

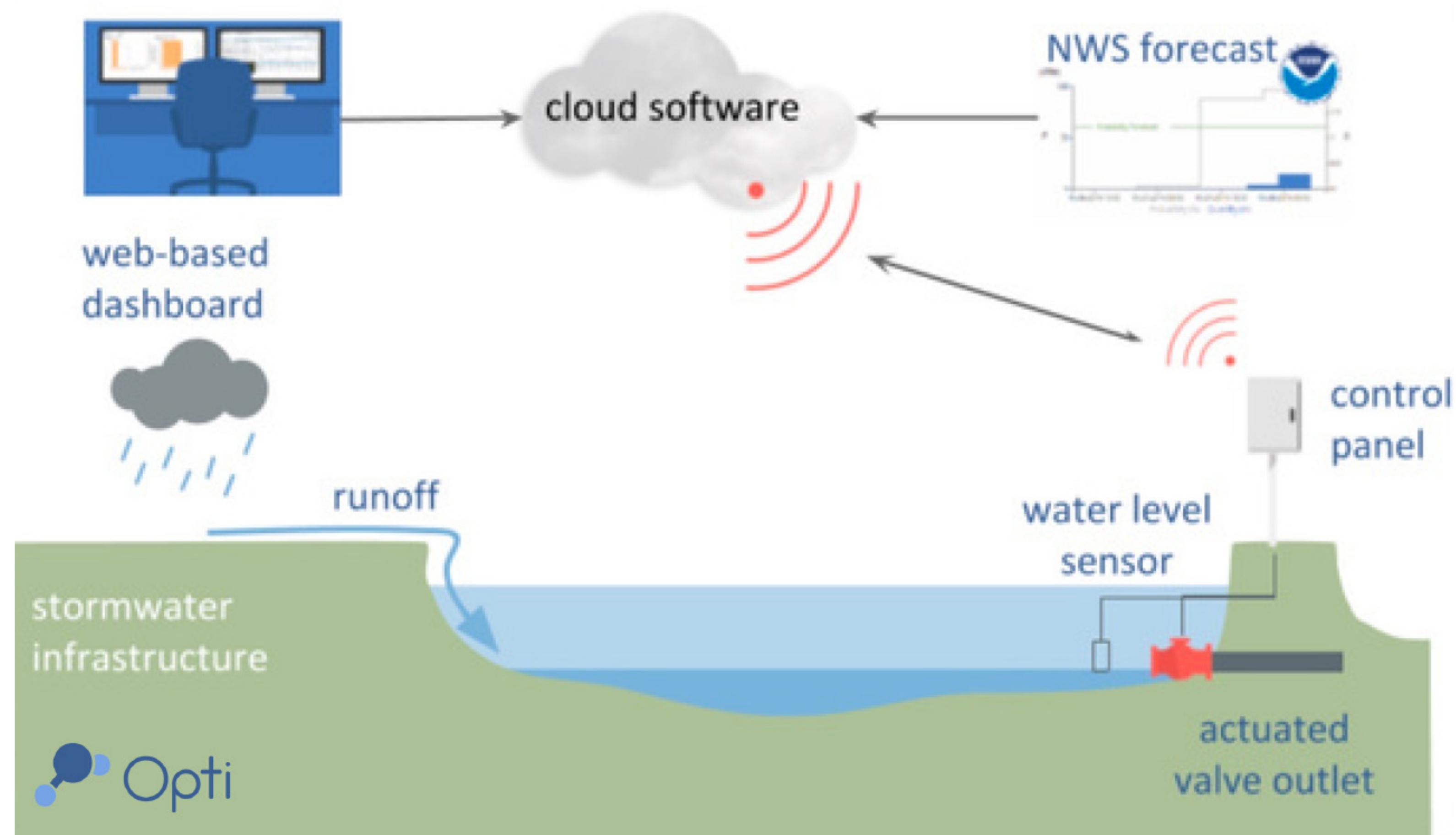
Welcome!

