



Sammamish

City of Sammamish Pine Lake Creek Basin Plan

WELCOME!

The City of Sammamish is developing a comprehensive plan for the Pine Lake Creek watershed, including Pine Lake. Known as the Pine Lake Creek Basin Plan (Basin Plan), it will provide an assessment of the current state of the basin and create priority strategies, projects, and programs to tackle issues such as flooding, erosion, water quality, and ecological concerns within the basin. We want to improve and protect our lake and watershed to preserve this natural resource for everyone to safely enjoy now and in the future.

AT THIS OPEN HOUSE YOU CAN:

- Learn about the project and why it is important
- Get an overview of the timeline and process
- Learn about known challenges and strategies to address them
- Help refine projects and strategies
- Talk with City staff and project team members about your priorities and concerns in the basin

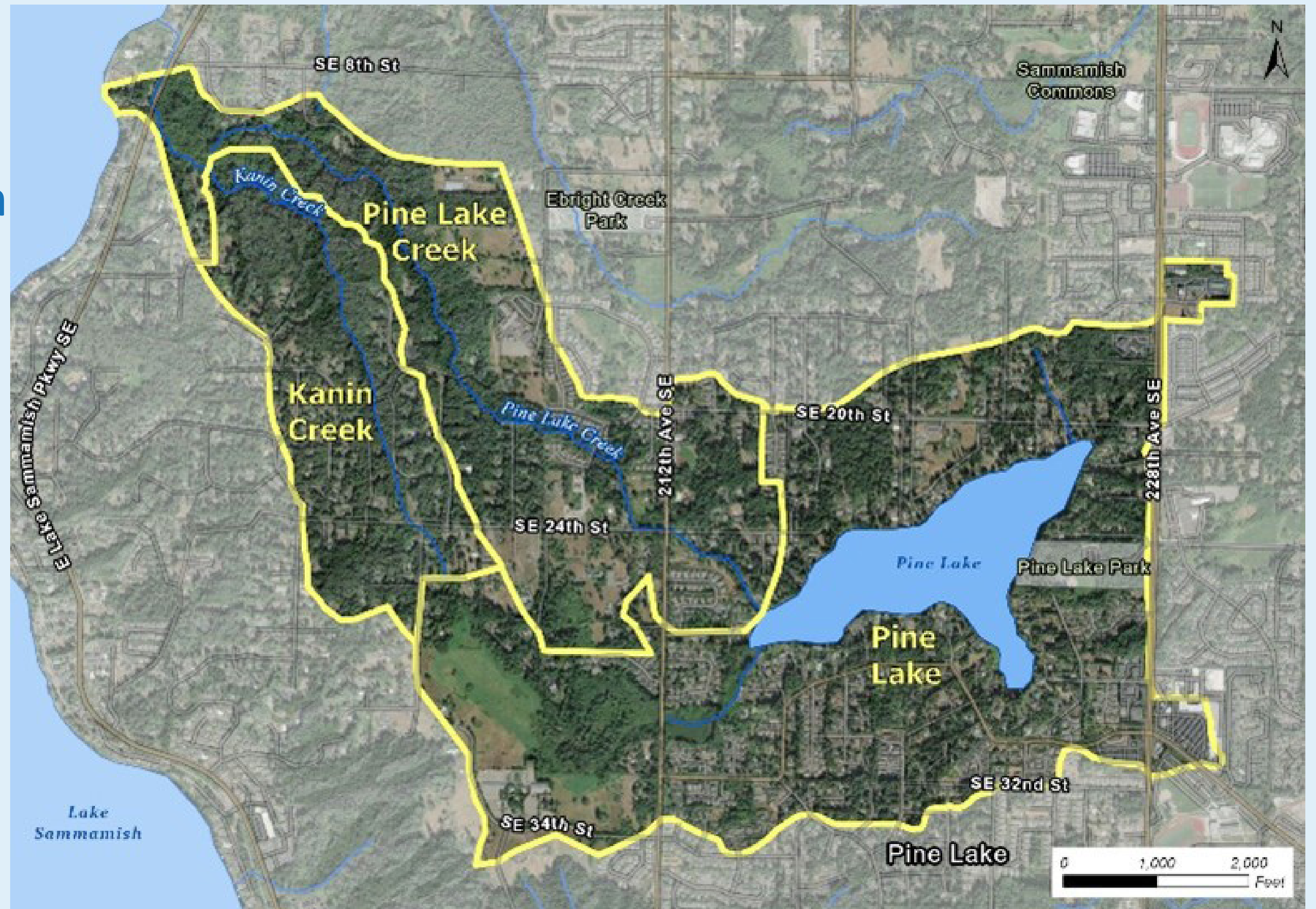
We're so glad you are here!



PROJECT BACKGROUND AND OVERVIEW

The basin includes Pine Lake, Pine Lake and Kanin creeks, and a sphagnum bog complex along with several smaller wetlands.

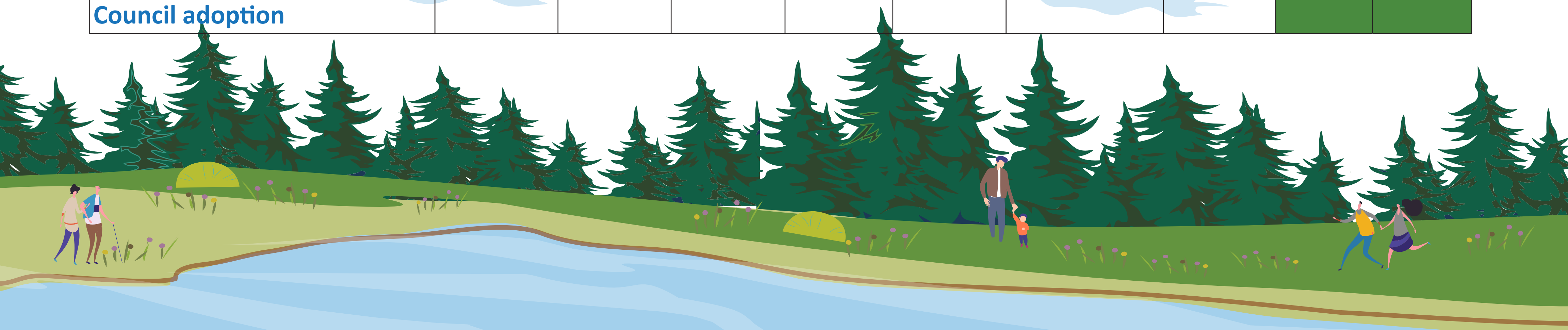
Pine Lake Creek drains approximately 1,200 acres near the south end of the Sammamish Plateau. The Pine Lake Creek Basin is one of our city's most valuable resources. People not only enjoy recreating in and around the lake, but also playing a part in monitoring the health of the ecosystem.



The basin contains some of the largest remaining areas of contiguous forest within the city, and Pine Lake Creek has historically supported a substantial kokanee run and is still considered one of four primary kokanee spawning streams within the city.

TIMELINE AND MILESTONES

	2023				2024				
	Spring	Summer	Fall	Winter	Winter	Spring	Summer	Fall	Winter
Basin assessment and data collection									
Hydrologic modeling									
Lake and basin/stream stakeholder group session #1									
Open house #1									
Identify projects and strategies									
Lake and basin/stream stakeholder group session #2									
Open House #2						we are here			
Prepare basin report									
Environmental review/ Council adoption									



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City of Sammamish Pine Lake Creek Basin Plan

WHY ARE WE PLANNING?

