Chehalis Basin Strategy Community Flood Assistance & Resilience (CFAR) Program

Chehalis Basin Board

June 6, 2019

Why CFAR?

Work Group OFM report (Ruckelshaus Center), December 2012

"Reduce the cost of repetitive damage to residences in the floodplain through a strategic program of buyouts and flood proofing, and encourage a comprehensive effort to prevent new development in the Basin from increasing flood damages."

"Progress on floodplain management policies and programs has been made, though additional improvements are both needed and possible. Further enhancements to state and local land use policies will help ensure new development and other land management activities do not increase the risk of additional flood-related damages and, to the extent possible, reduce damages and costs to existing development affected by flooding."

Why CFAR?

Work Group recommendations report (Ruckelshaus Center), November 2014

"The Governor's Work Group recommends an integrated package of flood-damage reduction and aquatic species restoration including:

3. Continued investment in the highest-priority, smaller-scale flood-damage reduction projects including raising homes, and floodproofing businesses and public structures, with an emphasis on projects with multiple benefits.

4. Local governments' land use management actions to protect remaining floodplain function, alongside floodproofing to provide additional protection for residents and structures that are already located in harm's way."

Why CFAR?

Flood Authority

Bucoda Foundation Flood Opening Lessons Learned, July 2016

10 properties opted in

Two contractors

Average cost per home ~$8,550

Elevation Certificates saved homeowners money on flood insurance premiums

Why CFAR?

Programmatic Environmental Impact Statement (Ecology),

June 2017

"Within Lewis, Thurston, and Grays Harbor counties, approximately 75% of the residential homes within the Chehalis River floodplain could feasibly be elevated or floodproofed through other means. For other buildings (commercial, industrial, government, schools), it is assumed that approximately 25% of the buildings in the Chehalis River floodplain could feasibly be raised, retrofitted, or floodproofed by constructing flood barriers or walls."

Why CFAR?

Programmatic Environmental Impact Statement (Ecology),

June 2017

Regulatory Flood Data provisions would require additional flood data be utilized in floodplain regulations beyond that provided on the community's Flood Insurance Rate Map (FIRM).

Floodplain Protection standards would minimize development in flood-prone locations and protect natural floodplain functions.

Construction Standards would set higher or more effective protection levels for buildings constructed or substantially improved in the floodplain.

Why CFAR?

Draft Economics Study Update (EES Consulting),

June 2017

"The greatest flood damage reduction benefit from most action alternatives comes from eliminating damage to structures and their contents.

PEIS assumed that between 500 and 800 structures would be 'floodproofed' over 100 years, at a cost of $40-$70M.

The avoided damages due to floodproofing buildings or buying out properties over 100 years is significant."

Why CFAR?

Work Group Budget Recommendation for 2017-2019 (December 2016)

"The Work Group recommends continued work with local governments to ensure that, through a series of land use management actions, new floodplain development does not impact floodplain function or cause additional harm for residents and structures that are already located in the floodplain."

"Funding will be provided to initiate a basin-wide floodproofing program with an early focus likely in Centralia and Thurston County, for elevation, acquisition, and other structure retrofit projects. In anticipation of potential adverse impacts of climate change, the Work Group acknowledges that this work to protect local communities and develop standards to safeguard current investments is necessary."

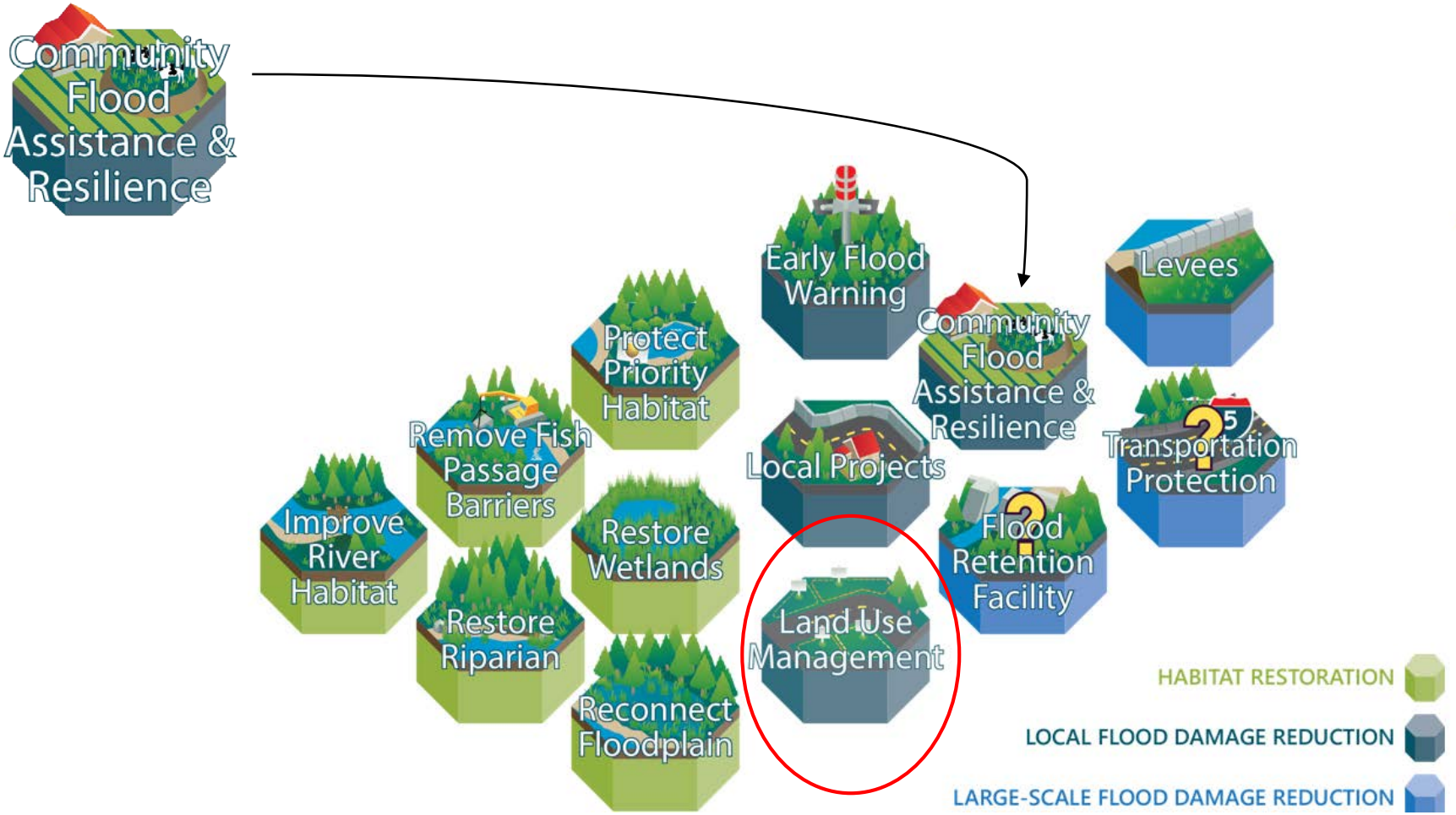
Why CFAR?

