



LOCAL ACTIONS PROGRAM

IMPLEMENTATION ADVISORY GROUP MEETING #6

February 11, 2021

AGENDA

- Welcome
- Environmental Justice
- Floodplain Acquisition Program
- Improvements to I-5 Corridor
- Floodplain Management / Land Use
- Channel Migration and Erosion Hazards
- Agricultural Stay-in-Place Assistance
- Open discussion on the work completed and future work

ENVIRONMENTAL JUSTICE CONSIDERATIONS

ENVIRONMENTAL JUSTICE

Board's Desired Outcome re: Environmental Justice

7. ENVIRONMENTAL JUSTICE ADVANCED

Communities with environmental justice concerns would suffer less hardship and damage from flooding, would not be economically disadvantaged by displacement or otherwise disproportionately adversely affected by actions to reduce flood damage, and would be improved by flood solutions.

PRESENTATION FROM ECONORTHWEST ON ENVIRONMENTAL JUSTICE CONSIDERATIONS

Question for IAG: What are your initial questions and comments on the material presented regarding environmental justice considerations?

FLOODPLAIN ACQUISITION PROGRAM

DIFFERENT STRATEGIES FOR ACQUISITION PROGRAMS

- Whether an acquisition program approach proactively seeks acquisitions and relocation to reduce all or most at-risk structures in certain strategic areas and/or...
- Responds to acquisition requests across a dispersed area.

ACQUISITION PROGRAM - IMPLEMENTATION GROUP FEEDBACK

- Program that is responsive to interest across the Basin - one of the tools in the toolbox (CFAR)
- Relocation of major portion of community in specific areas challenged by available locations, interest, and potential economic/social equity issues
- Determination of feasibility requires significant advanced work (master planning and outreach)

ACQUISITION PROGRAM - OCB FEEDBACK TO BOARD

- Floodplain acquisition could be one tool in broader flood damage reduction toolbox
- Board could be open to acquisition opportunities with willing landowners, especially in strategic locations or areas that can offer multiple benefits
- Board could consider structure retrofits (e.g., elevations) where acquisition is less feasible
- Board could consider initial master planning work or feasibility evaluations in strategic areas with potential relocation opportunities (e.g., Davis Hill in Centralia)

FLOODPLAIN ACQUISITION PROGRAM

- What questions or comments does the IAG have?

STRUCTURAL OPTIONS FOR FLOOD DAMAGE REDUCTION

EXPANDED LIST OF PRIORITY AREAS FOR CONSIDERATION OF STRUCTURAL OPTIONS

1. Adna
2. Lower Newaukum
3. Airport Levee/Chehalis
4. Centralia
5. West Centralia
6. Military Road
7. Galvin
8. Independence Road and north floodplain
9. Oakville
10. Elma (south and west, Monte-Elma Road)
11. South Aberdeen Levee Area
12. East Aberdeen
13. Bucoda
14. Grand Mound

PROTECT HIGH VALUE STRUCTURES AND CRITICAL INFRASTRUCTURE

- Additional approaches to protect high value structures and critical infrastructure such as improving or building new levees, floodwalls, or pump stations
 - Areas of higher density development within the 2080 100-year floodplain were identified for potential local infrastructure such as levees; these areas could also be considered for flood-proofing or relocations
- Long-term option is to further analyze the 14 areas identified in the near-term analysis (modeling, concept design, etc.), including as a priority further investigating walls and levees along I-5 corridor

TAG AND IAG FEEDBACK ON POTENTIAL NEXT STEPS FOR LOCAL STRUCTURAL FLOOD REDUCTION ACTIONS

- Identify types of structures in priority areas (residential, commercial, etc.)
- Outreach to jurisdictions and public in priority areas on interest and need for local actions (potential interest in lower flood levels)
- Identify land use, zoning, buildout, economic and social justice considerations for jurisdictions
- Consider identifying initial alignment possibilities
- Modeling, if any areas worth analyzing further to help determine height and costs

ADDITIONAL ANALYSES FOR STRUCTURAL OPTIONS

What are your thoughts on how technical issues, policy implications, and public outreach should be conducted in regard to exploring improvements to the I-5 corridor and/or any of the 14 areas?