This is the public information open house for the Palm Street Smart Pond project

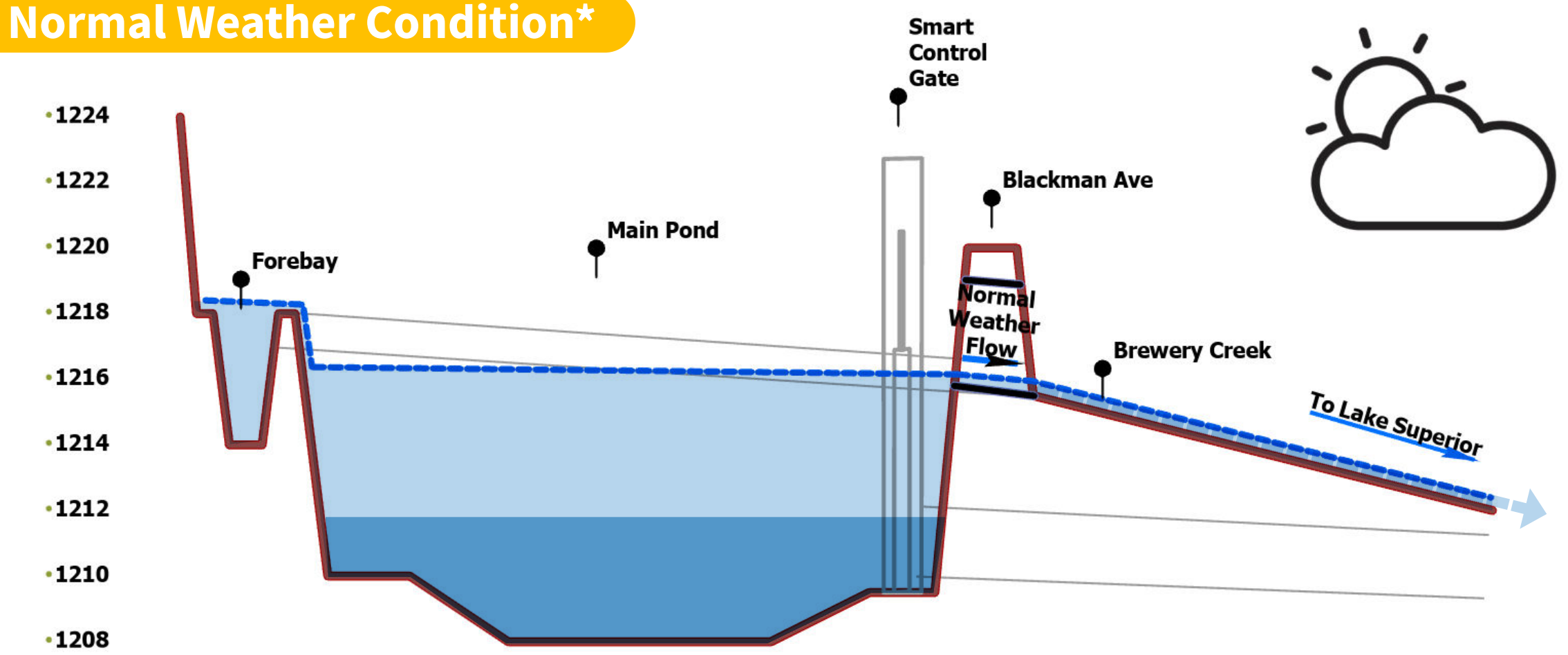
- 1 Please sign in!** If you'd like to stay up to date with this project, leave your email!
- 2 Review the project location & goals.** Explore the boards to learn about what this project is addressing & when.
- 3 Ask Questions!** Find a design team member and learn more about the project!

What is a Smart Pond?

A pond that is connected to live weather forecast data and uses that information to project water levels. If necessary the controls will automatically lower the water level before the storm arrives to create capacity to manage the incoming storm event. Smart ponds can be controlled remotely and manually by local storm water managers who oversee pond performance.