Residential structures at risk of erosion
NSD Newaukum field reconnaissance Sept 2017

Chehalis Basin Board - Fall 2018

"In addition to damage caused by rising flood waters, damage also occurs in a number of places in the Chehalis Basin as a result of river channels migrating, eroding land and damaging structures and beneficial uses of the land. The CFAR program will need to address damage from both of these issues, rising flood waters and channel migration."

Relationship to Overall Strategy



Relationship to Overall Strategy

Potential Goals for the Program

1. Provide technical and financial assistance to local communities and landowners to protect lives and property from river flooding and channel migration.
2. Reduce direct economic damages to property, including buildings and their contents, and associated indirect adverse impacts on people, businesses and communities in the basin.
3. Encourage compatible human uses, economic activities, and improved habitat conditions in flood-prone and channel migration areas.
4. Develop criteria to prioritize state investments throughout the basin in a way that considers local government readiness and landowner willingness; potential benefits to areas not otherwise protected by large-scale flood damage reduction elements of the strategy; and consistency with ecosystem restoration goals included within the Aquatic Species Restoration Plan.
5. Undertake activities in a coordinated, cost-effective and environmentally-sensitive manner.

Relationship to Local Projects

"Design and construct local projects that will provide immediate flood damage reduction including the protection of critical infrastructure, wellheads, wastewater treatment plants, roads, ***homes, and businesses****. Concurrent with these projects, develop and implement a long-term strategy for localized flood damage reduction actions."*

Case study objectives

CONSIDER

- What do you like about each case study?
- What do you *not* like about each case study?
- What is concerning to you within each case study?
- What do you see as advantages within each case study?

Case Study A

- Community A has dedicated floodplain management staff that engage annually with landowners in the floodplain.
- Community A's program is voluntary, and requirements for participation include that the structure be residential and have been damaged in a disaster.

Case Study A

- Community A's program requires that the structure to be elevated or acquired is within the floodway portion of the floodplain, and gives priority to structures that pre-date the FEMA FIRM maps.
- In Community A, property owners pay to elevate a structure up front, and obtain reimbursement for 90% of the eligible costs.

FEMA Floodway:
That portion of the floodplain which is effective in carrying flow, within which this carrying capacity must be preserved. Also where the flood hazard is generally highest (water depths and velocities are greatest).

Case Study B

- Community B has minimal staff and while they have long-standing relationships with landowners, there is no annual outreach or consistent communication with landowners.

- Community B's program is voluntary, and structures can be residential or non-residential.

Case Study B

- Community B's program does not require a structure be within the floodway to be included, it can be in any portion of the floodplain. However, priority is given to structures that meet FEMA's definition of repetitive loss or severe repetitive loss.
- In Community B, the State pays contractors along the way, at specific milestones or timeframes. The State pays 75% of eligible costs.

Repetitive Loss Property:

When there are 2 or more losses reported (claims) which were paid more than $1,000 for each loss, over a 10-year rolling period since 1978.

Severe Repetitive Loss Property:

When there are at least 4 losses each exceeding $5000 or when there are 2 or more losses where the building payments exceed the property value

Case study objectives

CONSIDER

- What do you like about each case study?
- What do you *not* like about each case study?
- What is concerning to you within each case study?
- What do you see as advantages within each case study?

Next Steps

- More policy foundation/case studies
- Continued coordination with local governments
- Recommendations for scope of additional CMZ or erosion hazard mapping and assessments
- Develop draft program criteria using other programs and Board feedback (eligible actions, geographic focus, etc.)
- Draft recommended public outreach milestones and timelines