

# City of Sammamish Zackuse Basin Plan Public Meeting #2

*Sammamish City Hall  
August 1, 2018*



Project Manager: Danika Globokar,  
DGlobokar@Sammamish.us

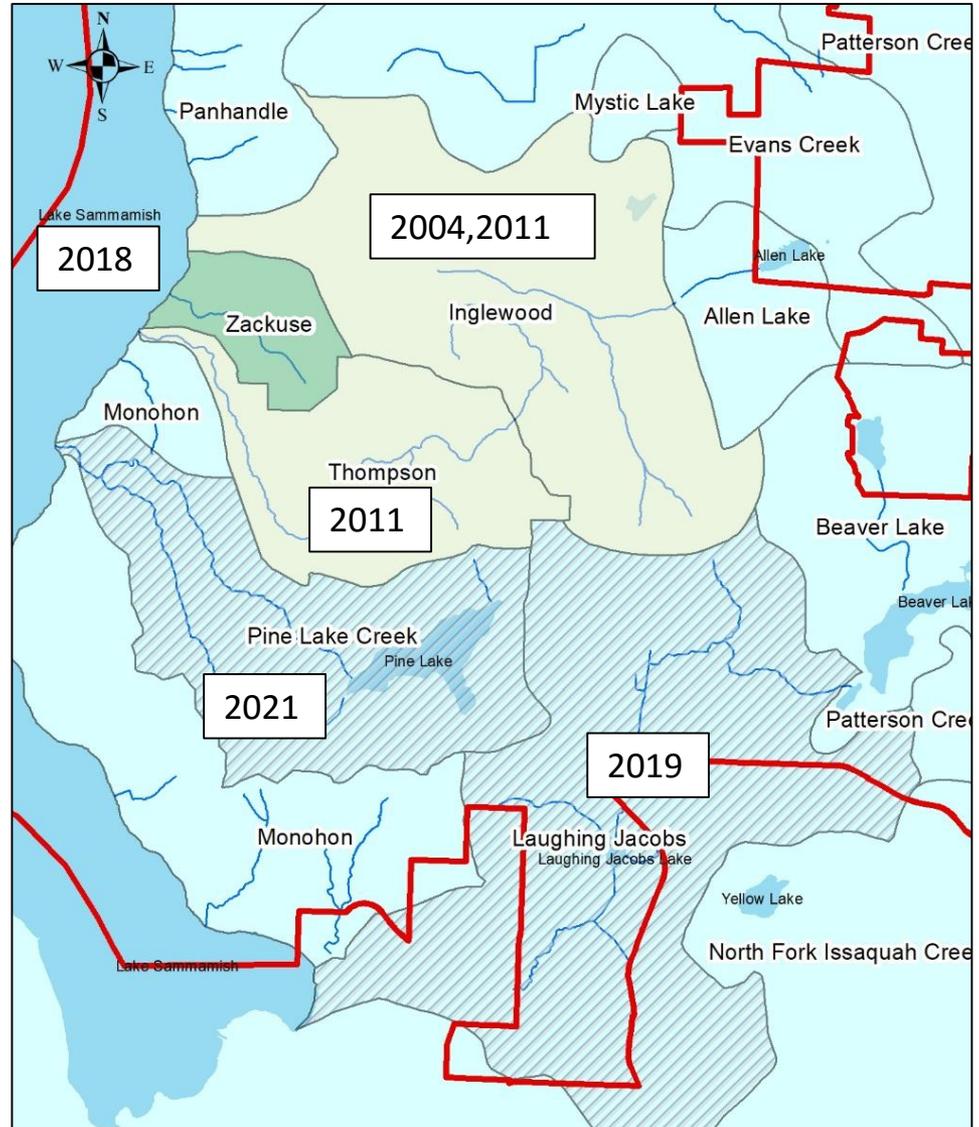
---

# Agenda

1. Basin Planning Refresher
2. Schedule Update
3. Preliminary Results (field, model, open house, survey results)
4. Surface Water Capital Project Prioritization Criteria
5. Recommended Projects
6. Answer questions

# Basin Planning – Refresher!

- Basin = watershed.
- An area of land where water collects and drains off into a *common outlet*, such as into a river or lake.
- Multiple basins in Sammamish
- Purpose = ID surface water problems and solutions
- Start with Zackuse!
  - Template for future basins
  - Establish project priorities
  - Prioritize City resources



# Zackuse Basin Project Overview and Timeline



# Field Investigation

## Stream Walk

- *Physical channel conditions*
- *Hillslope conditions*
- *Fish passage*
- *Wetlands*
- *Biological conditions*



