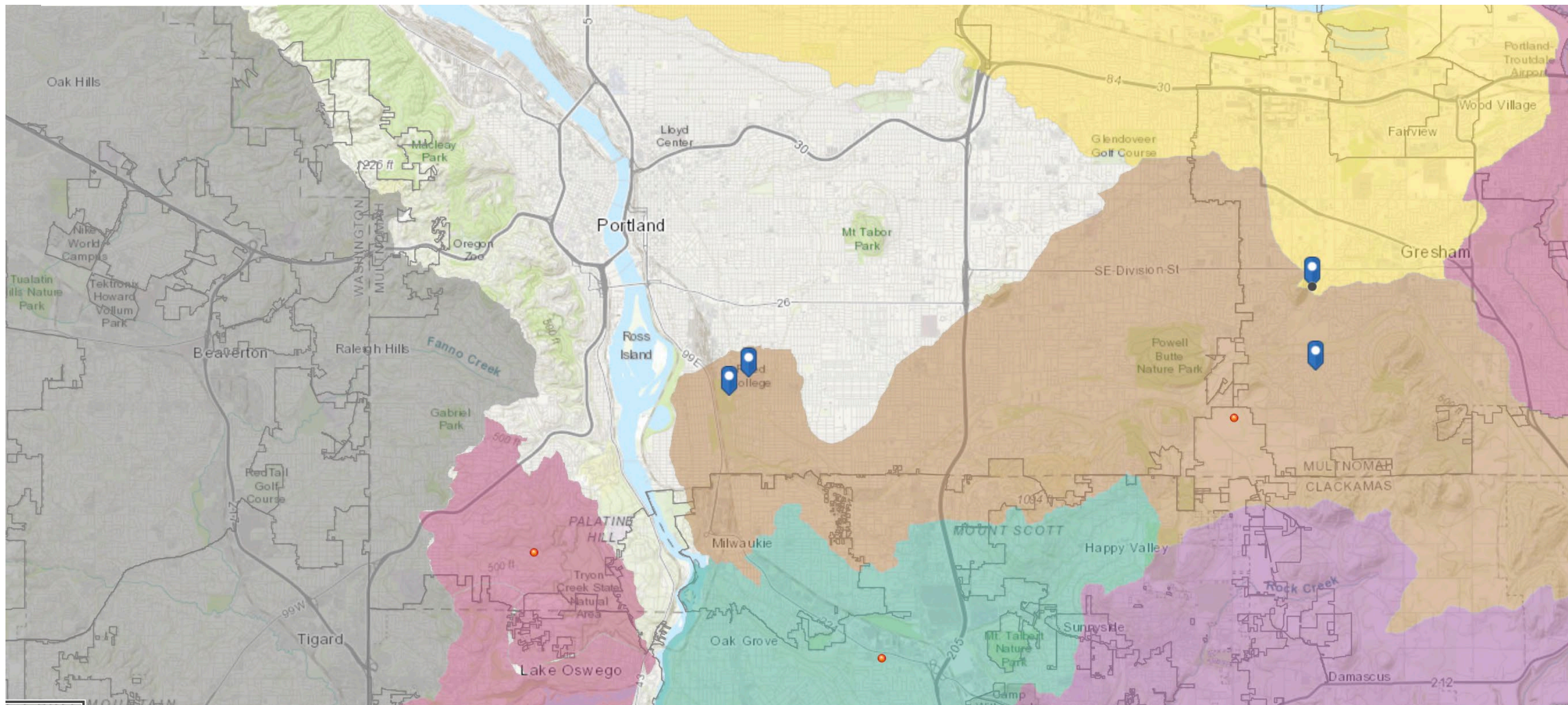


## 2018 Surveys: 49 dams and 7 lodges




## 2021 Surveys: 94 dams and 24 lodges






# Fairview Creek Headwaters

- Priority Turtle Conservation Area
- Beaver-dammed wetland
- Formerly connected to JCW
- Turtle Trapping Occurred in 2007 and 2013