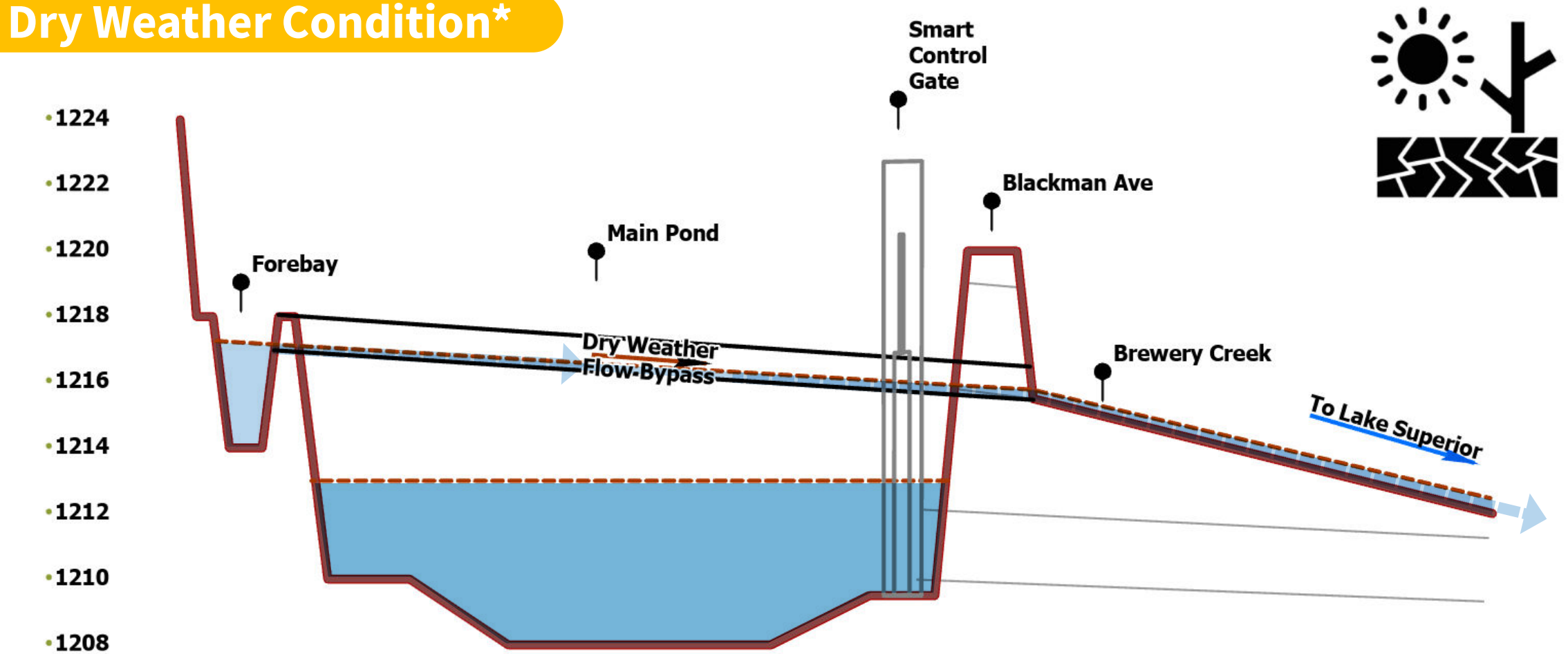


1 Normal Weather Condition*



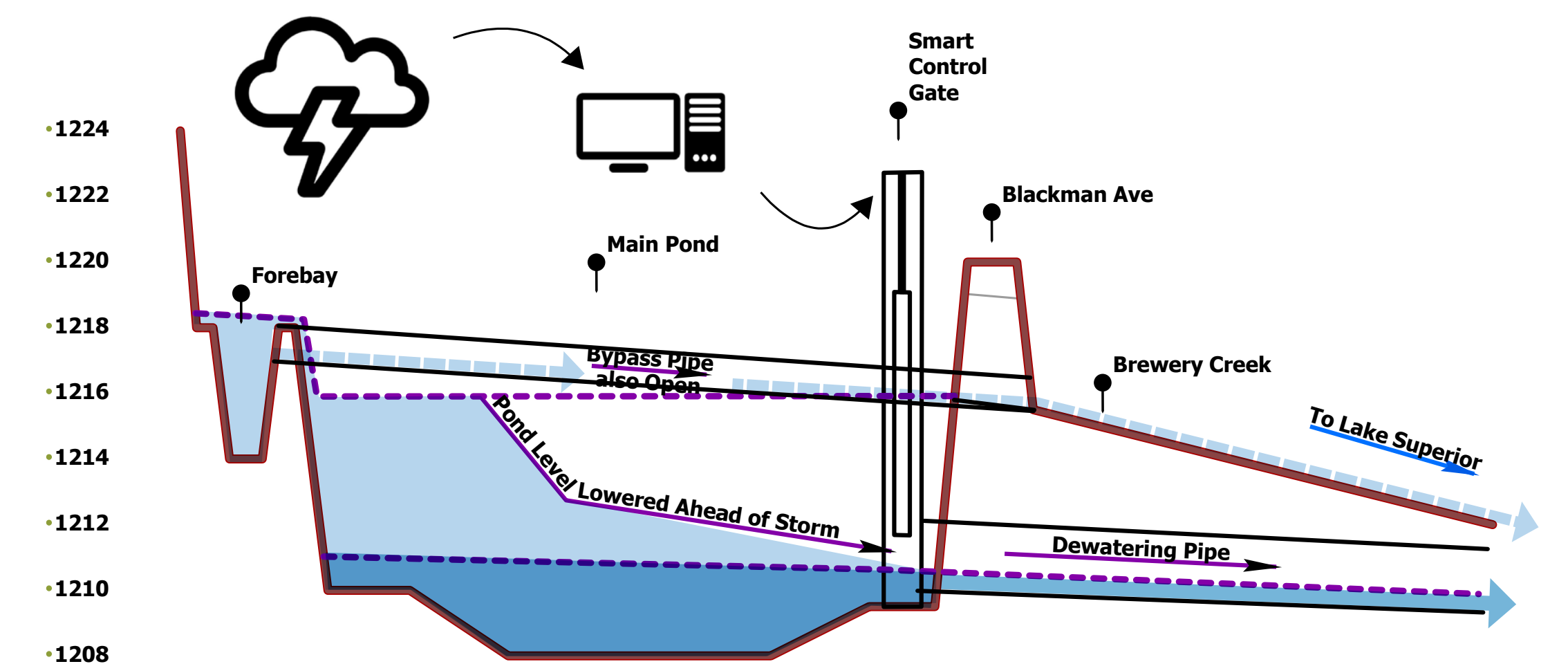
During normal weather operations, flow goes through regular outlet (two arch culverts) at Blackman Avenue. The Smart Control Gate is closed in normal conditions.

2 Dry Weather Condition*



When the pond level is low due to prolonged dry weather, some of the incoming flow discharges straight to the Brewery Creek via a bypass pipe.

3 Storm Weather Condition*