The City is developing the Pine Lake Creek Basin Plan to thoroughly assess current basin conditions and identify strategies, projects, and programs to ensure the future health and enjoyment of the lake and basin for people and wildlife.

Continuous growth in the basin has affected historical kokanee runs, reduced water quality, and increased flooding and erosion.

A comprehensive Basin Plan will help the City protect one of the area's four primary kokanee spawning streams and some of the largest remaining areas of contiguous forests within Sammamish.



WHAT'S INCLUDED IN THE PLAN?

- Current state and conditions of the basin
- Strategies, projects, and programs
 - To address flooding, erosion, water quality, and ecological challenges and that reflect the community's priorities



WHAT DO WE KNOW SO FAR?

LAKE ISSUES AND CHALLENGES

LAKE WATER QUALITY

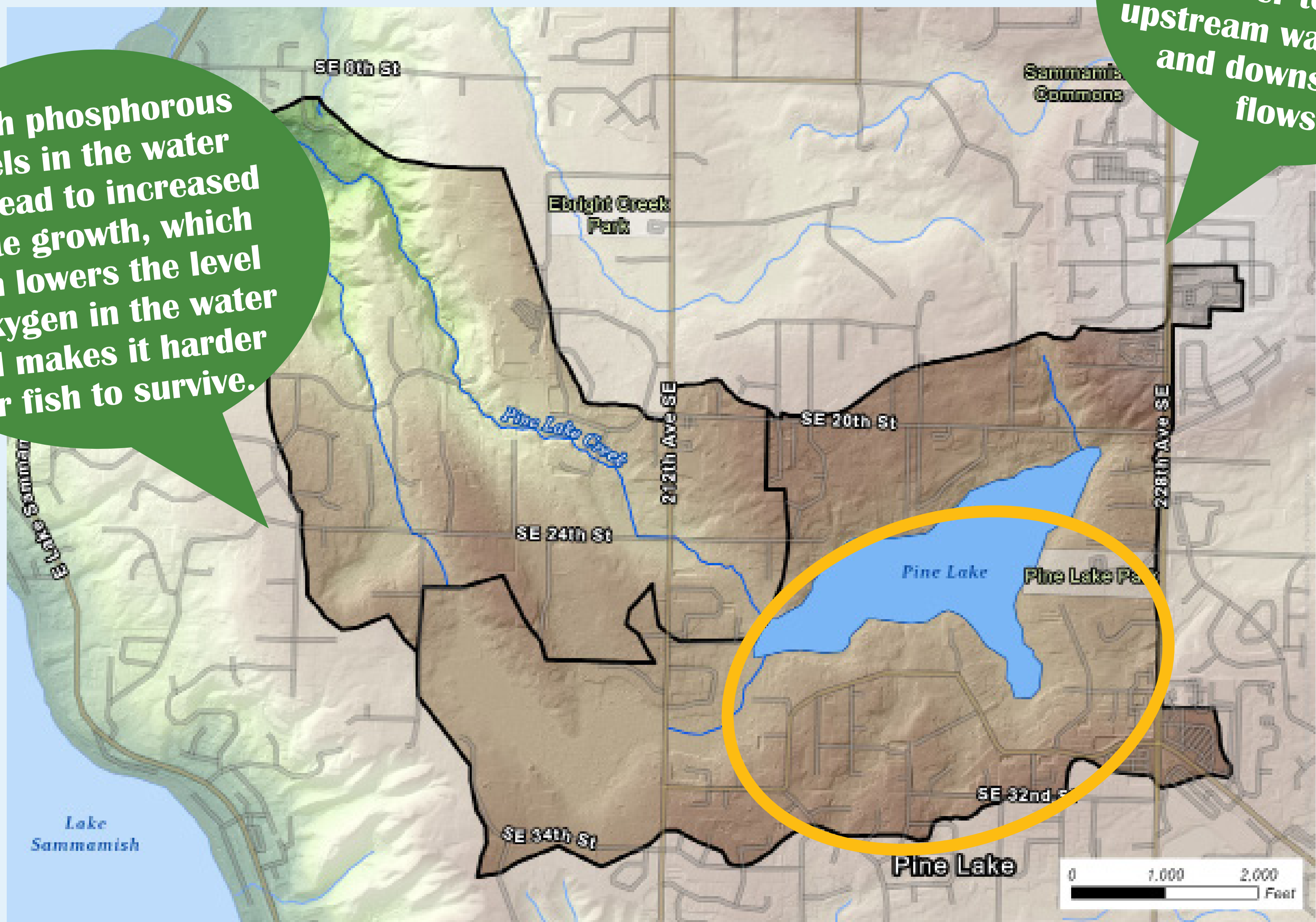
- Phosphorous and nutrient levels
- Sediment
- Suspended solids

WEIR OPERATIONS TO MAINTAIN LAKE LEVELS

- Structure needs repair
- Some areas have small leaks

“What’s a weir?”
A weir is a barrier that crosses the width of a river to control upstream water levels and downstream flows.

High phosphorous levels in the water can lead to increased algae growth, which then lowers the level of oxygen in the water and makes it harder for fish to survive.



WHAT DO WE KNOW SO FAR?

