



Surface Water Design Manual Update  
and  
Low Impact Development Code Revisions

City Council

November 15, 2016



# Agenda

- ▶ Surface Water Design Manual Update
- ▶ Low Impact Development Code Revisions
- ▶ Next Steps
- ▶ Questions



# Surface Water Design Manual

- ▶ NPDES Permit requirement to adopt updated manual by December 31, 2016
- ▶ Recommend adoption of:
  - ▶ 2016 King County Surface Water Design Manual
  - ▶ Sammamish Addendum
  - ▶ SMC 13 – Surface Water Management



# Surface Water Design Manual – New Requirements

- ▶ Low Impact Development BMPs
- ▶ Landslide Hazard Drainage Areas – Drainage Review
- ▶ Stormwater Ponds – More Natural Looking

# Low Impact Development BMPs Required



Dispersion



Infiltration



Bioretention

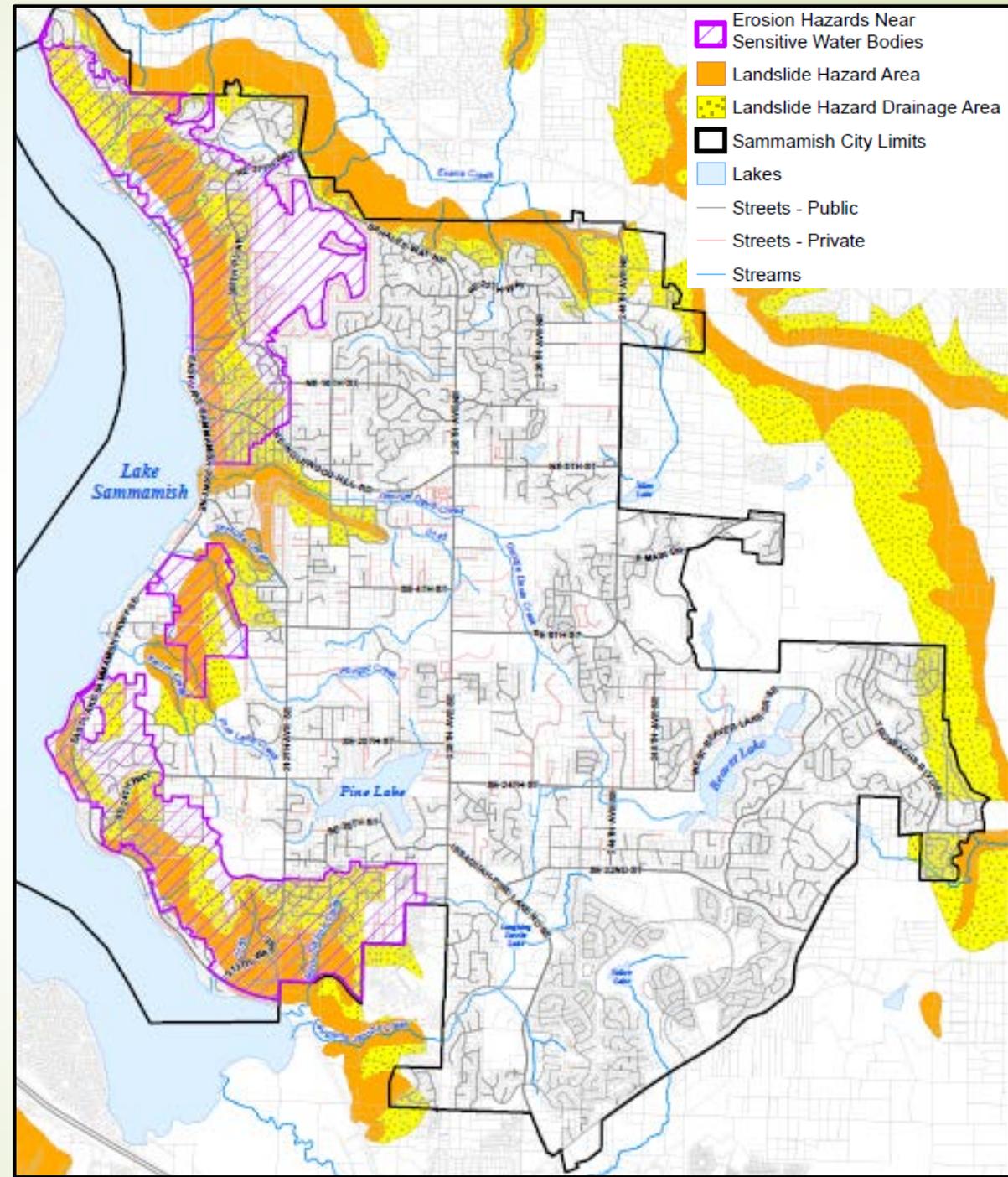


Porous Pavement



# Landslide Hazard Drainage Areas

Drainage review  
required for 500 SF or  
greater of new  
impervious surface



# Stormwater Ponds



Current Pond Design:

*Little or no landscaping*  
*Rectangular shaped*  
*Not visually pleasing*



New Pond Design:

*Incorporates native plants*  
*Curvilinear design*  
*Low banks with minimal walls*



# Low Impact Development Related Code Revisions

- NPDES Permit requirement to adopt updated LID codes by December 31, 2016
- Recommend adoption of code revisions:
  - SMC 16 – Buildings and Construction
  - SMC 21A – Development Code
  - SMC 21B – Town Center Development Code



# Low Impact Development Code Revisions

- Encourage bioretention and porous pavement in parking lots
- Revised definitions for consistency
- SMC 21A.85 LID Code



# Low Impact Development Code Revisions (cont)

## SMC 21A.85 LID Code Changes

- ▶ Continue incentives to encourage implementation of LID principles
- ▶ Eliminate credit for LID BMPs that are now required in the Surface Water Design Manual
- ▶ Allow graduated point scale for partial implementation