When storms are in the forecast, the Smart Control Gate opens automatically, emptying the pond over approximately 6 hours to accommodate incoming runoff (adaptive storage).

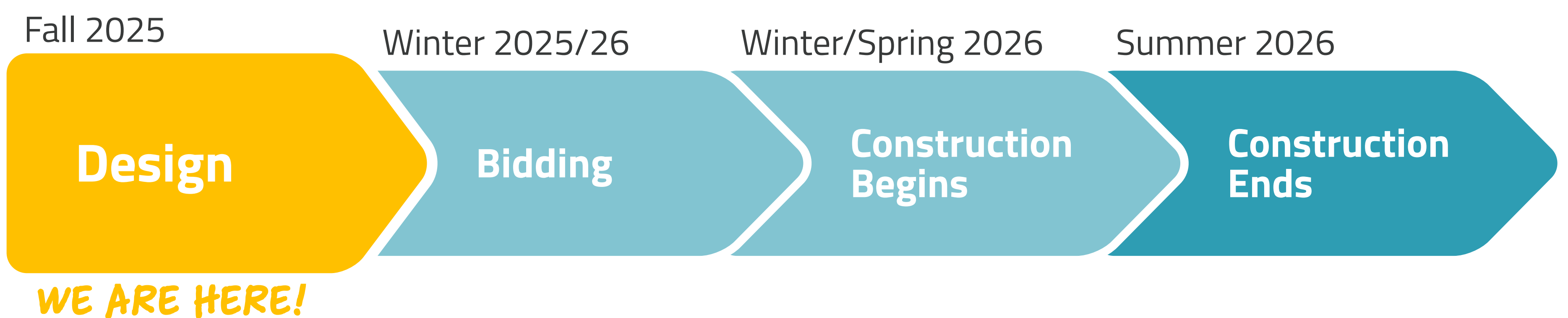
* Diagram scales have been exaggerated

Palm Street Smart Pond

Project Purpose & Need

- + To improve existing pond function
- + Enhance stormwater treatment to improve water quality
- + Increase pond capacity
- + Reduce flooding risk downstream

