



Green River System Wide Improvement Framework

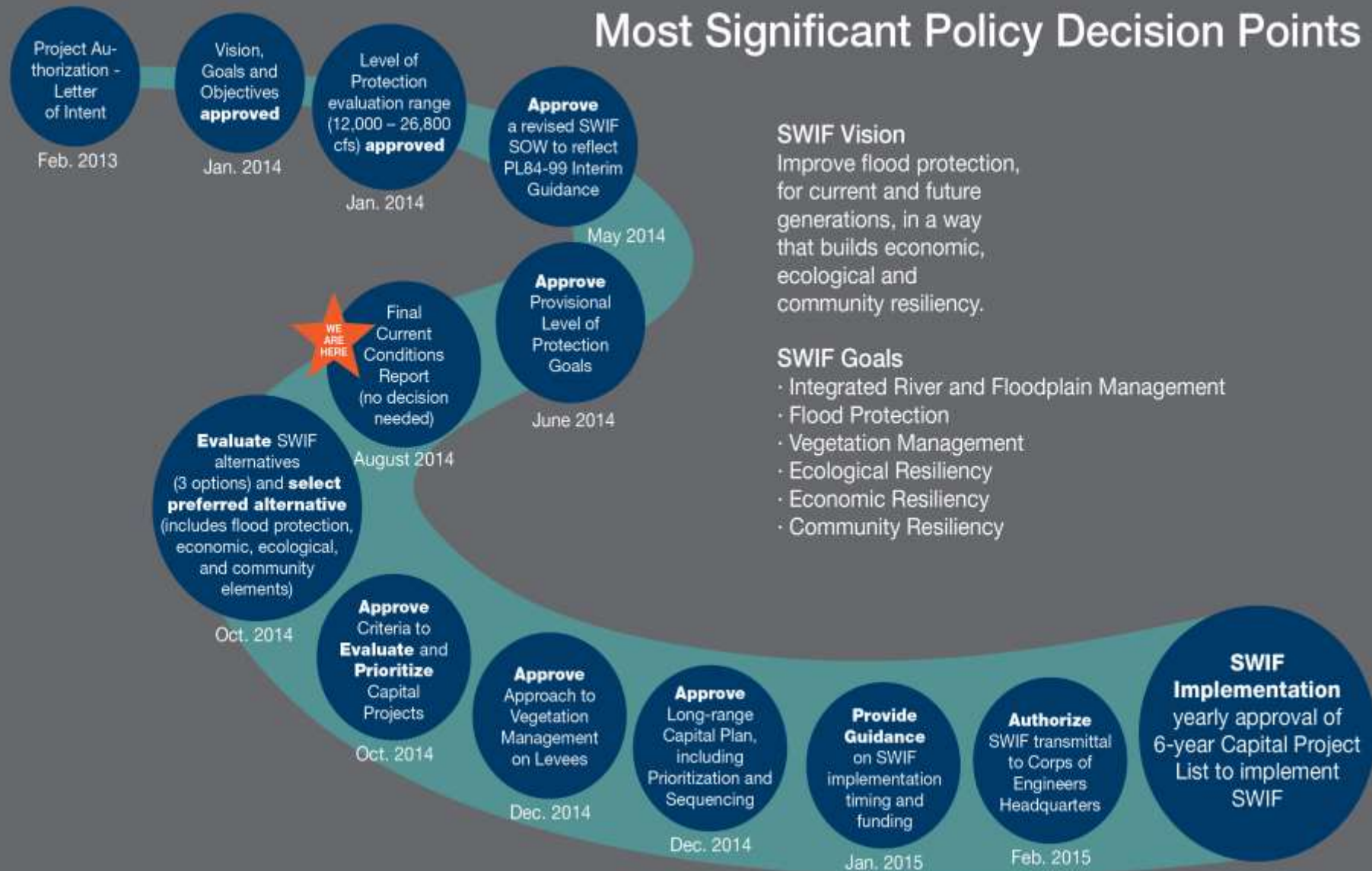
**WRIA 9 Watershed Ecosystem Forum
August 14, 2014**

Presentation Overview

- Provisional Level of Protection (LOP) from flooding goals
- SWIF Alternatives Phase
- Key decisions and timing

Green River System-Wide Improvement Framework (SWIF)

Most Significant Policy Decision Points



SWIF Vision

Improve flood protection, for current and future generations, in a way that builds economic, ecological and community resiliency.