## Upland Assessment

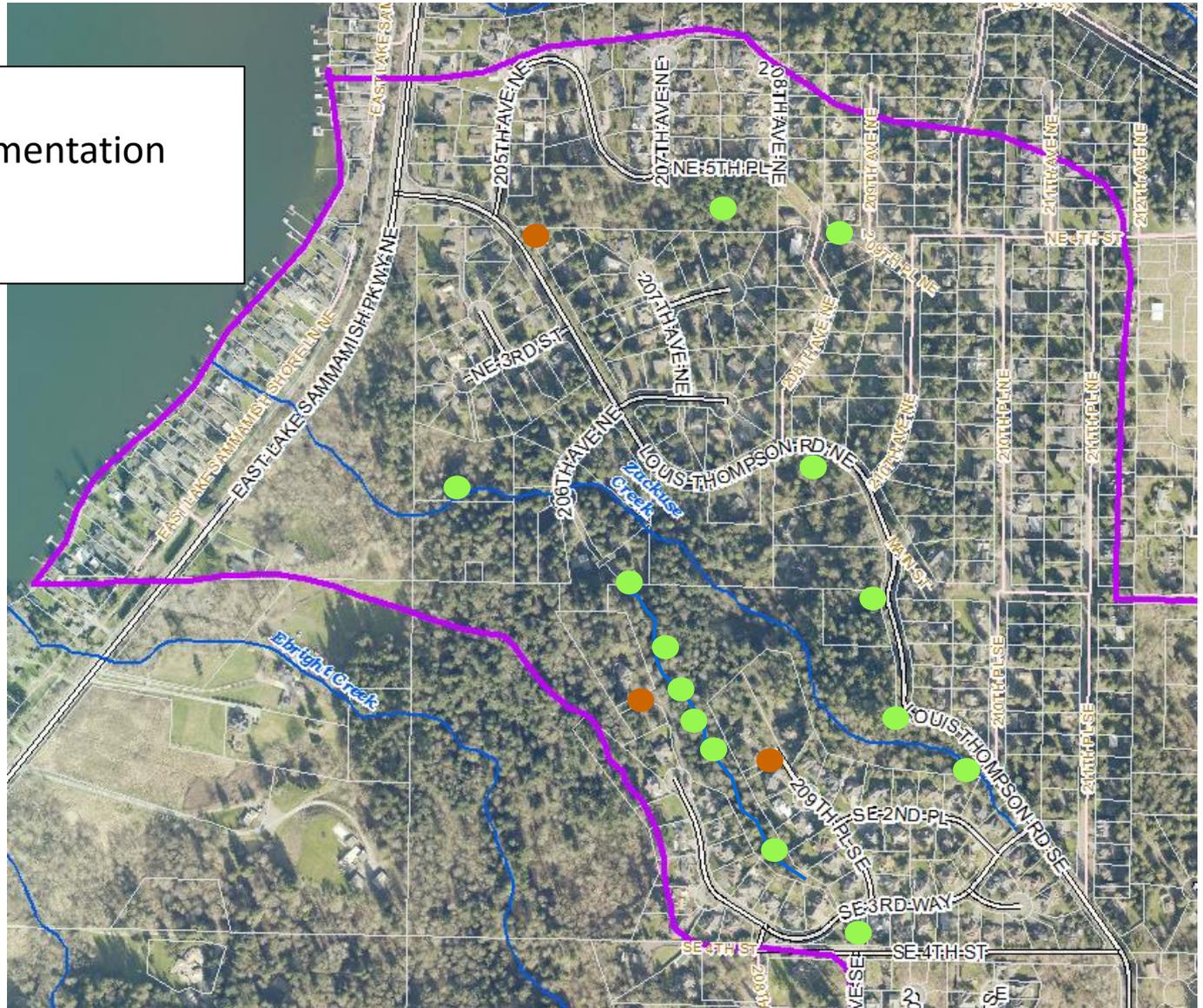
- *Storm drainage conveyance*
- *Stormwater facilities*
- *Basin boundaries*
- *Potential wetlands*

# Field Photos- South Tributary



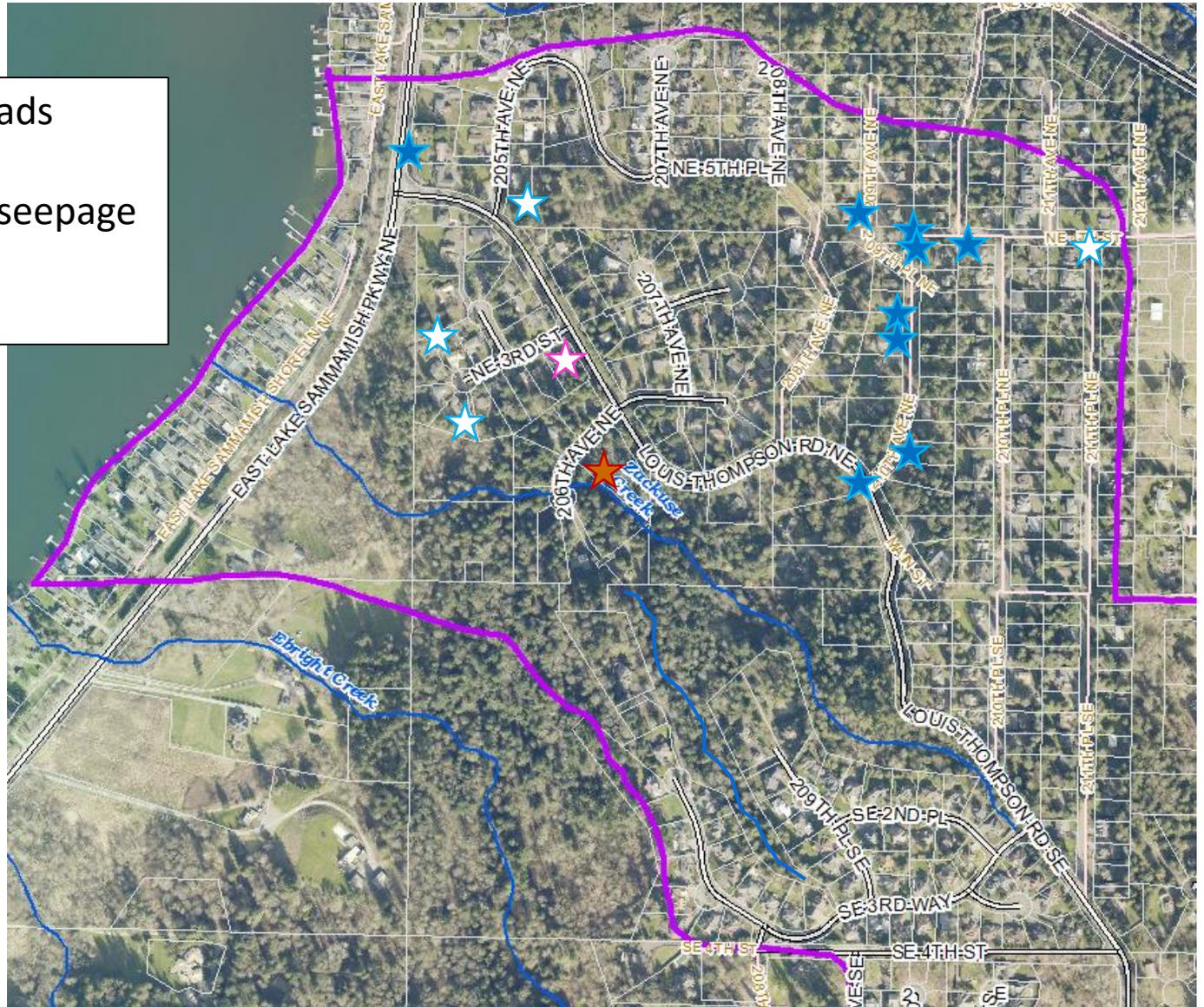
# Drainage Problems ID'd from Field Walk