FLOODPLAIN MANAGEMENT LAND USE RECOMMENDATIONS

FLOODPLAIN MANAGEMENT LAND USE RECOMMENDATIONS – PROPOSED FOR DISCUSSION

- Two-pronged approach for using floodplain data:
 - Use the **flood of record** or current, **100-year floodplain** (whichever higher) for *regulating* the floodplain extent & depth
 - Use the **500-year floodplain** or the **2080 (100-year) floodplain** for *planning and outreach purposes* (e.g., future zoning)
- Continue to recommend subdivision regulations for rural areas
- Develop policy guidance to **discourage upzones** or urban growth area (UGA) expansion into flood-prone areas
- Standardize and provide guidance on implementation of **zero rise policy and compensatory storage** requirements (e.g., definitions, means of determining compliance, treatment of small projects)
- Establish an **acquisition program** to acquire development rights and/or use other incentives to prevent expansion of high-density zoning, maintain low-density zoning in rural areas, and prevent environmental damage
- Chehalis basin jurisdictions should consider implementing the other past floodplain management recommendations (CRBFA 2010 and French Assoc 2016) as appropriate for their jurisdictions

FLOODPLAIN STANDARD/GUIDANCE

Feedback/Input to Date	Proposed Recommendation
<ul style="list-style-type: none">• Basin-wide (or state-wide) standard would be useful• Any new standard should align with or exceed NFIP• Distinguish between using the floodplain to plan vs. regulating to flood predictions• Standard should be easy to understand and actionable • Flood of record used by many jurisdictions – as requirement or advice• 2080 prediction:<ul style="list-style-type: none">• Could use in planning and to inform/not regulate owners/developers• Similar land area to flood of record• Modeled 500-year event may be easier to show the public than predicted 2080 flood levels (differing views)	<ul style="list-style-type: none">• Two-pronged approach for using floodplain data:<ul style="list-style-type: none">• Use the flood of record or current, 100-year floodplain (whichever higher) for <i>regulating</i> the floodplain extent & depth• Use the 500-year floodplain or the 2080 (100-year) floodplain for <i>planning and outreach purposes</i> (e.g., future zoning) • Has implications for structural solutions

SUBDIVISION REGULATIONS FOR RURAL AREAS

Feedback/Input to Date	Proposed Recommendation
<ul style="list-style-type: none">• Subdivision requirements for rural areas are largely the standard in place<ul style="list-style-type: none">• Could be difficult to enforce• Could be useful to audit how well the requirements have been implemented• Not sufficient incentives for properties to cluster• Pre-existing lots are not addressed – can still develop• Acquiring development rights and/or economic incentives to develop elsewhere could help address gap	<ul style="list-style-type: none">• Continue to recommend that jurisdictions adopt subdivision regulations• Acquire development rights or use other incentives to prevent development on existing lots in rural floodplain areas

LOW-DENSITY ZONING FOR RURAL AREAS

Feedback/Input to Date	Proposed Recommendation
<ul style="list-style-type: none">• Majority of rural floodplain is zoned 1/20 or 1/40, but there could be future pressure to change zoning• Acquisition or development rights in strategic locations could maintain low-density zoning• Policy guidance discouraging upzones or urban growth area (UGA) expansion into flood areas would be helpful	<ul style="list-style-type: none">• Develop policy guidance to discourage upzones or UGA expansion into flood-prone areas• Acquire property/development rights to protect low-density zoned areas from flood damage and for aquatic species

ZERO RISE AND COMPENSATORY STORAGE

Feedback/Input to Date	Proposed Recommendation
<ul style="list-style-type: none">• Most Chehalis Basin jurisdictions require but with flexibility (how it is calculated or where the rise is)• Need simple approach for determining if single residential or small commercial development applies• Issues with measuring impact:<ul style="list-style-type: none">• Added burden on landowners to require for a parcel• At project level may show no rise in overall floodplain• Basin-wide & cumulative analysis would be helpful• Relative value of compensatory storage varies:<ul style="list-style-type: none">• Compensatory storage is crucial along with the development of criteria to control rain events• Compensatory storage does not add up to much when compared to the huge volume of water in the floodplain• Should consider the size of a project (e.g., single family home vs. large industrial development with lots of fill)	<ul style="list-style-type: none">• Standardize and provide guidance on the implementation of zero rise policy and compensatory storage requirements (e.g., definitions, means of determining compliance, treatment of small projects)