STREAM ISSUES AND CHALLENGES

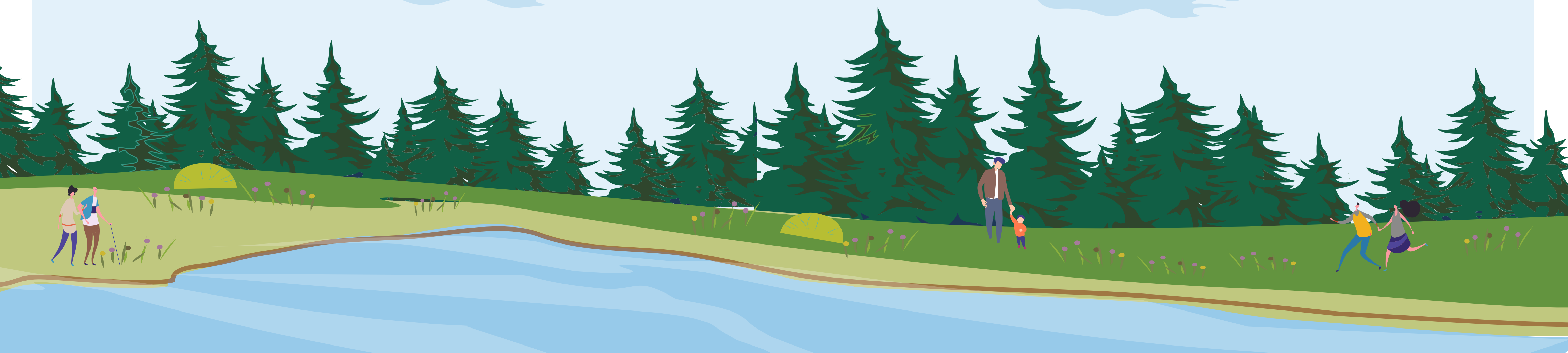
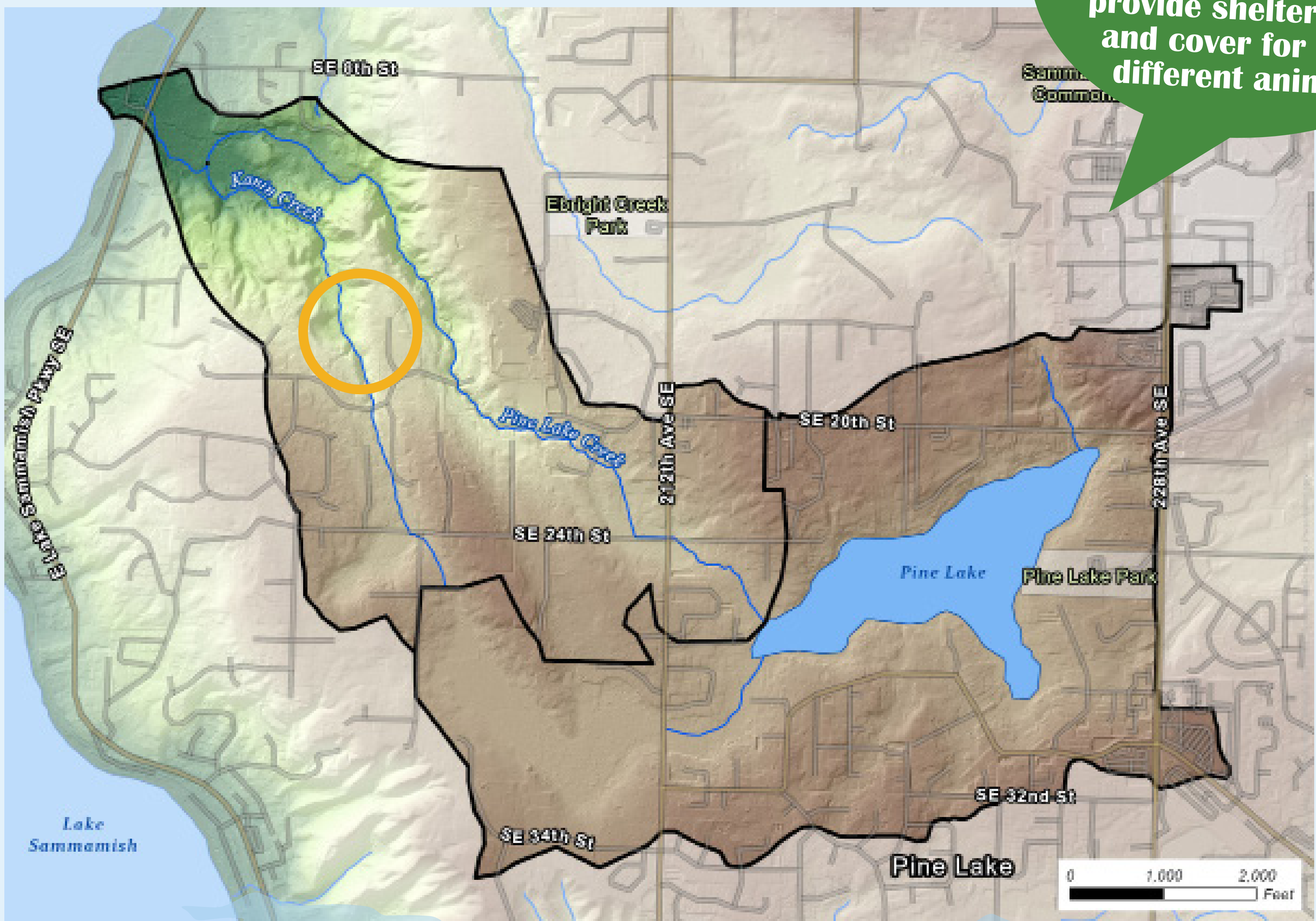
SEDIMENT ISSUES

- Landslide hazards
 - Hillslope failure on Kanim Creek
- Creek sedimentation from upstream hillslope failures

FISH HABITAT

- Correct fish passage barriers
 - Protect and restore riparian areas

A riparian habitat is the area around bodies of water such as rivers and lakes. These areas provide shelter, food, and cover for many different animals.



WHAT DO WE KNOW SO FAR?

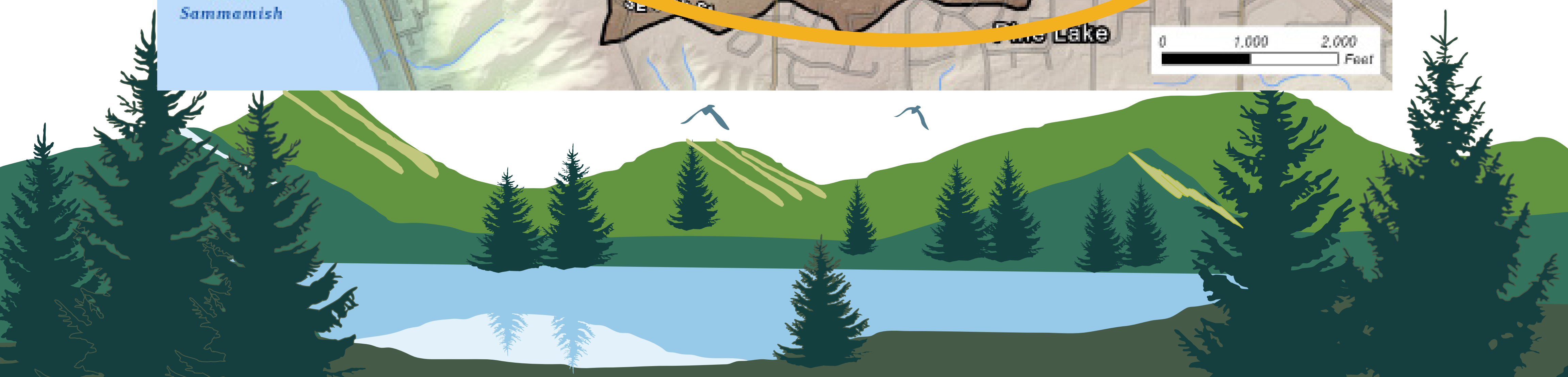
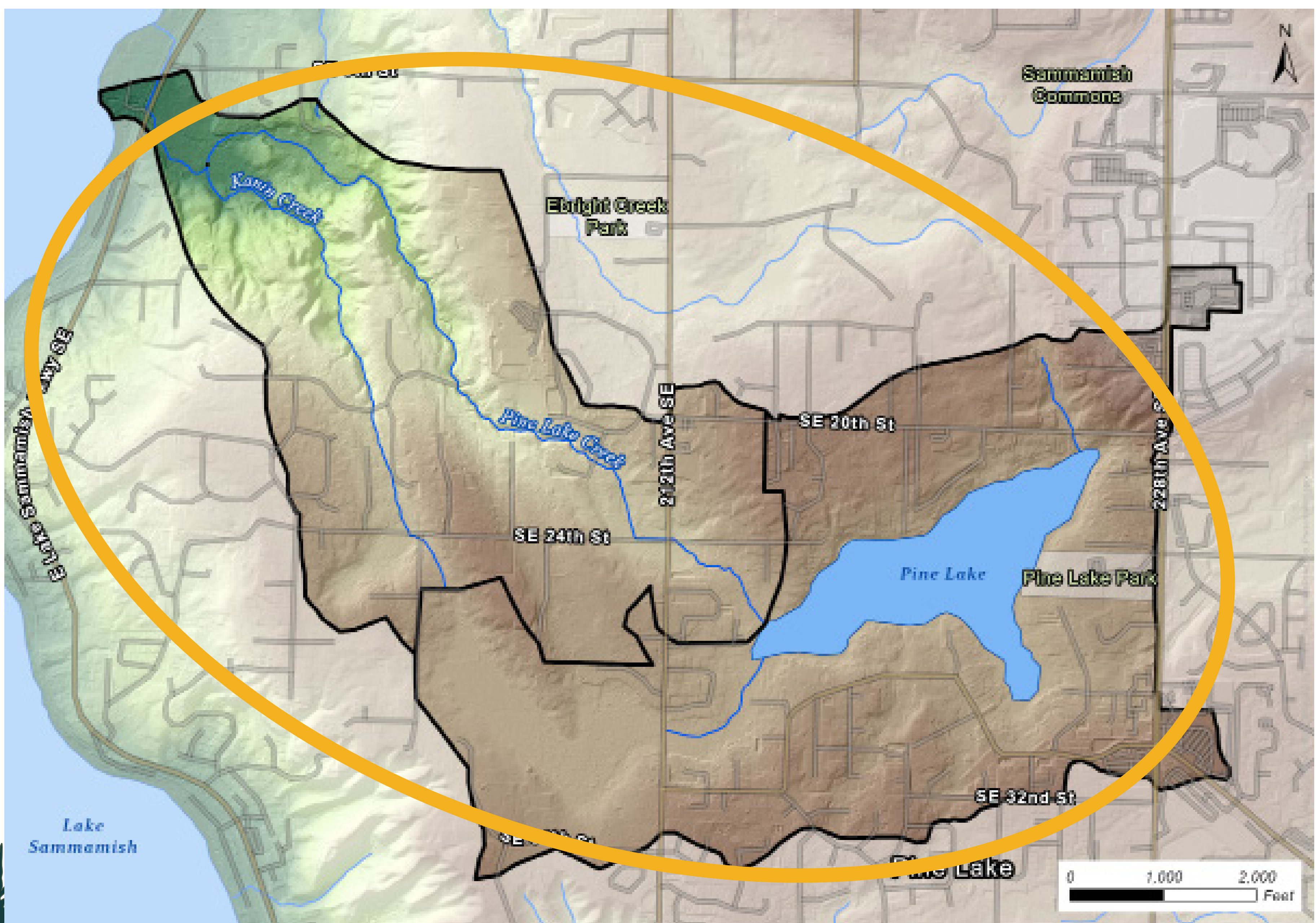
WATERSHED ISSUES AND CHALLENGES