- Field study
  - Erosion/sedimentation
  - Facility Issue

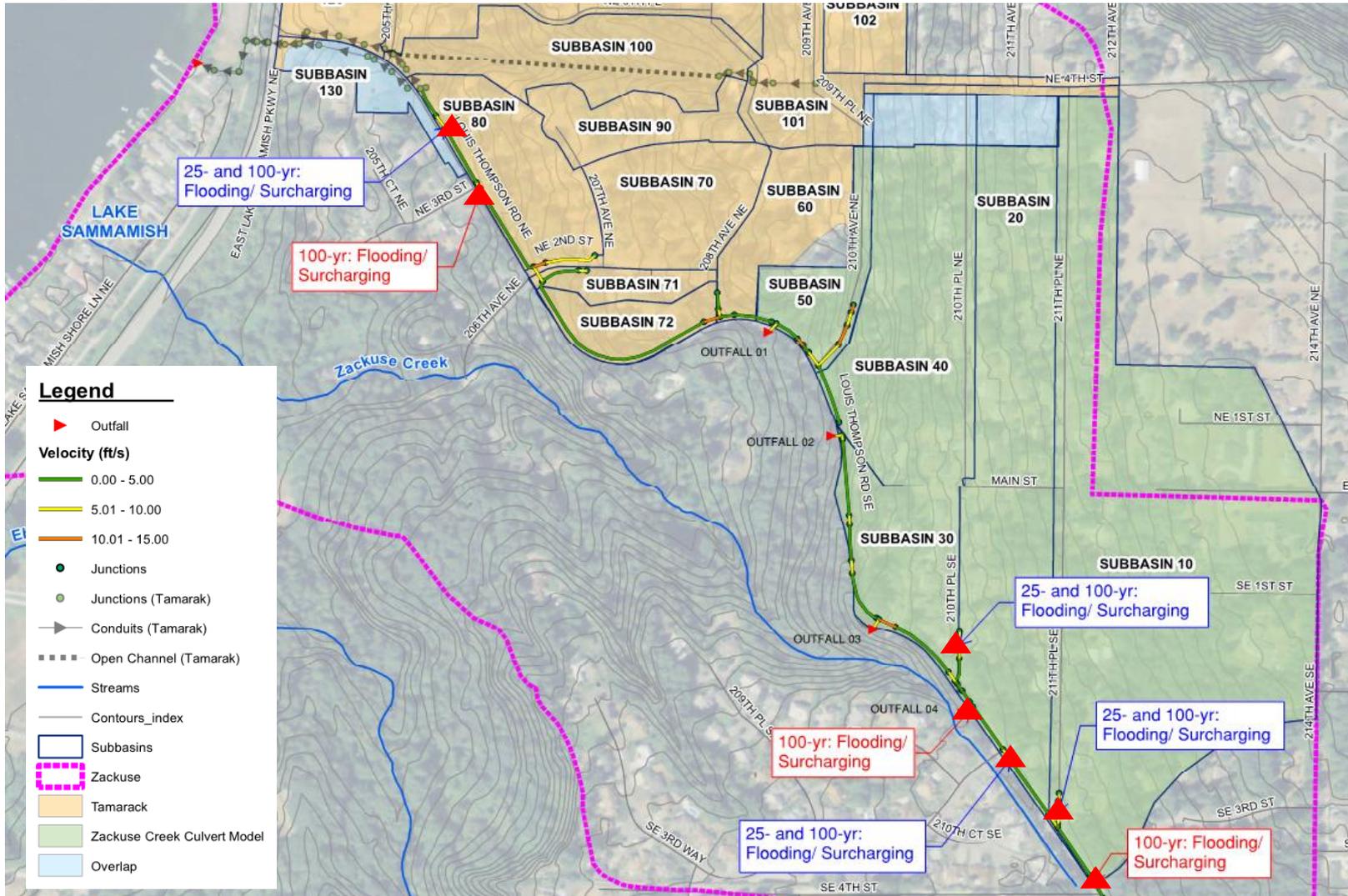


# Location of Citizen-Reported Problems

- ★ Water over roads
- ★ Sinkholes
- ★ Groundwater seepage
- ★ Landslides

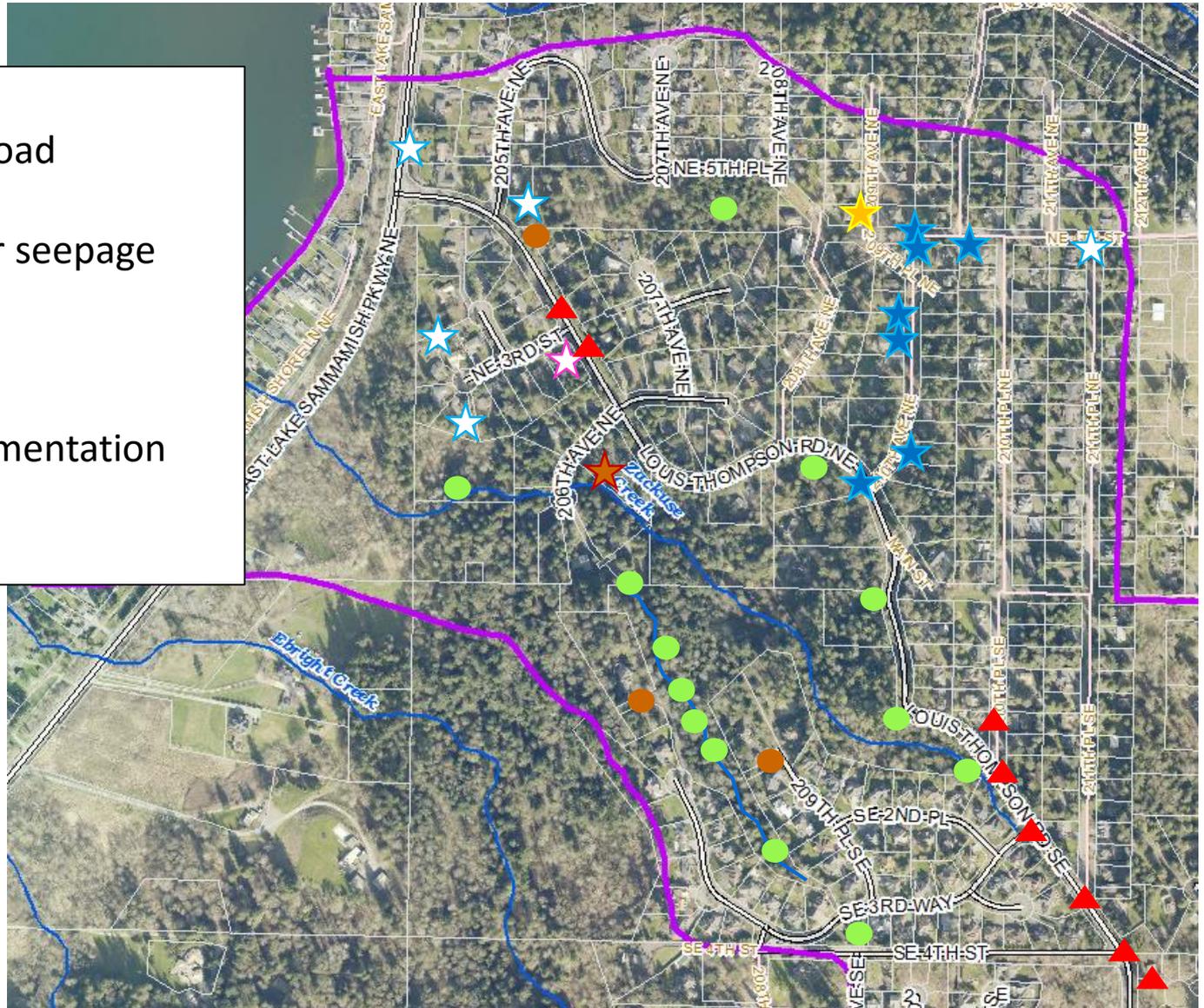


# Louis Thompson Road Hydraulic Modeling Results



# All Drainage Problems

- Citizen Reported
  - ★ Water over road
  - ★ Sinkhole
  - ★ Groundwater seepage
  - ★ Landslide
- ▲ Modeling results
- Field study
  - Erosion/sedimentation
  - Facility Issue



# Summary of Problems

## Stream issues

- *Channel incision*
- *Sedimentation*



*Channel erosion on S. Tributary*

## Erosion/Slope Stability issues

- *Landslides*
- *Seeps*
- *Sinkholes*



*Landslide adjacent to Zackuse Creek*

## Stormwater Issues

- *Tamarack conveyance*
- *Infrastructure condition*
  - *Birdcage at 206<sup>th</sup>*
  - *Outfalls (Montage and Louis Thompson Rd)*
  - *Montage vault*
  - *Infiltration pond functionality*
- *Modeled flooding and surcharging on LT Rd.*