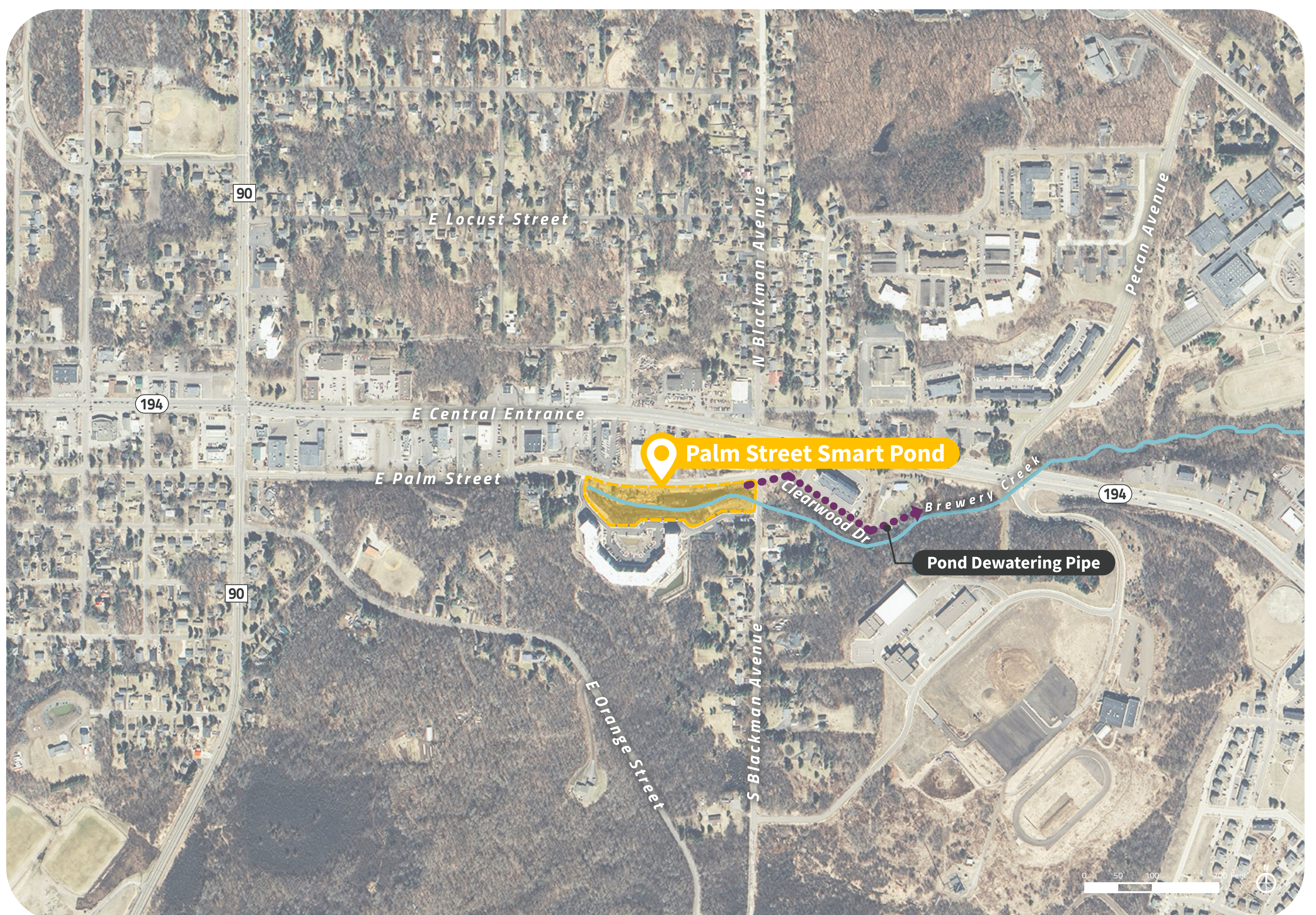
Project Schedule



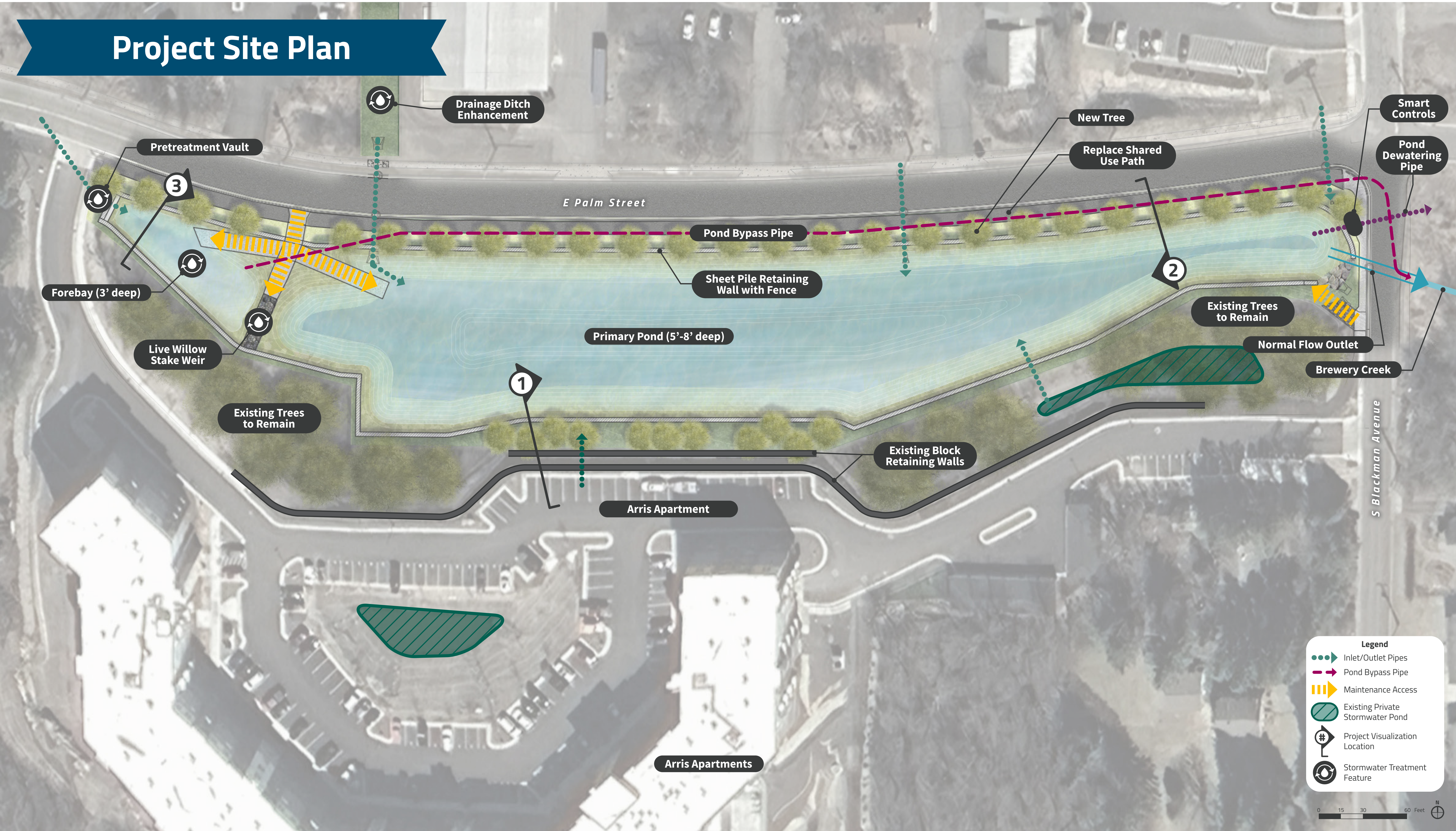
Project Funding

Minnesota Pollution Control Agency (MPCA) Implementation Grant for Stormwater Resilience and City of Duluth Stormwater Utility Fund