# Example of LID Credits and Incentives

**20 acre site - pre-development**

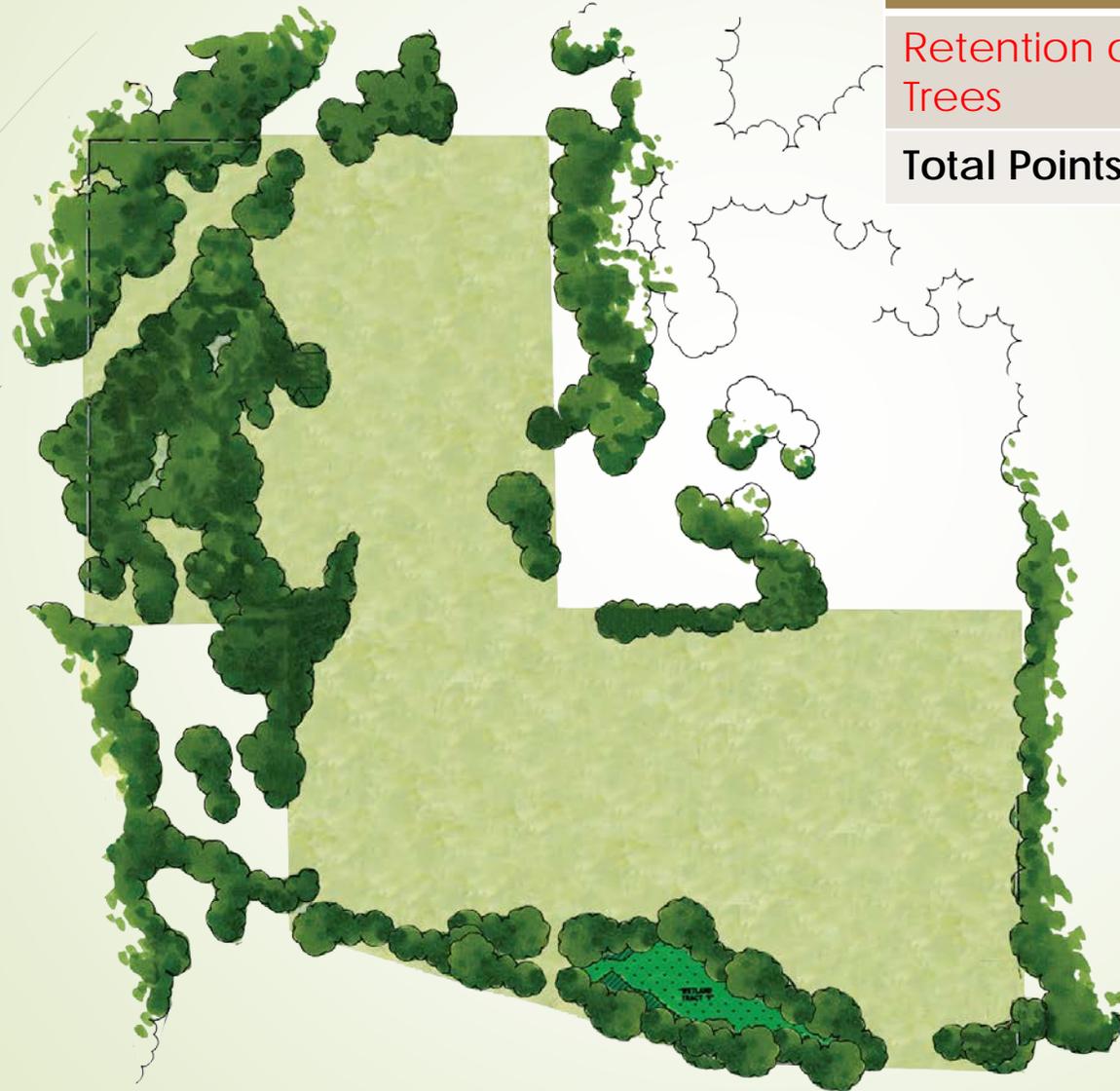


# Typical Development

**R-6, 100 Lots, 35% Tree Retention per SMC 21A.37  
LID BMPs per the Surface Water Design Manual**

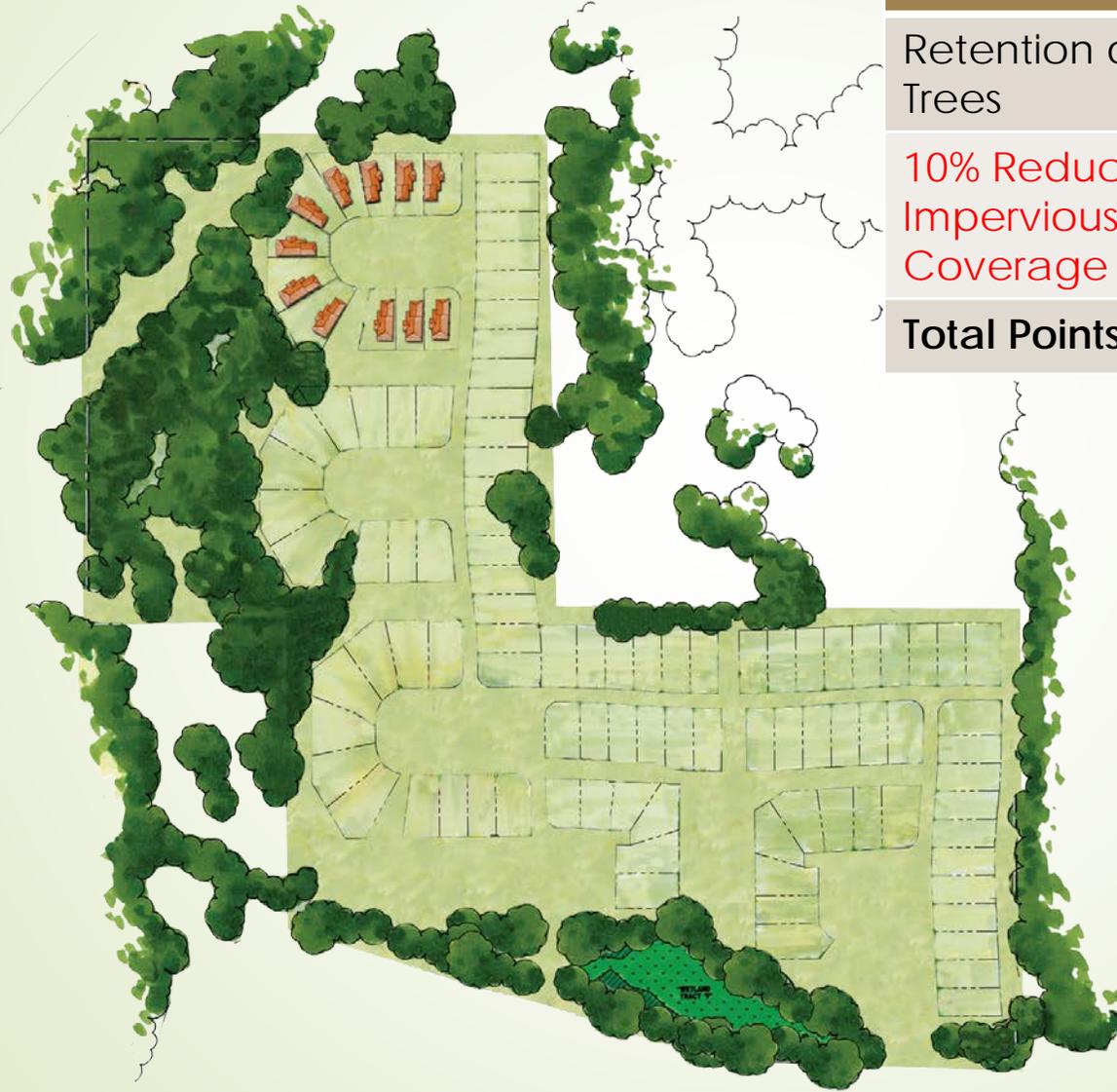


# LID Development using Incentives



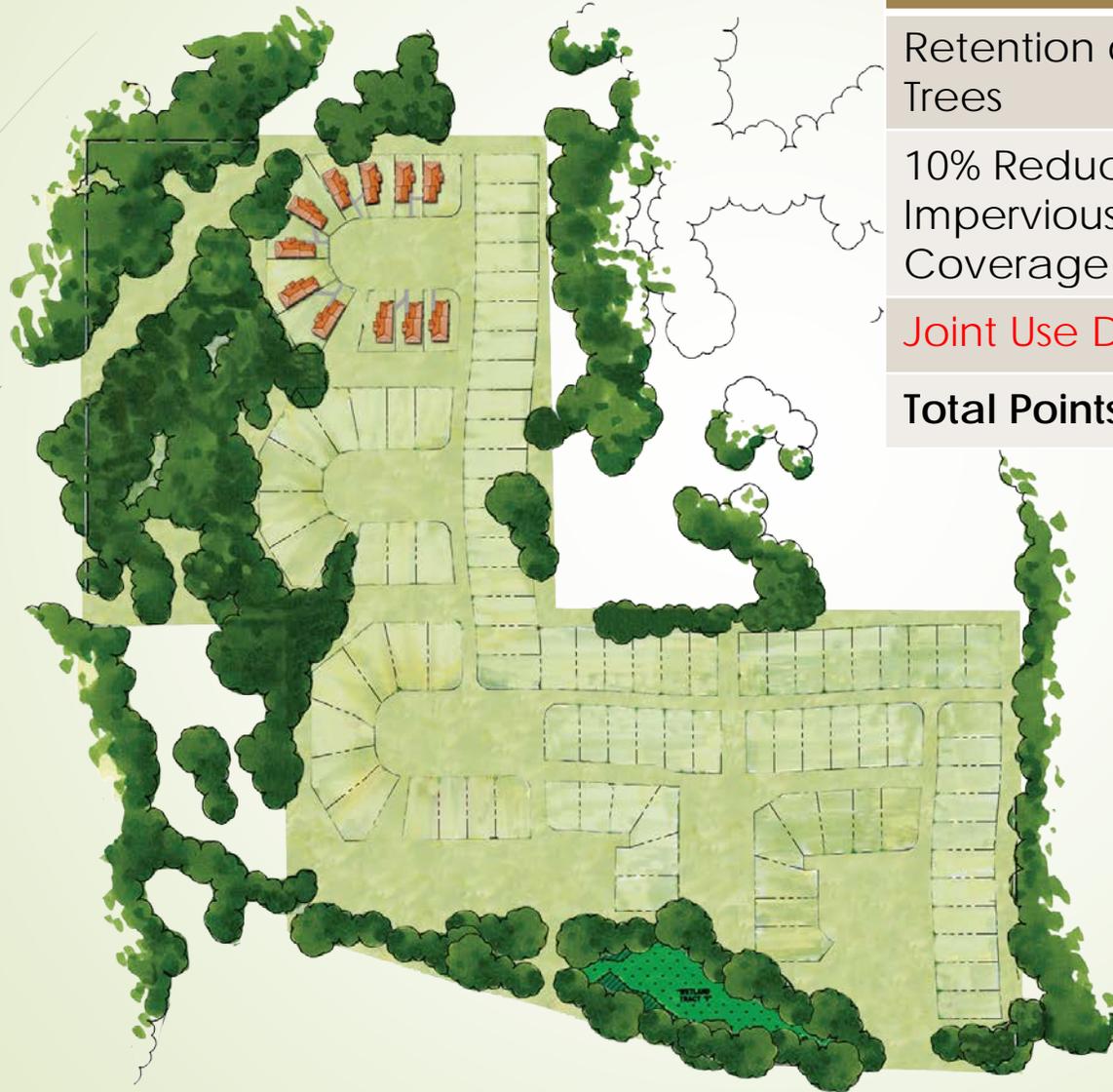
Technique	Points
Retention of 30% Additional Trees	15
<b>Total Points</b>	<b>15</b>

# LID Development Using Incentives



Technique	Points