STORMWATER MANAGEMENT

- Undersized ditches and loss of wetland storage leading to flooding and erosion
 - Need ponds and infiltration facilities to reduce flooding
- Older development was not required to provide as much stormwater treatment
 - Sediment and water quality
 - Erosive flows

CLIMATE CHANGE

- Can expect more frequent and intense rain storms



PROTECTION-ORIENTED STRATEGIES

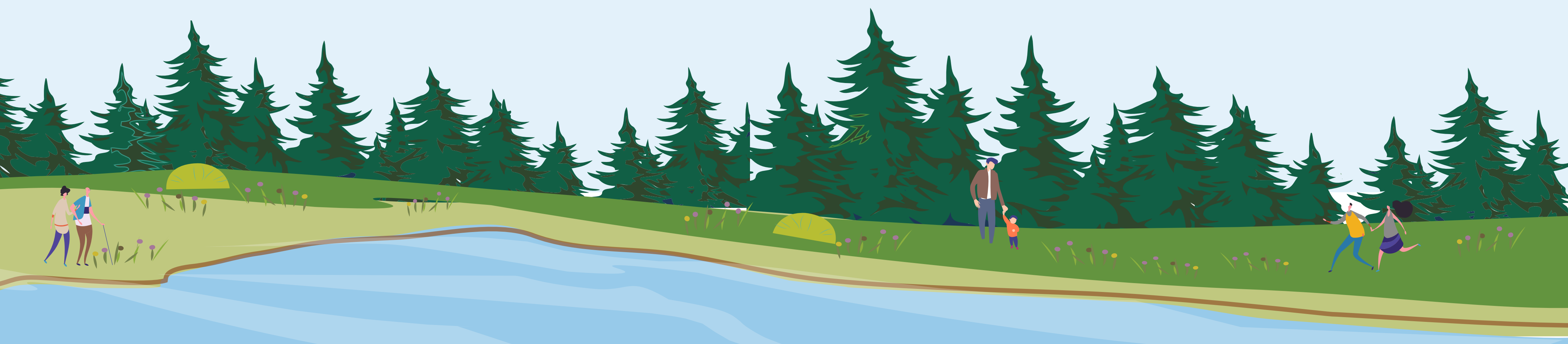
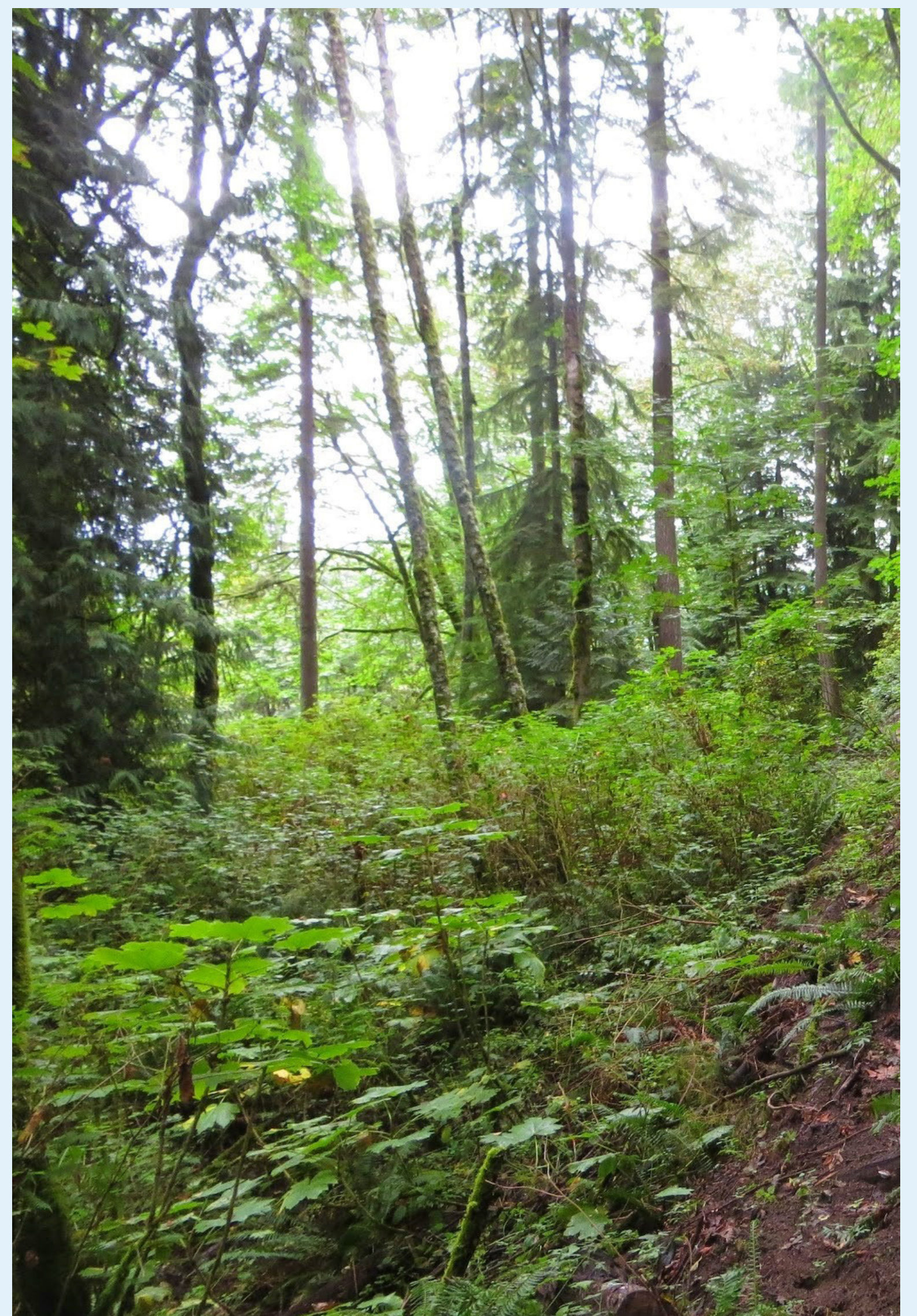
THE ACTIONS INCLUDE:

1. Native Growth Protection Area Easements

- Goal: To preserve and protect riparian forest and wetlands that provide surface water benefits including water quality, flow control, and habitat.

2. Property Acquisition Fund

- Goal: Use existing Surface Water Property Acquisition Fund for opportunities to purchase property or easements in Pine Lake Creek Basin to preserve and protect riparian areas and wetlands.



EDUCATION-ORIENTED STRATEGIES

THE ACTIONS INCLUDE:

1. Sustainable Riparian Landscaping Recognition Program

- Goal: Educate and encourage stream and lakeside homeowners on how to use sustainable landscaping techniques with training and acknowledgement by recognizing qualifying homeowners for their efforts.



2. Targeted Education for Lake Owners

- Goal: Compile and distribute educational materials for lakeside homeowners (on-line or hard copies) with information or links to helpful information on a variety of topics that focus on water quality issues specific to living on a lake, including how to maintain docks and waterside infrastructure, vegetation removal and/or management, what to do when there's an algae bloom, pet waste management, landscaping best management practices, what to do when you suspect a septic system leak, invasive plant and animal species management, etc.

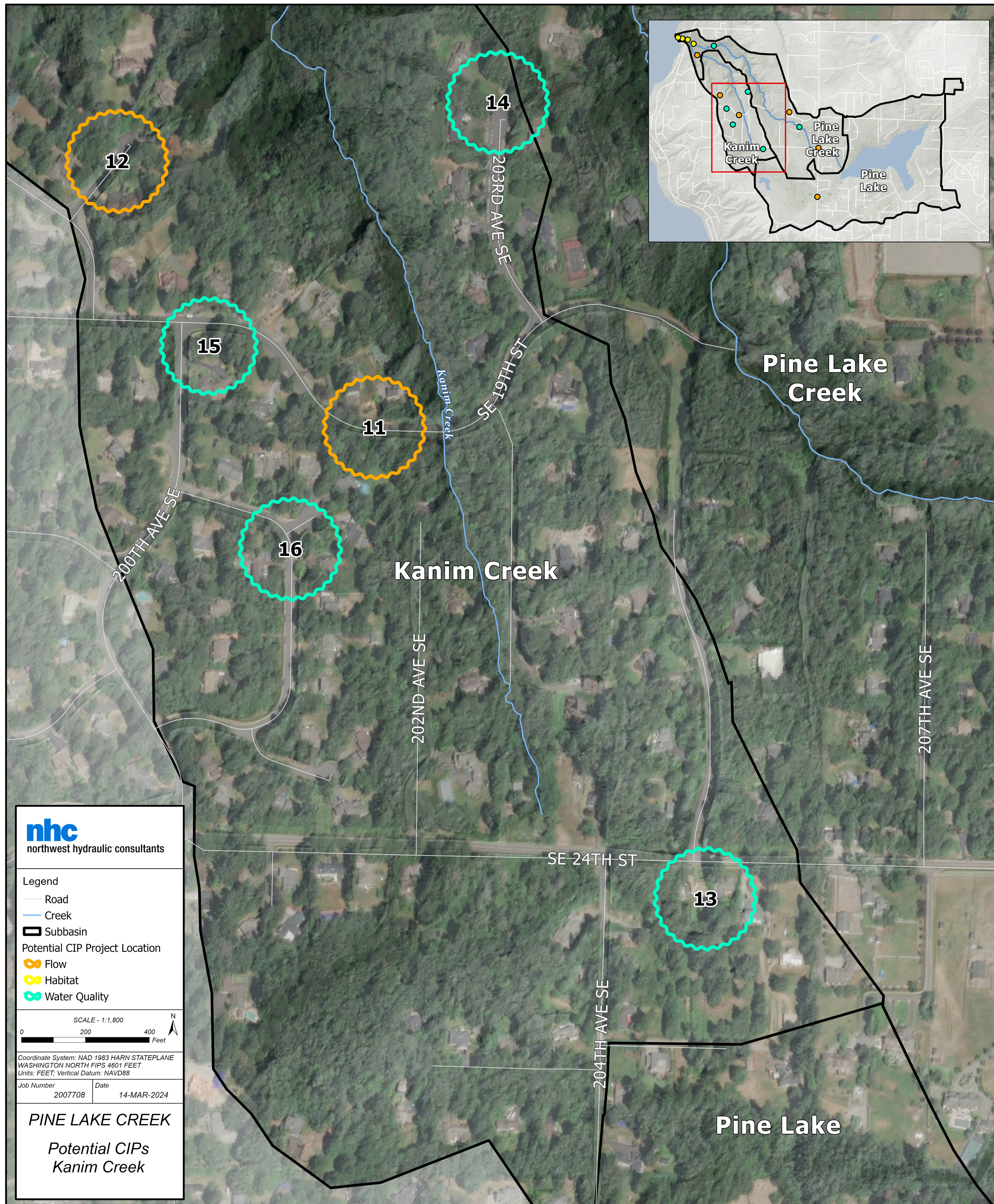


3. Bog Education Program

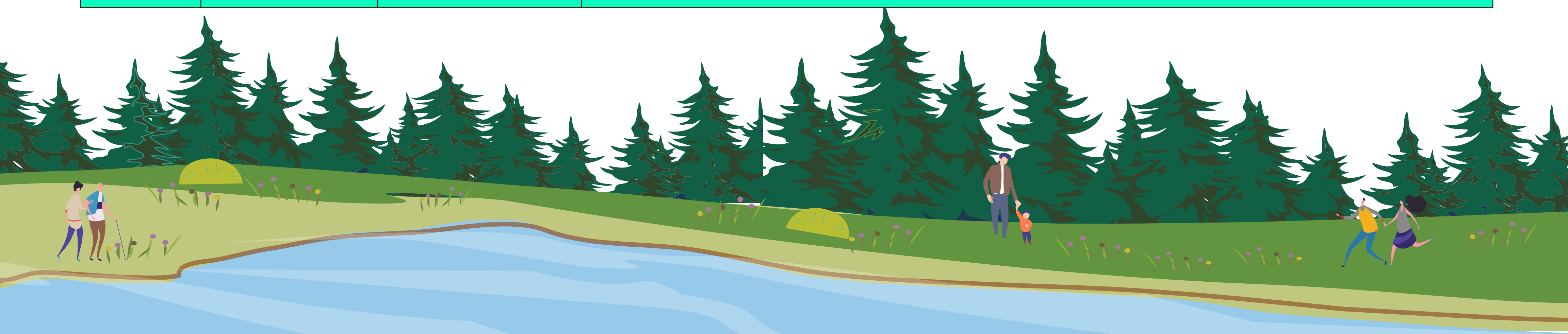
- Goal: Provide outreach to community members about bogs and these unique wetlands that are prevalent in Sammamish. How did they form? What benefits do they provide for the environment (habitat, surface water quality, flow control)? What are the interesting and unique plants and organisms that live in bogs?