ACQUISITIONS AND INCENTIVES

Feedback/Input to Date	Proposed Recommendation
<p>Incentives</p> <ul style="list-style-type: none"> • Density bonus allowance for cluster development (may be limited under GMA) • Incentives for low impact development (LID) and maintaining predevelopment hydrology <p>Easements</p> <ul style="list-style-type: none"> • Conservation easements (likely with financial incentives) • Flood easements where the land could be used for alternative purposes <p>Acquisitions</p> <ul style="list-style-type: none"> • Multi-year funding streams for local governments to acquire development rights • Use acquired properties for compensatory storage mitigation as an added benefit <p>Funding Mechanisms</p> <ul style="list-style-type: none"> • A mitigation fee (paid by floodplain developers) • Make CBS funding for infrastructure projects dependent on local governments' adopting higher standards • Block grants to cities and counties that implement the increased regulatory requirements or support acquisition programs that reduce annual property tax income <p>Tech Assistance/Guidance</p> <ul style="list-style-type: none"> • Assistance with raising structures as an alternative to acquisition where feasible • Development of floodplain adaptation best management practices and education/outreach to the community 	<ul style="list-style-type: none"> • Establish an acquisition program designed to acquire development rights and/or use other incentives to prevent expansion of high-density zoning, maintain low-density zoning in rural areas, and prevent environmental damage <p>This would require:</p> <ul style="list-style-type: none"> • Dedicated funding for acquisitions / development rights • Criteria for property identification & prioritization

UPDATE – WATER/WASTEWATER INFRASTRUCTURE POTENTIAL RECOMMENDATION

- Further research revealed no additional requirements for water / wastewater infrastructure in rural floodplains beyond state requirements currently
- No recommendation proposed

PREVIOUS FLOODPLAIN MANAGEMENT RECOMMENDATIONS (1 OF 4)

Priority Recommendations & Modifications

- ~~Flood of record adopted~~ → *replace with flood of record or current 100-year flood, whichever higher, as regulatory standard*
- Subdivision/large development regulations → *focus on rural areas, use acquisition program to acquire development rights for priority undeveloped lots*
- Low density zoning → *add policy guidance to discourage upzoning & UGA expansion; acquisition program to maintain 1:20/1:40 density*
- Compensatory storage for fill → *standardize/provide guidance for implementation*
- Zero rise policy → *standardize/provide guidance for implementation*

PREVIOUS FLOODPLAIN MANAGEMENT RECOMMENDATIONS (2 OF 4)

Data, Planning & General

- Best available data required when no FIRM base flood elevation (BFE)
- Determination of BFE required when no available flood data
- Community Rating System (CRS) participation

Zoning / Permitting

- Critical facilities
- Floodplain development restrictions (e.g., require special use permit)

PREVIOUS FLOODPLAIN MANAGEMENT RECOMMENDATIONS (3 OF 4)

Building/Development Requirements

- Commercial/industrial freeboard requirement
- Foundation requirement
- Non-conversion agreements (limits on enclosures below BFE)
- Lower threshold for substantial improvements
- Substantial improvement tracking over time
- Street elevation

PREVIOUS FLOODPLAIN MANAGEMENT RECOMMENDATIONS (4 OF 4)

Water Quality / Critical Areas

- Stormwater manual adoption
- Floodplain protection in Critical Areas Ordinance
- Wetland and stream buffers
- Impervious surface limits
- Shoreline Master Program updates
- Associated wetlands in shoreline management zone
- Hazardous materials

LAND USE: QUESTIONS FOR THE IAG

- What additional info or issues should the Chehalis Board consider in deciding whether to recommend using the flood of record or the current, 100-year flood for **regulations**?
- What additional info or issues should the Chehalis Board consider in deciding whether to recommend using the 500-year flood or the 100-year flood in 2080 for **planning and educational purposes**?
- What additional info or issues should the Chehalis Board consider in recommending adoption of subdivision requirements and policy guidance to discourage upzones/urban growth expansion?
- What ideas do you have on standardizing the implementation of zero rise and compensatory storage requirements? Are there key principles to keep in mind to propose to the Board?
- What project/funding criteria and/or other program characteristics should the Chehalis Board consider for an acquisition/incentive program for undeveloped properties?
- What additional info or issues should the Chehalis Board consider in deciding whether to recommend that local/tribal jurisdictions continue to implement other past land use recommendations (CRBFA 2010 and French Assoc 2016) as appropriate for their communities?