**Priority Turtle Conservation Area:**  
Fairview Creek Headwaters

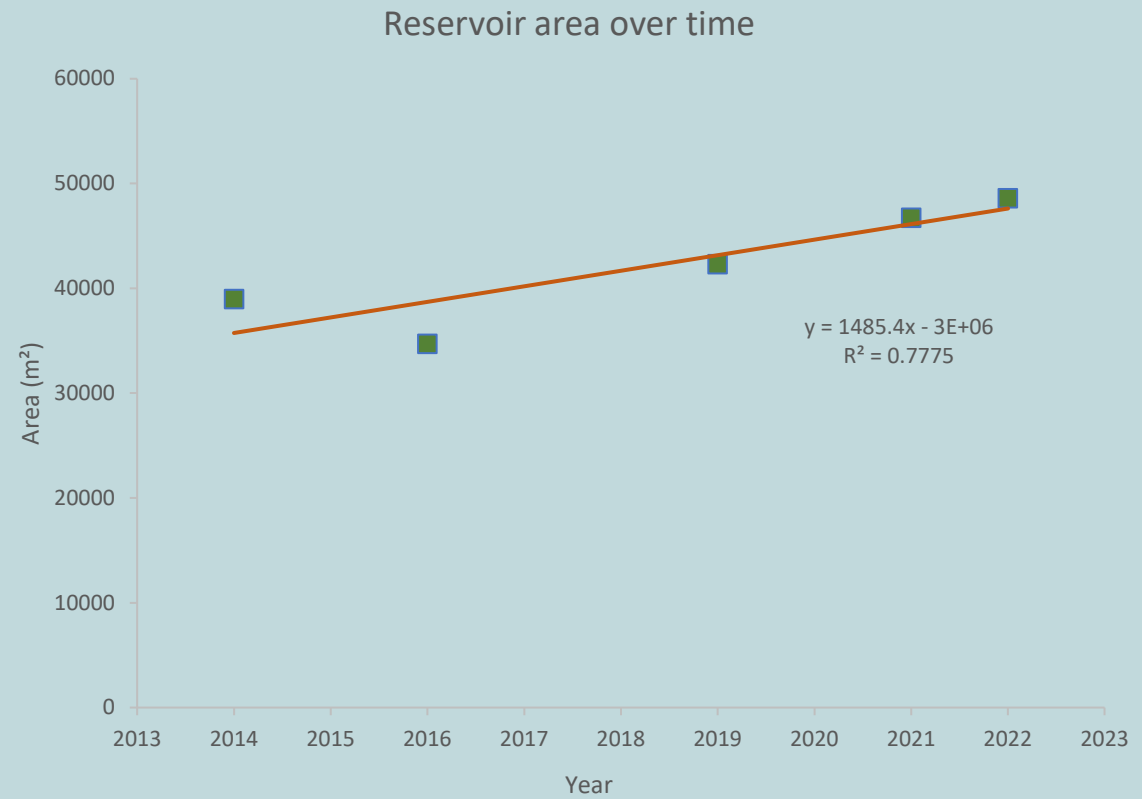


**Location:** Gresham, Multnomah County, OR. 182nd Ave to the west and NW Birdsdale Ave to the east; SE Division Ave to the north and SE Powel Blvd to the south.

