Watershed-Based Planning Project

Planning Commission
March 18, 2015
What we will cover today

• Recap of February intro meeting
• Efforts over the last month – Final Draft Plan
• Presentation of Plan **Actions**
  – Actions for development standards
  – Actions for stormwater management
  – Actions for sensitive areas
• Feedback from Planning Commission
Recap - Project Background

- Urban flooding
- Grow in the right places
- Sensitive areas protection
Recap – Management Groups

1. Protect/Restore
2. Highest Conservation
3. Moderate Conservation
4. Lowest Conservation
5. Urban Development
Urban Development (Old Town)

**Management Recommendation**: Urban Development

**What Does This Management Recommendation Mean?**
This subbasin is an area of intense importance to watershed processes and can be targeted for intense urban development.

**Why is this the Management Recommendation?**
Composed of areas of the city, this subbasin is oriented toward importance and highest levels of development high impervious surface areas and altered convoluted of surface flows. As new development is redeveloped in the subbasin occurs, it should be paired with targeted restoration focused on improving Sequoia River conditions. Analysis results are detailed below.

**Surface Storage**
- Areas with subbasins or other storage features, such as ponds, can catch treated wastewater and prevent pollution.

**Brookfield (and Basal Amendments)**
- Areas with high impervious surface areas, such as basements and basements, can be prioritized for development.

**Pond and Wetland Habitat**
- Areas with low impervious surface areas, such as wetlands, can be prioritized for development.

**Knee Quarters**
- Areas with high impervious surface areas, such as basements and basements, can be prioritized for development.

**Subbasin Status**
- Areas with high impervious surface areas, such as basements and basements, can be prioritized for development.

**Preliminary Management Priorities and Objectives**
- Encourage high density development by eliminating new stream requirements and enforcement of water quality standards.
- Reduce impervious surfaces.
- Implement slow-release methods to improve flood control and better ground water conditions.

**Existing Land Use**
- Solar Power is the predominant land use, with some agricultural and residential uses.

**Existing Land Cover**
- The majority of the land cover is agricultural, with some areas of forest and urban development.

**Subbasin Boundaries**
- The subbasin is bordered by Sequoia River to the north, and other subbasins to the south, east, and west.

**Kings County**
- The subbasin is located in Kings County, California, with the city of Sequoia to the north.

**All Recommendations Applicable to Durall City Limits and Use Zone:**
Content has no bearing on land use decisions in unincorporated Kings County.
Recap – Outreach Efforts

Open House

7 PM tonight
Goals, Policies, and Implementation

- Goals and policies – *Chapter 3*
- Implementation – actions to achieve watershed goals
  - Development Standards – *Chapter 5*
  - Stormwater – *Chapter 6*
  - Sensitive Areas – *Chapter 7*

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DS-2 – Increase residential densities in subbasins prioritized for development

- *What is required now?*
  A minimum of 4 units per acre to no upper limit in mixed use zones

- *How should City code be changed?*
  Upzone some areas or allow infill development

- *Which watershed processes would benefit?*
  Relieves development pressure in other areas that have intact watershed processes
Where would this apply?
Subbasin management group 3

City of Portland. The Infill Design Toolkit: Medium Density Residential (City of Portland, 2008)
**Paired rowhouses.** Divide rowhouse projects into paired units, with massing reflective of nearby detached houses. Contextual fit can be optimized by pairing units under the same roof form, instead of using separate gables for each unit.

Four-unit rowhouse project divided into distinct building volumes, with two units under each gable, that reflect massing of nearby houses (pre-existing house visible to right)

"House" at center is actually two side-by-side rowhouse units, each only 10' wide. Their combination into a single house-like form avoids any appearance of being overly narrow and continues the neighborhood rhythm.

Examples of paired rowhouses (also called semi-detached houses) continue patterns established by houses on 20'-wide lots
Corner Attached Houses. Corner sites provide opportunities for attached houses to reflect neighborhood patterns, by enabling units to be oriented to different street frontages, providing the appearance of distinct houses.