Project Location

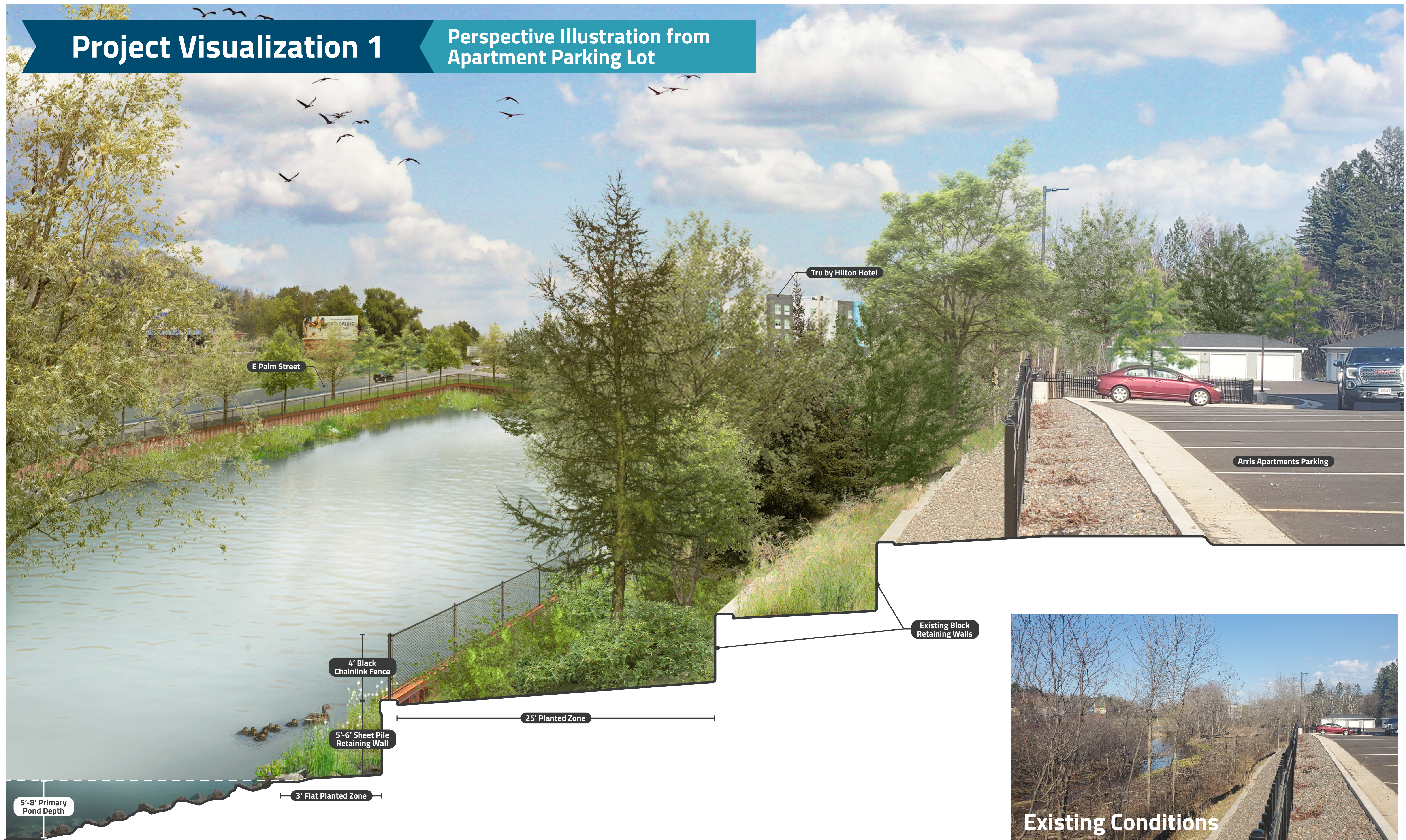


Project Site Plan



Project Visualization 1

Perspective Illustration from
Apartment Parking Lot



Project Visualization 2

Perspective Illustration from Palm Street
Facing Southwest



Project Visualization 3

Perspective Illustration from Palm Street Facing Southeast