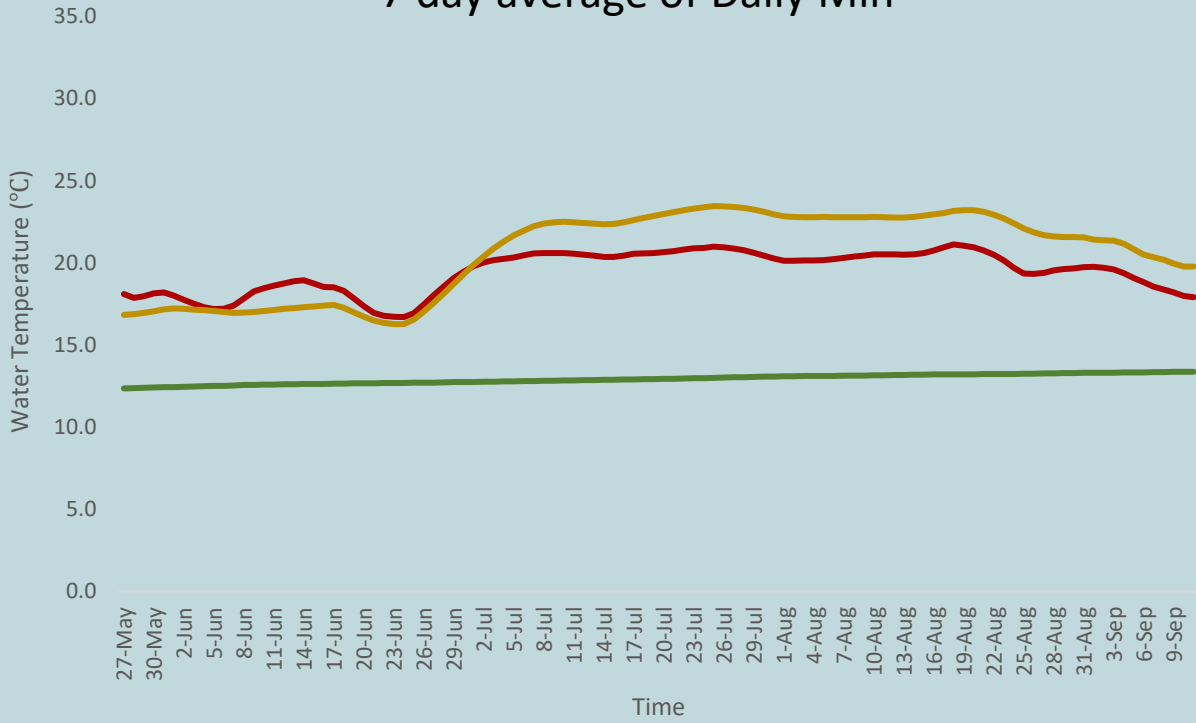
**Ownership:** City of Gresham, with a 33-acre portion co-owned by City of Gresham and Metro.