*Sheet flow on 210<sup>th</sup> Ave NE in Tamarack*

## Habitat/Aquatic health issues

- *Fish passage*
- *Invasive vegetation*
- *Water quality*

*206<sup>th</sup> Ave NE culverts*



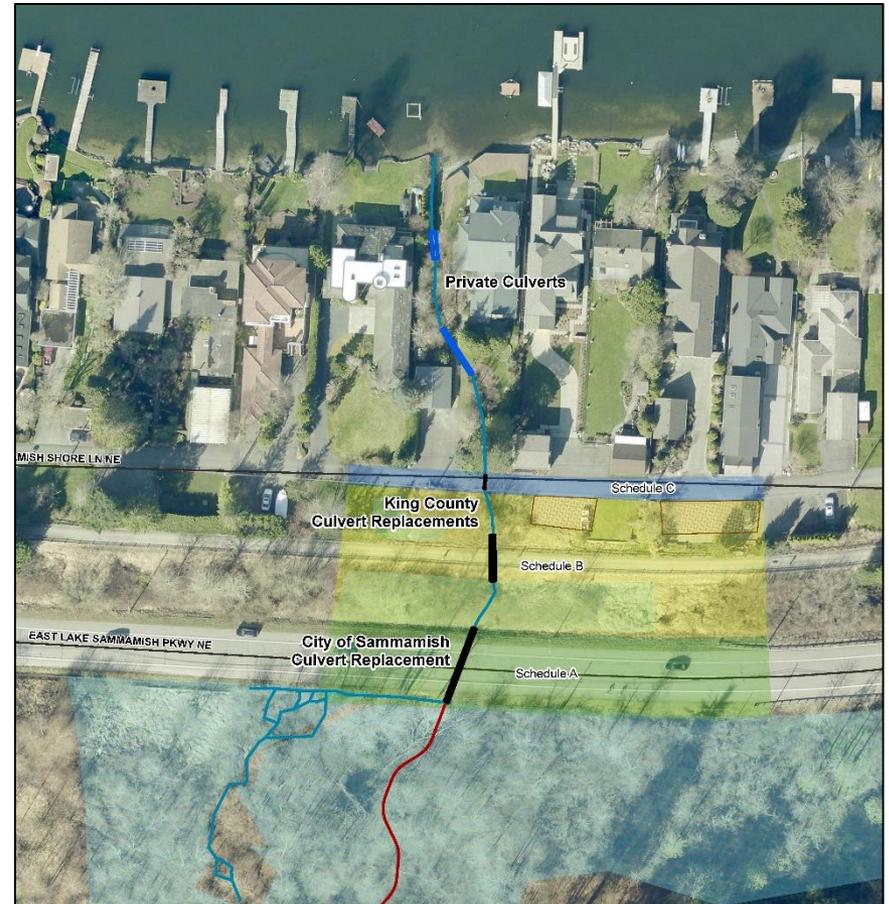
# Yes, we can make improvements in the Basin!

## 1) Strong Community Support for:

- *Natural resources protection and restoration*
- *Drainage improvements*

## 2) Existing Projects/initiatives that:

- *Improve fish passage and habitat*
- *Acquire property to protect resources*



*Zackuse Creek culvert replacement project and channel realignment at East Lake Sammamish Parkway*



# Open House Results- What We Heard...



Maintenance is a priority.



Concerns about landslides.



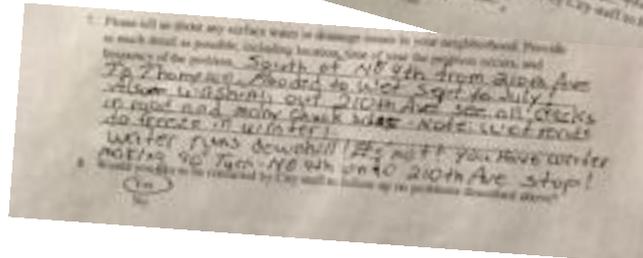
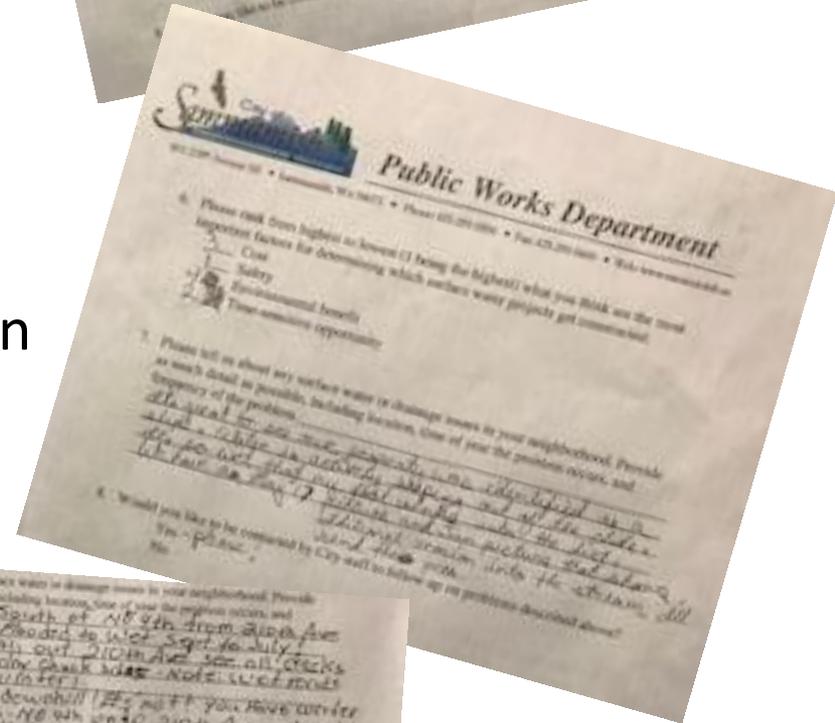
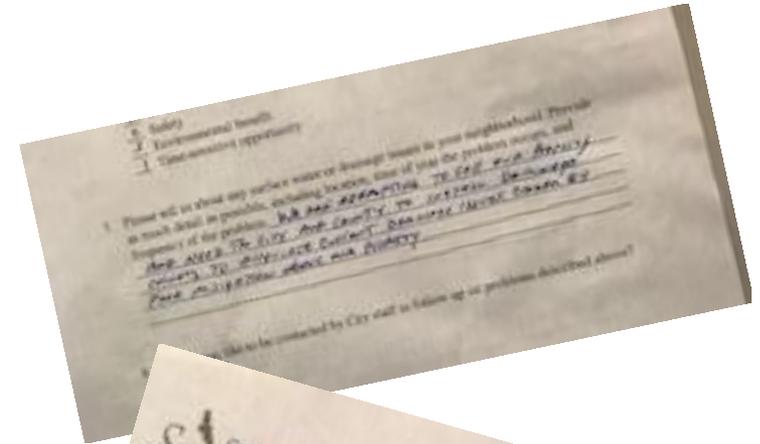
Ad-hoc nature of stormwater infrastructure.