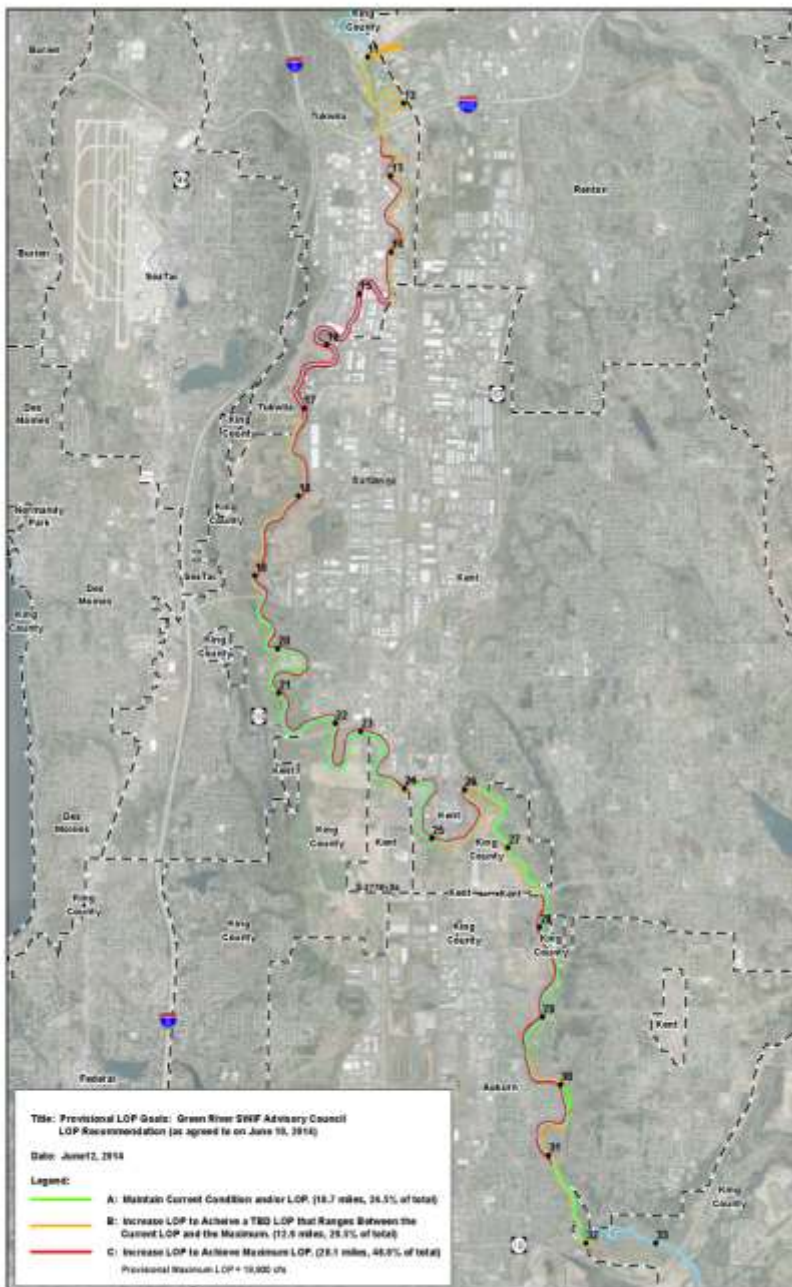
SWIF Goals

- Integrated River and Floodplain Management
- Flood Protection
- Vegetation Management
- Ecological Resiliency
- Economic Resiliency
- Community Resiliency

Provisional Level of Protection From Flooding Goals (LOP)

FCD approved provisional LOP goals in June 2014

- Achieve Maximum LOP: 500 year protection/18,800 cubic feet per second
- Intermediate LOP goal (orange): study to evaluate potential increase in LOP for these 9 areas.
- Maintain current shoreline condition/LOP (green). Majority of Lower Green currently has a 100 year LOP, with the exception of Lower Green APD.