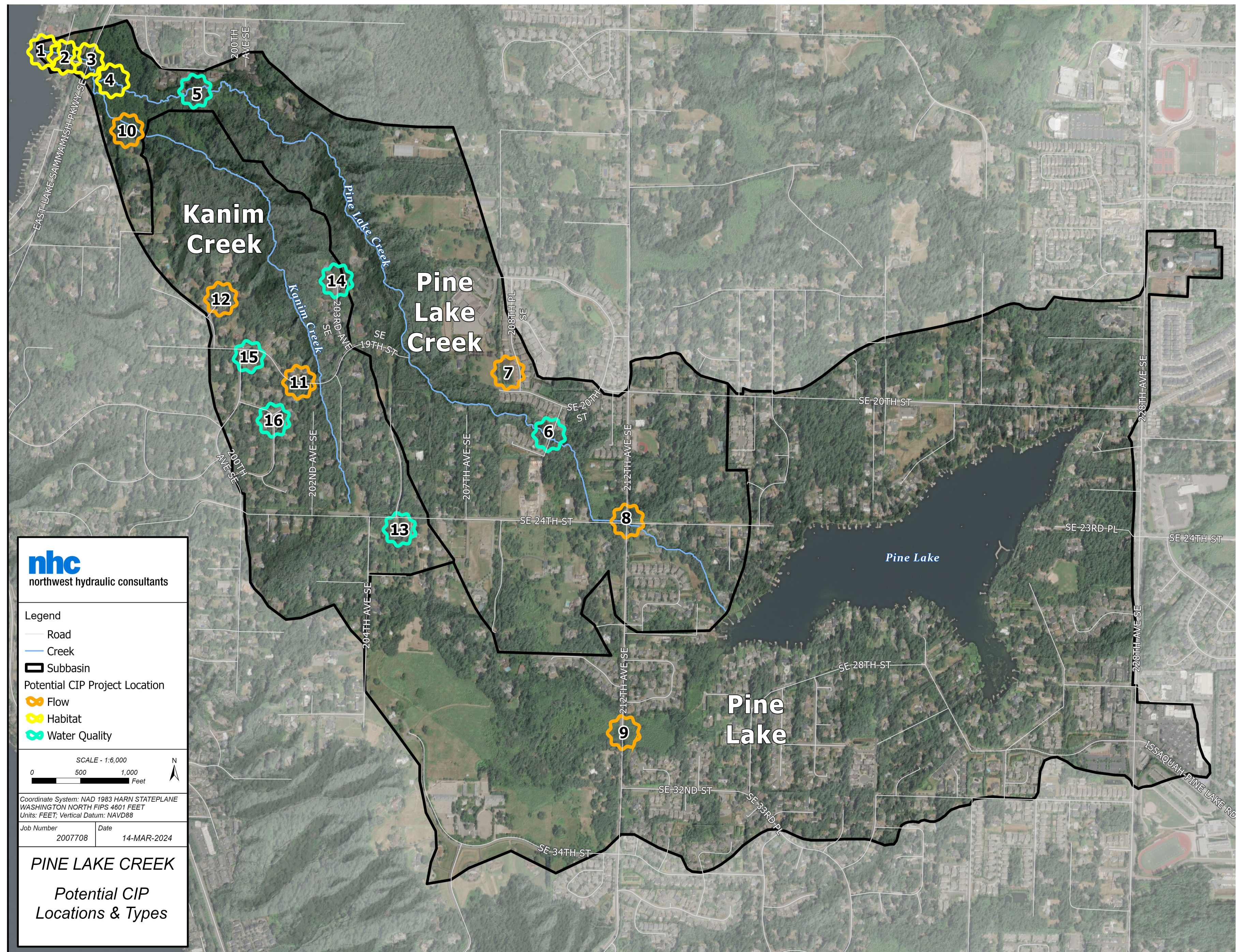
POTENTIAL KANIM CREEK PROJECTS



PROJECT #	PRIMARY BENEFIT	SECONDARY BENEFIT	PROJECT DESCRIPTION
11	Flow	Water Quality	Reroute stormwater system to discharge at SE 19th crossing.
12	Water Quality	Flow	Add water quality in advance of detention pipes at 198th PI SE.
13	Water Quality	Flow	Install stormwater facility along SE 24th St to detain and treat street runoff.
14	Water Quality		Install WQ and/or add'l flow control on 203rd Ave SE upstream of existing facility.
15	Water Quality		Install WQ and/or add'l flow control upstream of existing detention pipes in Loree Estates.
16	Water Quality		Install WQ and/or add'l flow control upstream of existing detention pipes in Sammamish Woods Div 3.