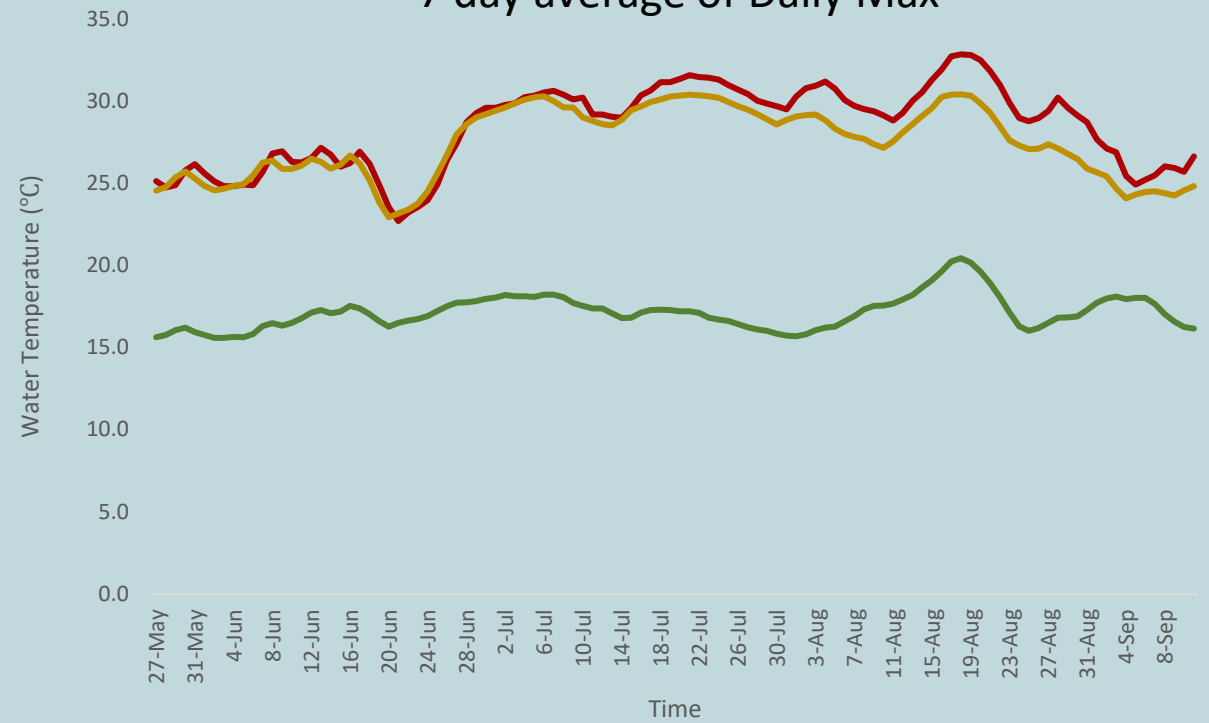
# Water storage as beaver dams age



### 7 day average of Daily Min



### 7 day average of Daily Max

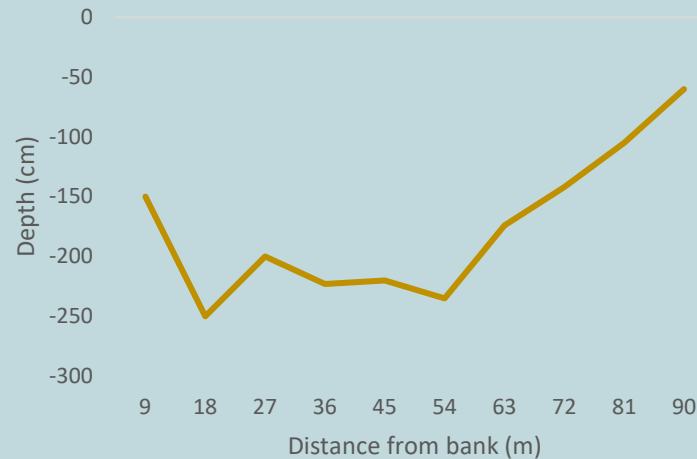


— Beaver-dammed — Control — Beaver-dammed

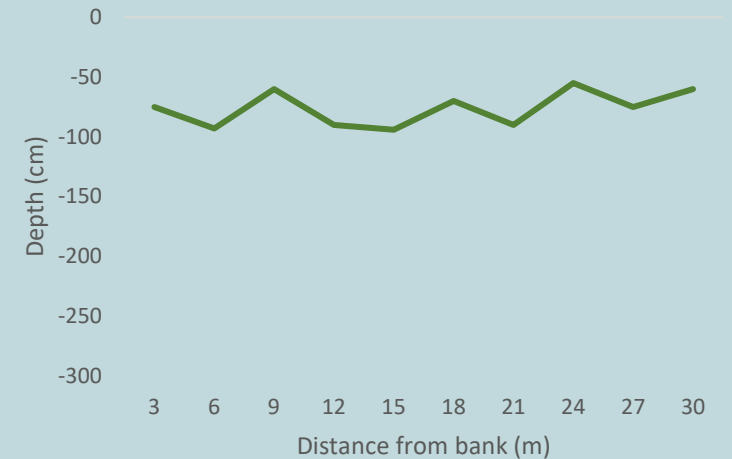
### Fairview Creek Headwaters



### Binford Pond



### Majidi Acres





**Thank you!**

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