Retention of 30% Additional Trees	15
10% Reduction in Impervious Surface Coverage	6
<b>Total Points</b>	<b>21</b>

# LID Development Using Incentives



Technique	Points
Retention of 30% Additional Trees	15
10% Reduction in Impervious Surface Coverage	6
Joint Use Driveways	6
<b>Total Points</b>	<b>27</b>

# LID Development Using Incentives



Technique	Points
Retention of 30% Additional Trees	15
10% Reduction in Impervious Surface Coverage	6
Joint Use Driveways	6
<b>Total Points</b>	<b>27</b>

3 Additional Lots

# Comparison



100 lots



103 lots using LID  
Incentives



# Next Steps

- ▶ 1<sup>st</sup> Reading/Public Hearing Dec 6
- ▶ 2<sup>nd</sup> Reading/Adoption Dec 13
- ▶ Changes Effective Jan 1, 2017
- ▶ Produce/Distribute Educational Materials 1Q17



Questions?





# Revised LID Codes

## Title 16 Buildings and Construction

- ▶ SMC 16.15 Clearing and Grading

## Title 21A Development Code

- ▶ SMC 21A.15 Technical Terms and Land Use Definitions
- ▶ SMC 21A.30 Development Standards – Design Standards
- ▶ SMC 21A.35 Development Standards – Landscaping and Irrigation
- ▶ SMC 21A.40 Development Standards – Parking and Circulation
- ▶ SMC 21A.85 Low Impact Development



# Revised Codes (cont)

## Title 21B Town Center

- ▶ SMC 21B.15 Technical Terms and Land Use Definitions
- ▶ SMC 21B.25 Development Standards – Density and Dimension
- ▶ SMC 21B.30 Development Standards – Design Requirements
- ▶ SMC 21B.35 Development Standards – Landscaping and Irrigation
- ▶ SMC 21B.85 Development Standards – Interim Stormwater Standards