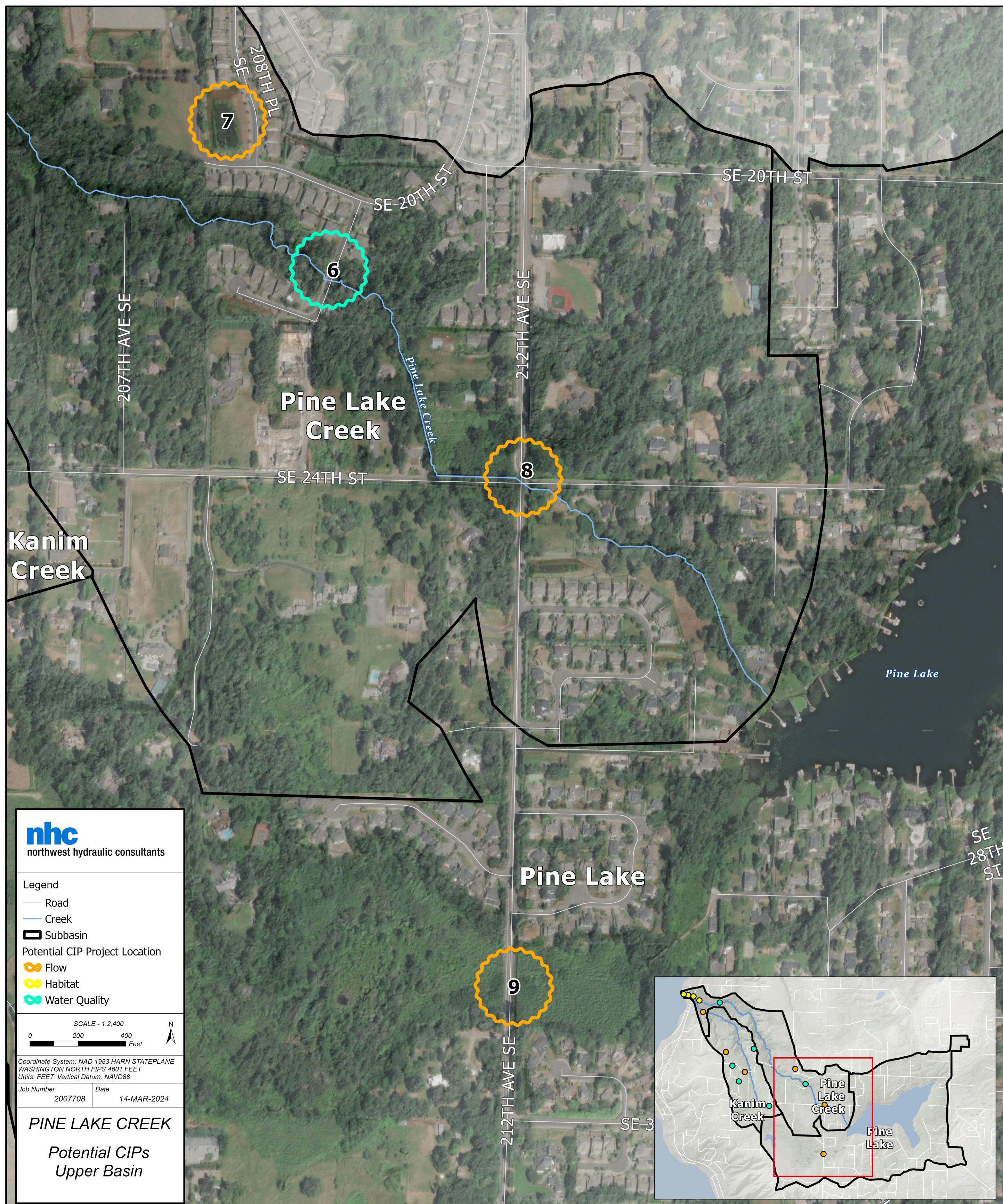
BASINWIDE POTENTIAL PROJECTS



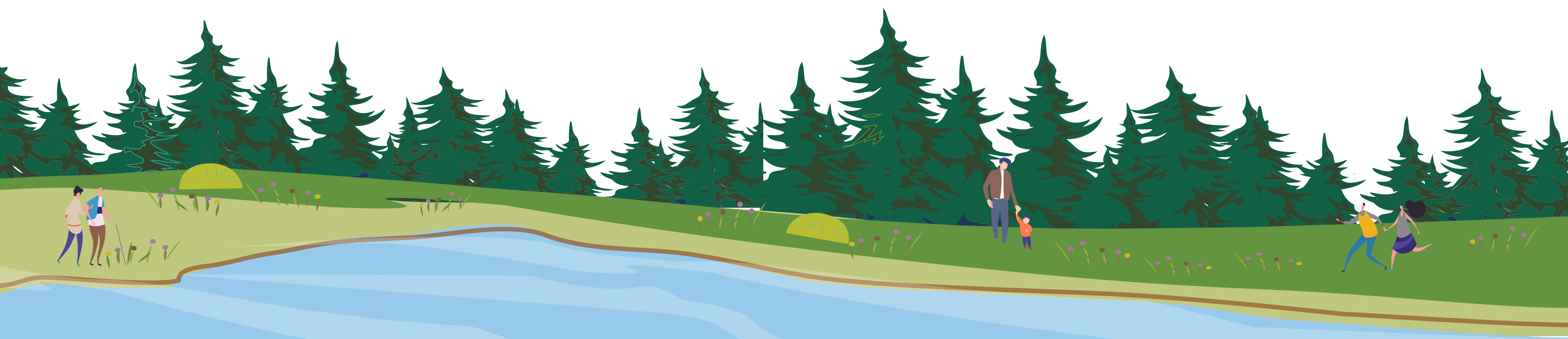
PROJECT #	BENEFIT	PROJECT DESCRIPTION
1	Habitat	Restore Pine Lake Creek habitat from Shore Lane culvert to lake.
2	Habitat	Replace Shore Lane culvert to improve fish passage and flow conveyance.
3	Habitat	Replace ELSP culvert to improve fish passage and flow conveyance.
4	Habitat	Manage sediment input and restore stream habitat upstream of ELSP.
5	Water Quality	Reduce bank erosion and restore sustainable channel near Ashton Woods.
6	Water Quality	Remove sediment at bridge abutments.
7	Flow	Retrofit detention pond to increase flow control and accommodate future growth.
8	Flow	Improve drainage in vicinity of 212th Ave SE and SE 24th St intersection.
9	Flow	Expand conveyance to reduce road overtopping along 212th Ave SE.
10	Flow	Replace culvert under trail to improve flow conveyance and fish passage.
11	Flow	Reroute stormwater system to discharge at SE 19th crossing.
12	Flow Control	Add water quality in advance of detention pipes at 198th Pl SE.
13	Water Quality	Install stormwater facility along SE 24th St to detain and treat street runoff.
14	Water Quality	Install WQ and/or add'l flow control on 203rd Ave SE upstream of existing facility.
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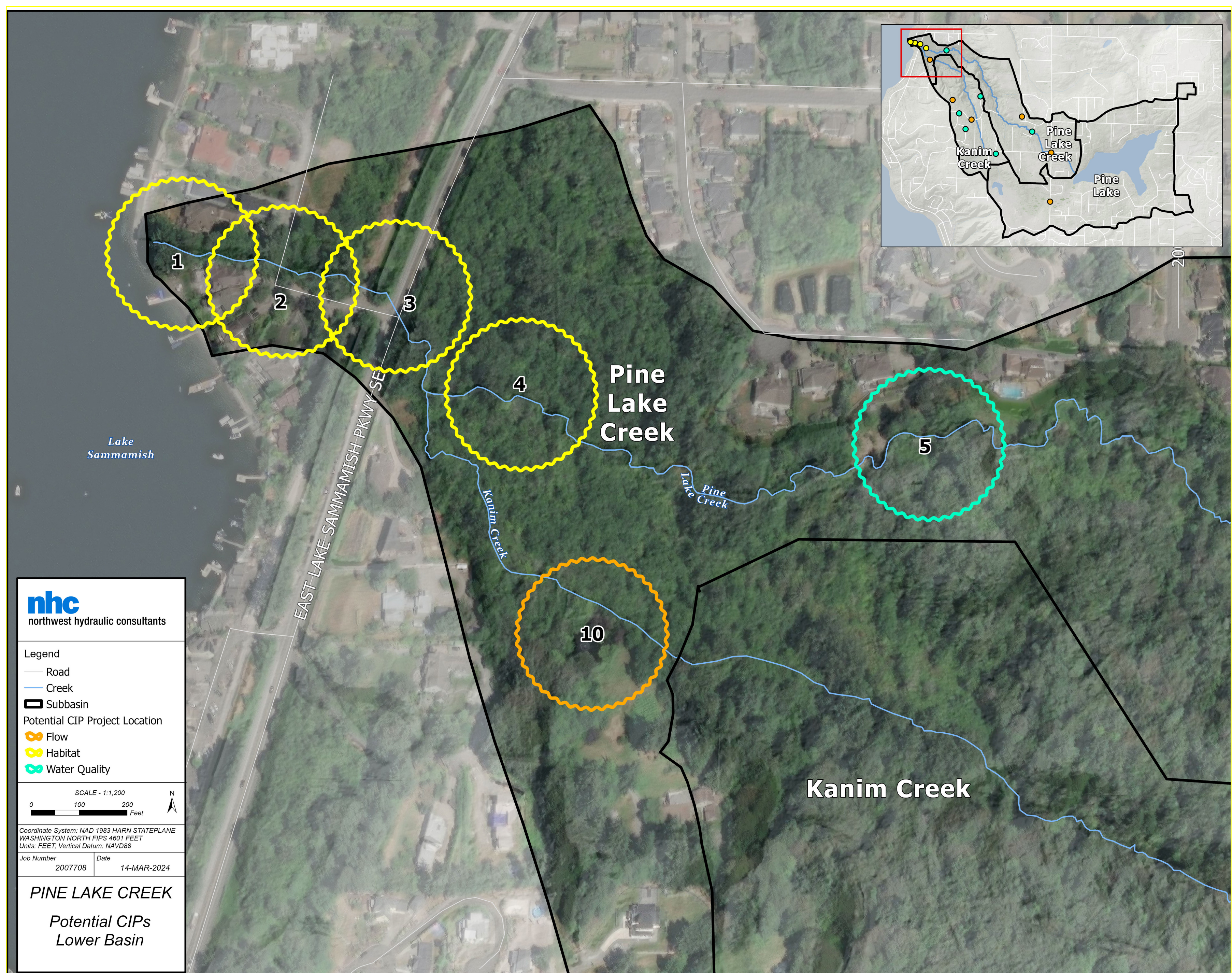
POTENTIAL PINE LAKE CREEK PROJECTS (UPPER BASIN)