Inadequate stormwater controls in older neighborhoods.

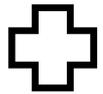


Groundwater seepage.



# Zackuse Basin Survey

(30 responses)



1. *Safety*



2. *Time sensitive opportunities*



3. *Environmental benefit*



4. *Cost*

# City-wide Survey

(>100 responses)



1. *Multiple surface water benefits  
(i.e., environmental benefits)*



2. *Improves facility maintenance*



3. *Safety*



4. *Maintain existing infrastructure*

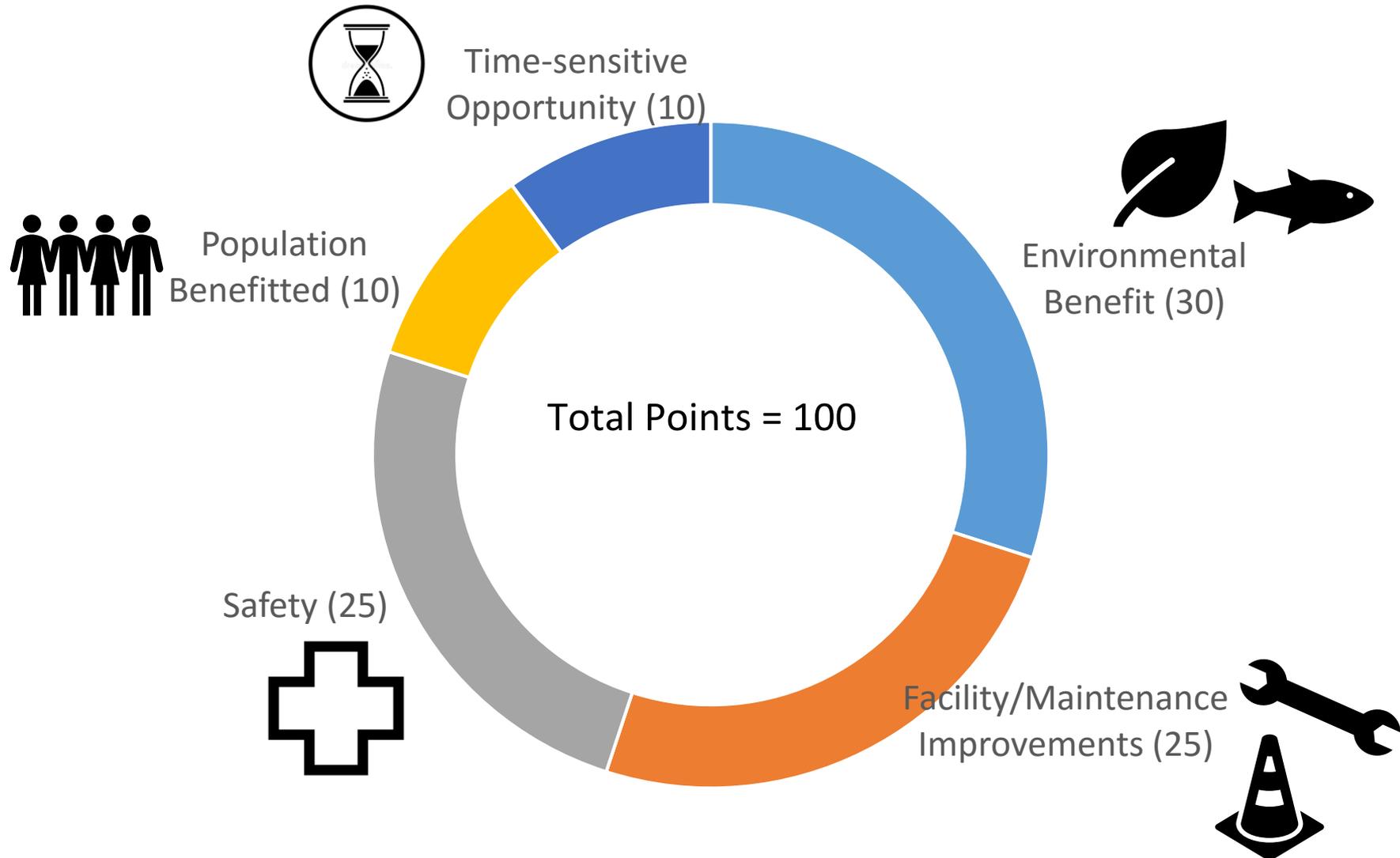


5. *Take advantage of time-sensitive  
opportunities*

Other criteria:

Accommodates growth adopted by plans,  
meets other City priorities, community  
interest, community benefit, cost

# Stormwater CIP Prioritization Criteria and Ranking



# Ranked Capital Projects (in order of priority)

Conceptual Designs Developed

Project ID	Score	Description	Addresses
Zack-CIP-1	65	Tamarack tightline (NE 4 <sup>th</sup> to Louis Thompson Rd)	Drainage issues in Tamarack.
Zack-CIP-2	55	Retrofit West Montage neighborhood	Stream channel erosion and aquatic habitat.
Zack-CIP-3	45	Develop solutions for sheet flow at 210 <sup>th</sup> Ave NE and Louis Thompson Rd.	Drainage, maintenance and safety issues on 210 <sup>th</sup> Ave NE and Louis Thompson Rd.
Zack-CIP-4	45	Retrofit East Montage neighborhood	Maintenance issues in stormwater infrastructure.
Zack-CIP-5	45	Tightline stormwater on Louis Thompson Rd.	Maintenance issues.
Zack-CIP-6	35	Intercept groundwater in ditch adjacent to East Lake Sammamish Parkway north of Louis Thompson Rd.	Safety concern.
Zack-CIP-7	35	Upsize culverts on 210 <sup>th</sup> PI SE and 211 <sup>th</sup> PI SE	Surcharging at culverts during high flows.
Zack-CIP-8	30	Fix broken stormwater pipe under Louis Thompson Rd. near 211 <sup>th</sup> PI SE.	Infrastructure and potential safety concern.
Zack-CIP-9	30	Flow control/water quality facility near 210 <sup>th</sup> Ave NE and Louis Thompson Rd.	Water quality and conveyance.
Zack-CIP-10	20	Channel stabilization upstream of dog-leg in Zackuse Creek.	Realignment of channel to a more stable form.
Zack-CIP-11	20	Address flooding at Zackuse headwater wetlands	Flooding on 212 <sup>th</sup> Ave SE.