CHANNEL MIGRATION AND EROSION HAZARDS STRATEGY

ADDRESS BANK EROSION DAMAGE

- Ways to address damage from accelerated bank erosion
 - Developing initial maps for up to 100 miles of high priority areas
 - Developing an erosion management approach to evaluate reach-scale opportunities for reducing erosion damages while protecting and enhancing habitats and ecological processes
- Long-term option
 - Identifying one or more pilot subbasins to outline how to develop a pilot technical assistance program for landowners with relative cost and staffing needed for a program (in coordination with staff from the Office of Chehalis Basin and Washington Department of Fish and Wildlife)
 - Potential to complete CMZ delineations in high priority areas

UPDATED EROSION MANAGEMENT STRATEGY

- Channel migration and bank erosion are natural processes that form and maintain habitats. However, erosion rates can become accelerated above natural rates due to land uses, facilities, hard bank protection or other factors.
- Recommend that erosion management projects should be developed and implemented in the context of reach-scale conditions and geomorphic processes...and promote the use of bioengineering techniques.
- Recommend that erosion management projects included within the Chehalis Basin Strategy occur only where they can be combined with habitat enhancement or where critical infrastructure is present and threatened and an expanded reach-scale project can be pursued that benefits both public and private landowners and enhances habitat.

UPDATED CRITERIA TO DETERMINE POTENTIAL FOR AN EROSION MANAGEMENT PROJECT

MUST MEET FIRST TWO CRITERIA:

1. A local project sponsor is willing to develop a reach-scale project with multiple landowners.
2. Erosion risk is immediate or near-term (within next 5 years) that that would cause significant damage to valuable structures, infrastructure, or productive agricultural land (“significant” loss or damage).

MUST MEET AT LEAST THREE OF THE BELOW CRITERIA:

1. Landowner is willing to consider relocation that would provide long-term reduced erosion (or flooding) risk (either with or without an associated bioengineered or habitat solution).
2. Landowner is interested in a bioengineered solution and willing to maintain a bioengineered solution as part of a funding agreement.
3. Opportunities exist for a reach-scale approach to reduce velocities through reconnecting former channels/swales, placement of large wood, riparian revegetation, bank sloping/terracing, or other elements that would benefit the reach and maintain or restore natural processes and/or habitats.
4. Project is likely to provide significant benefits for the cost to multiple landowners.

EROSION STRATEGY

- What additional questions or comments does the IAG have, or considerations that should be included in an erosion strategy?

AGRICULTURAL STAY-IN-PLACE ASSISTANCE

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Board's Desired Outcomes re: Farmland

4. FARMLAND AND RURAL STRUCTURES PROTECTED

4.A. The number of locations where migrating river channels and bank erosion pose a high risk of near-term damage to valuable structures or loss of economically productive land uses would be reduced by an average of X per year over up to 30 years, while protecting ecological processes.

4.B. Protective measures prevent flood damage from increasing above the damage to commercial agricultural operations that occurred in the 1990 flood, while protecting ecological processes.

AGRICULTURAL STAY-IN-PLACE ASSISTANCE

- What other ideas do you have for effectively engaging with agricultural landowners on possible stay-in-place assistance tools the Chehalis Basin Strategy could provide?

NEXT STEPS

OFFICE OF CHEHALIS BASIN NEXT STEPS

- OCB will summarize results from advisory group discussions and staff work, identify differing technical and policy perspectives to the Board and a table with the current progress for each work element.
- OCB is not recommending specific projects to the Board but the options (studies or additional analyses) for how specific projects could be pursued if the Board chooses.
- Future involvement of the IAG/TAG will depend on Board decisions and interest of IAG/TAG members.
- IAG/TAG members are welcome to provide individual input to the Board through written correspondence or during Board meetings.

QUESTIONS/COMMENTS

DO YOU HAVE
ADDITIONAL COMMENTS
ON THE WORK WE HAVE
COMPLETED THROUGH
THE IAG MEETINGS OR
COMMENTS ON FUTURE
WORK?