PROJECT #	PRIMARY BENEFIT	SECONDARY BENEFIT	PROJECT DESCRIPTION
6	Water Quality	Habitat	Remove sediment at bridge abutments.
7	Flow	Water Quality	Retrofit detention pond to increase flow control and accommodate future growth.
8	Flow	Habitat	Improve drainage in vicinity of 212th Ave SE and SE 24th St intersection.
9	Flow	Habitat	Expand conveyance to reduce road overtopping along 212th Ave SE.



POTENTIAL PINE LAKE CREEK PROJECTS (LOWER BASIN)



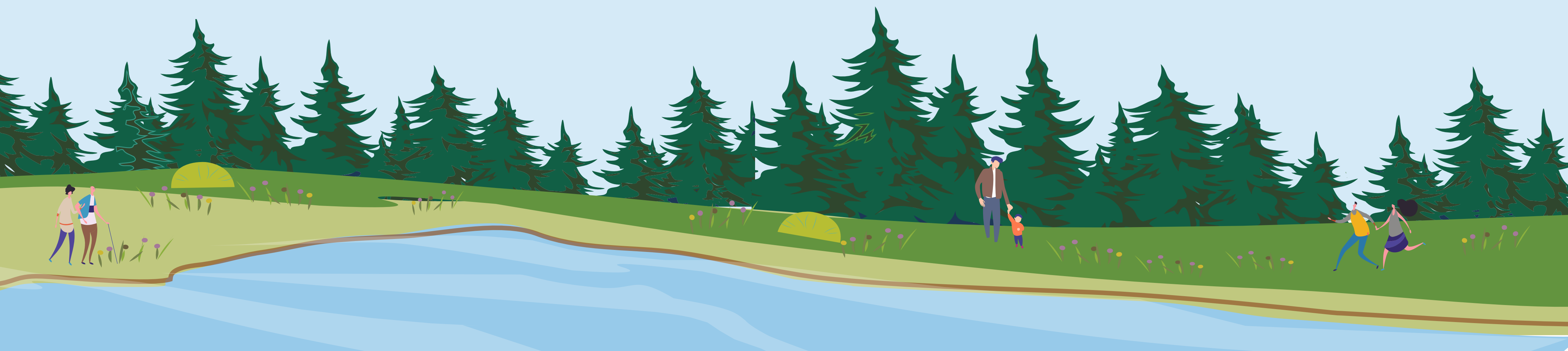
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3	Habitat	Flow	Replace ELSP culvert to improve fish passage and flow conveyance.
4	Habitat		Manage sediment input and restore stream habitat upstream of ELSP.
5	Water Quality	Habitat	Reduce bank erosion and restore sustainable channel near Ashton Woods.
10	Flow	Habitat	Replace culvert under trail to improve flow conveyance and fish passage.



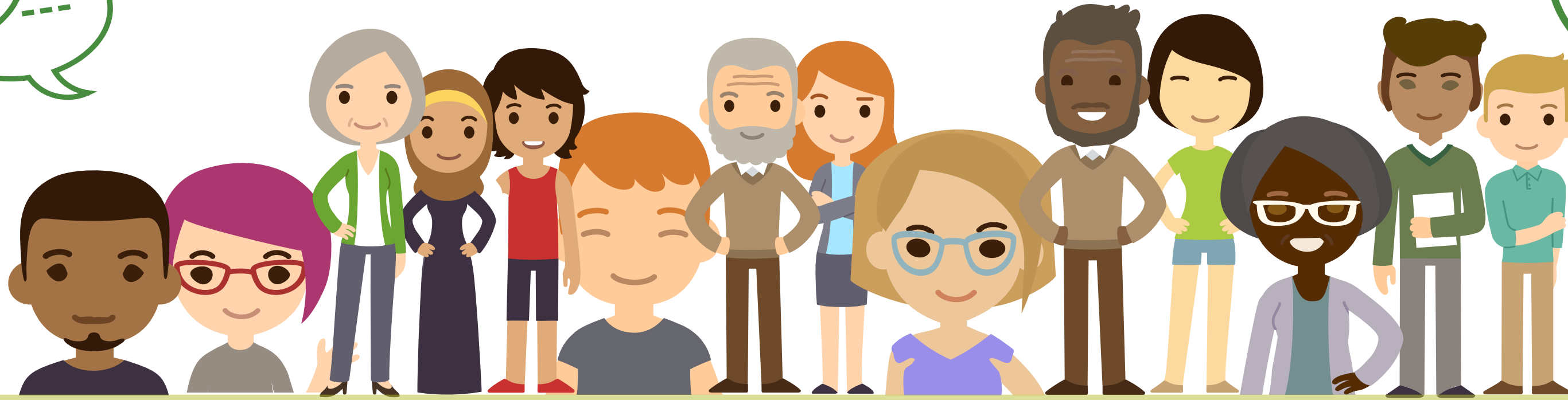
WHAT ELSE?

What are your ideas for strategies and actions?

Use sticky notes to write a comment and then place them on this board.



STAY IN TOUCH!



Tell us what you think!

Thank you so much for visiting today and helping us improve and protect Pine Lake Creek Basin. Here are some ways to learn more and stay engaged:

VISIT THE WEBSITE



- Learn more about the Pine Lake Creek Basin Project, input opportunities, get project updates!
- <https://www.sammamish.us/government/public-works/stormwater/storm-and-surface-water-projects/>



CHECK OUT OUR STORYMAP

- Scan the QR code for more project information



FOLLOW ON SOCIAL MEDIA

- City of Sammamish - Government
- @CityofSammamish