# Ranked Programmatic Projects

	Project ID	Description	Addresses
	Zack-Hab-1	Instream and riparian habitat improvements- mouth to Shore Lane Dr.	Habitat improvements at the mouth of Zackuse Creek.
	Zack-Hab-2	Instream and riparian habitat improvements in vicinity of 206 <sup>th</sup> Ave NE.	Habitat improvements in association with Zack-Hab-1.
	Zack-Oper-1	Conduct periodic culvert and ditch cleaning on Louis Thompson Rd.	Conveyance.
	Zack-Oper-2	Expose buried catch basins at the intersection of Louis Thompson Rd. and East Lake Sammamish Parkway.	Maintenance access.
	Zack-Pol-1	Include Zackuse corridor/206 <sup>th</sup> Ave culvert replacement in long-term property acquisition plan	Habitat connectivity and open space.
	City-Pol-1	Develop stormwater recommendations (code, policy, etc.) to address climate change readiness.	Potential impacts of climate change.
	City-Prog-1	Improve city maps and public accessibility.	Public outreach and awareness.
	Zack-WQ-1	Remove trash and debris in Zackuse Creek.	Water quality.
	Zack-WQ-2	Implement recommendations for water quality monitoring in Zackuse Creek in City water quality monitoring plan.	Water quality.
	City-WQ-1	Identify opportunities for water quality enhancements and improvements.	Water quality.



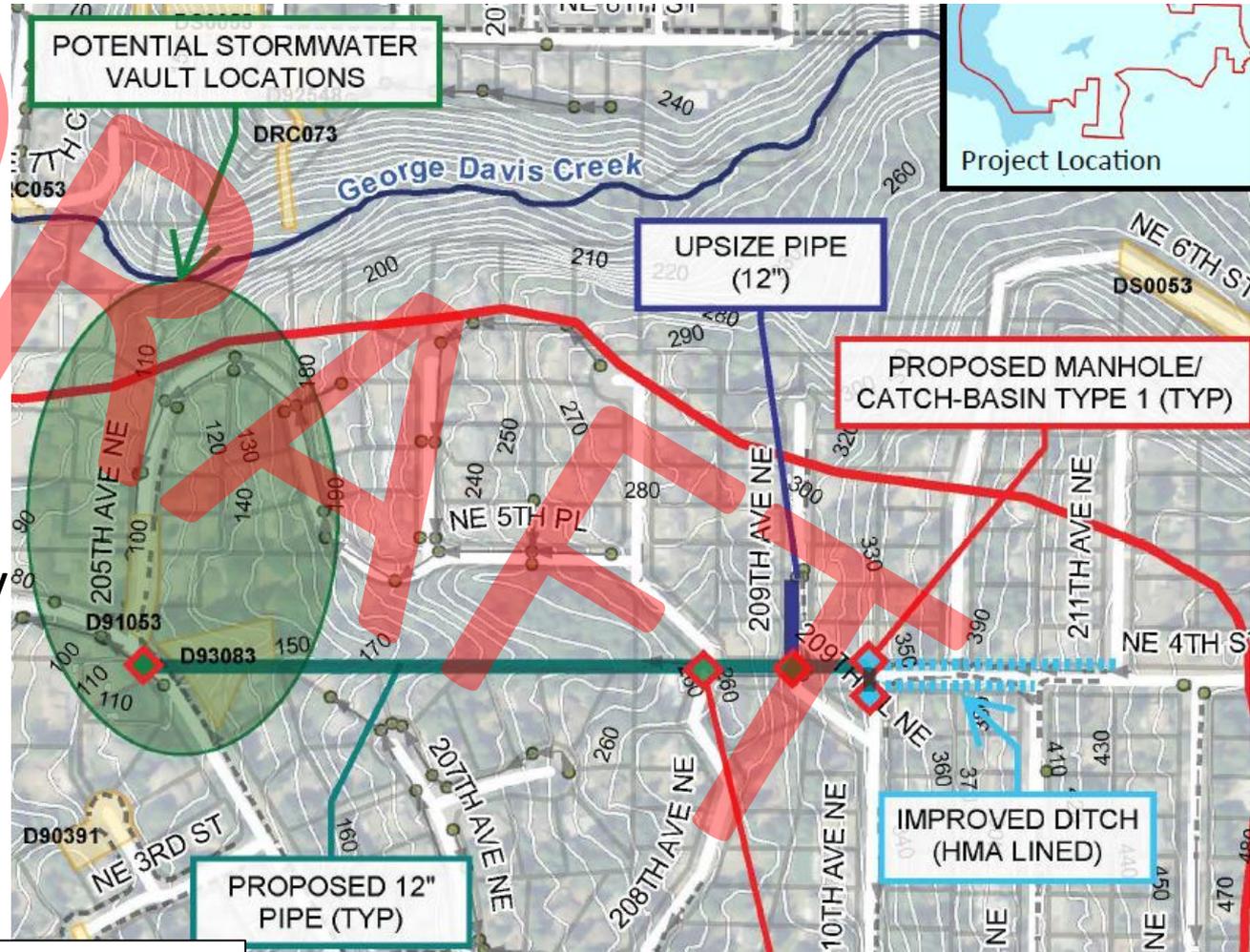
# Closer Look at: Zack-CIP-1: Tamarack Tightline