City of Portland. The Infill Design Toolkit: Medium Density Residential (City of Portland, 2008)
DS-7 – Strengthen and integrate tree, open space, and sensitive areas protections

• *What is required now?*
Retain 35% significant trees or replace at 3:1 ratio, replace remaining trees at 1:1 ratio

• *How should City code be changed?*
Remove allowance to replace in groups 1 and 2, replace trees in contiguous tracts, retain trees according to certain criteria

• *Which watershed processes would benefit?*
Water flow, water quality and habitat
Where would this apply?
City-wide and groups 1 and 2
DS-9 Cluster residential development

- What is required now?
  Take topography and vegetation into account in design; avoid mass grading and clearing

- How should City code be changed?
  Add design guidelines encouraging open space subdivision designs

- Which watershed processes would benefit?
  Water flow, water quality, and habitat
DS-9 – continued

- *Where would this apply?*
- Groups 2A, 2B, 2C

(Arendt, 2010)
Puget Sound Action Team (PSAT, 2005)
DS-11 Establish limits on mass grading

• *What is required now?*
Terraced four foot tall walls

• *How should City code be changed?*
Limit the number of terraced walls or total length of terraced walls

• *Which watershed processes would benefit?*
Water flow and water quality processes
DS-11 – continued

- Where would this apply?
  Groups 1 and 2
SW-1 – Define and require low impact development (LID) best management practices (BMPs)

• **What is required now?**

Encouraged by both City and adopted King County Surface Water Design Manual

• **How should City code be changed?**

Identify the most useful LID BMPs appropriate for Duvall, and require their use.

• **Which watershed processes would benefit?**

Primary benefit to delivery and water quality processes; also surface storage and recharge
Where would this apply?
City-wide, with specific LID BMPs required for appropriate subbasins based on infiltration capacity and other considerations.

SW-3 – Target stormwater retrofit opportunities

• *What is required now?*
No requirements for redevelopment activities; Comp Plan includes Stormwater Capital Facilities Plan (and City PW has completed past retrofits)

• *How should City code be changed?*
Require retrofit actions for redevelopment (disconnect roof downspouts)

Update retrofit plan for City-owned SW facilities
SW-3 – continued

• Which watershed processes would benefit?
  Primary benefit to storage, discharge and recharge as well as water quality processes

• Where would this apply?
  City-wide, with actions most applicable to subbasins in management groups 2B, 2C and 3 (areas of older development, predating stormwater detention and treatment requirements)
SW-4 – Flow control exemption

• *What is required now?*
  Flow control generally required (except through existing narrow allowance)

• *How should City code be changed?*
  Provide flow control exemption to areas of the city that drain directly to the Snoqualmie River floodplain through pipes / ditches; pair with requirements to implement appropriate BMPs (potentially within other priority subbasins)
SW-4 – continued

• Which watershed processes would benefit?
  Primary benefit to water quality processes

• Where would this apply?
  – Old Town (PAU D-2)
  – Portions of Lower Coe-Clemmons (PAU D-6)
  – Portions of Thayer (PAU D-4)
SA-1 – Identify and protect habitat corridors

• *What is required now?*
  No protections, other than along stream corridors

• *How should City code be changed?*
  Map and establish protections for habitat corridors (to protect intact forested connections inside the city and to surrounding areas)

• *Which watershed processes would benefit?*
  Fish and wildlife habitat processes
SA-1 – continued

Where would this apply?

City-wide (along mapped habitat corridors)
SA-2 – Protections for depressional wetlands

• *What is required now?*
  Regulated consistent with other wetlands through the Sensitive Areas Ordinance

• *How should City code be changed?*
  – Reduce buffer reduction / impact allowances
  – Require LID strategies to maintain hydrology

• *Which watershed processes would benefit?*
  Primarily surface storage, as well as recharge, discharge, water quality and habitat processes
SA-2 – continued

- *Where would this apply?*
  Groups 1 and 2

Depressional wetland in Upper Coe-Clemmons Subbasin
SA-7 – Tree protections for geologic hazards

• *What is required now?*
  Buffer required for landslide and severe erosion hazard areas; can be reduced to 10 feet

• *How should City code be changed?*
  Modify code to encourage protection of mature trees extending away from geologic hazards
  Eliminate allowance for buffer reduction
SA-7 – continued

- *Which watershed processes would benefit?*
  Primarily erosion (sediment export processes), as well as recharge and discharge

- *Where would this apply?*
  City-wide; most applicable to Group 2 subbasins with geologic hazards
Land use recommendations for North UGA

- Apply standard buffers
- Require LID
- Limit runoff to Lake Rasmussen
- Limit tree loss in northwest portion
- Require a master plan
- Avoid crossing streams and habitat corridors
Next Steps

- Final draft of Watershed Plan
  *Available for review before end of March*
- April joint session with Planning Commission and City Council
- Updates based on review and public comment
- Draft regulations (March – June)
- Finalize Watershed Plan by June 2015