Green River SWIF



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This map is for discussion purposes only

Creating SWIF Alternatives

Alternative 1

- Meets LOP goals
- Follows current levees and shorelines

Alternative 2

- Meets LOP goals
- Some levee setbacks
- Additional habitat
- Additional shade

Alternative 3

- Meets LOP goals
- Significant realignment of levees
- Maximizes habitat, as informed by WRIA 9 habitat opportunity areas
- Maximizes shade

SWIF Alternatives Evaluation

- **Flood protection structures**
 - Length (lineal feet), by type, and level of protection
 - Flow containment, embankment and toe protection considerations
 - Cost (coarse-level estimates)
 - Areas protected, by Alternative
- **Land acquisition** needs (willing seller and condemnation considerations)
- **# Buildings** proposed to be removed or altered
- **Land use/zoning** (including loss of building square footage)
- **Roads and bridges**
- **Utilities and Stormwater facilities**, ponds and outfalls
- **Habitat**, net change to specific habitat features
- **Shade**, net change with a focus on shade to be provided to the mainstem
- **Agricultural Resource Lands**
- **Parks/Recreational Resources**

Three SWIF Alternatives

All SWIF alternatives will meet the same provisionally approved LOP goals

Alternative 1. Constrained Channel Alternative (flood protection focus)

Alternative 2. Less Constrained Channel Alternative (flood protection with coordinated social goals, i.e. habitat, recreation, agriculture).

Alternative 3. The Least Constrained Channel Alternative (maximized habitat approach to achieving flood protection goals)



Map 1: Green River SWIF Alternatives
DRAFT 8/13/2014

- Alt 1: Constrained channel alternative that achieves flood protection goals
- - - - - Alt 2: To be defined. Less constrained channel alternative that achieves flood protection goals, while advancing coordinated social goals of habitat, recreation and agriculture.
- Alt 3: Least constrained channel alternative that achieves flood protection goals, in a manner that maximizes habitat goals and advances recreation goals.
- - - - - Revetments and Levees
- Overlap of existing levees/revetments and Alt 1 alignment



SWIF Alternatives

(8-13-14 ver.)

Map 1 of 4

Downstream limit: Black River Pump Station (Tukwila)
Upstream limit: South 200th St. (Kent)



SWIF Alternatives

(8-13-14 ver.)

Map 2 of 4

Downstream limit: South 200th St. (Kent)

Upstream limit: SR 167th river crossing (Kent)

SWIF Alternatives

(8-13-14 ver.)

Map 3 of 4

Downstream limit: SR 167th river crossing (Kent)

Upstream limit: 22nd Street NE (Auburn)



SWIF Alternatives

(8-13-14 ver.)

Map 4 of 4

Downstream limit: 22nd Street NE (Auburn)
Upstream limit: SR 18



SWIF: Key Dates and Decisions

- **August 20, 2014.** SWIF Technical Advisory Committee (TAC) meeting.
- **September 17, 2014.** SWIF TAC meeting. Advisors will generate recommendations re: SWIF alternatives to be forwarded to the SWIF Advisory Council (AC)
- **October 2, 2014.** SWIF Advisory Council meeting. Advisors will generate recommendations to be forwarded to the Flood District
- **October 2014.** Flood District selects a SWIF Alternative, from which 10-12 priority capital projects will be identified
- **December 2014.** Capital projects designed + estimated, planning level detail
- **December 2014.** Vegetation and habitat recommendations
- **January 2015.** SWIF funding and implementation plan
- **February 2015.** Submit SWIF products to Corps
- **March 2015 and beyond.** SWIF implementation