## Benefits

- Solves many drainage issues for residents

## Challenges

- Private roads
- Private property
- \$\$\$



Project Prioritization Score: <b>65</b> out of 100 possible points.	
Environmental Benefit = <u>15</u>	Facility/Maintenance Improvements = <u>20</u>
Safety = <u>20</u>	Population Benefitted = <u>10</u>
Time-Sensitive Opportunity = <u>0</u>	

# Closer Look at: Zack-CIP-3: 210<sup>th</sup> Sheet Flow

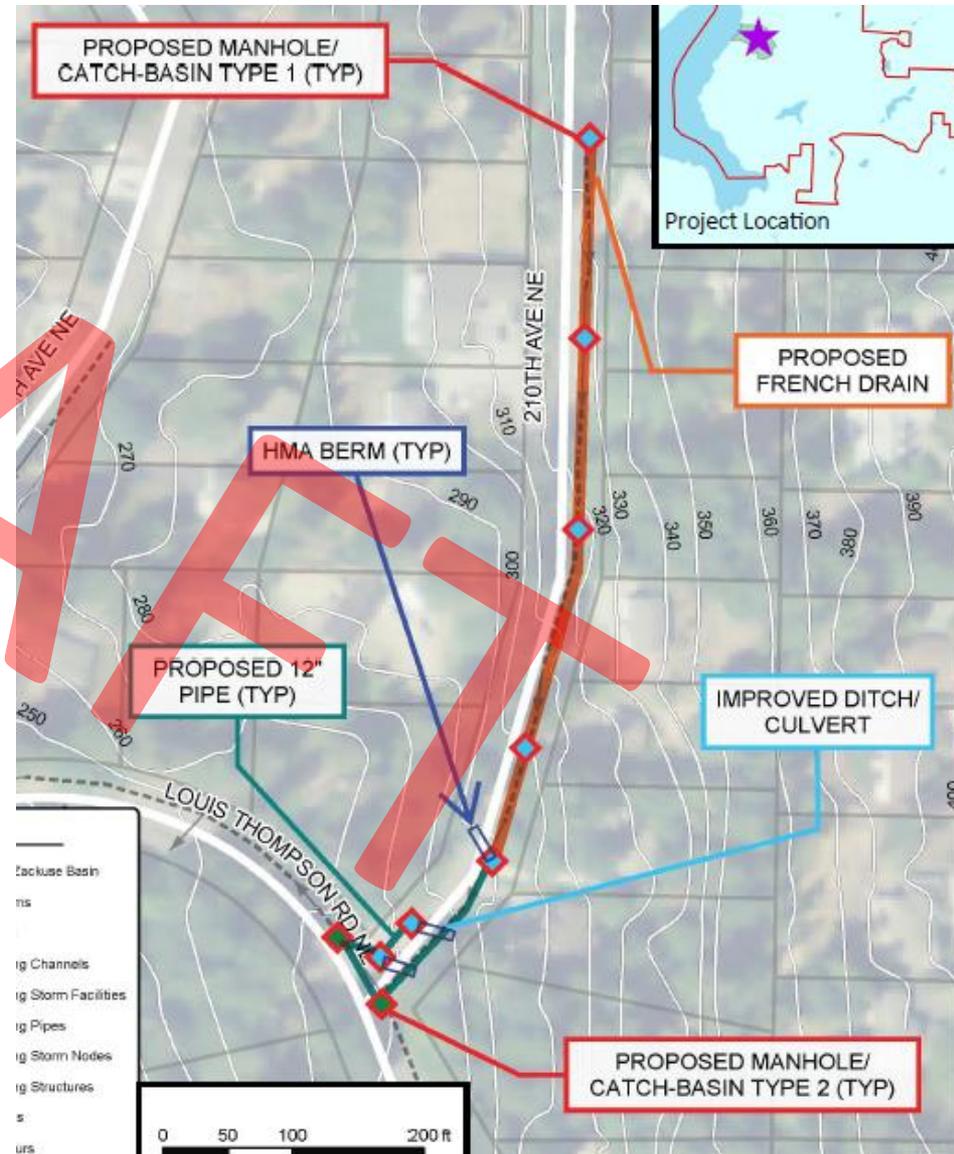
## Benefits

- Improves intersection safety
- Reduces maintenance on LT Rd.

## Challenges

- Private roads
- Private property
- Maintenance

Project Prioritization Score: **45** out of 100 possible points.  
Environmental Benefit = 0      Facility/Maintenance Improvements = 15  
Safety = 20      Population Benefitted = 10  
Time-Sensitive Opportunity = 0



---

# Next Steps

1. Finalize CIPs and Programmatic Projects
2. Complete Draft Basin Plan (Fall 2018)
3. Present findings to Planning Commission and City Council  
(Late 2018/Early 2019)

---

# Want more information? Here's how:

## 1. Capital Improvement Project Prioritization Criteria

- *Look at link below for June 12, 2018 City Council Meeting Notes for details on prioritization criteria*

<https://sammamishwa.civicweb.net/filepro/documents/19859>

## 2. Ranked Project Details

- View binders of project summary sheets and talk to one of us tonight.
- What impacts might these projects have on you?
- How might we minimize this impact?

Questions? Comments?

Thank you for coming!



Project Manager: Danika Globokar,  
DGlobokar@Sammamish.us