



Community Flood Assistance & Resilience Program Framework: Reducing Flood Hazards to People and Property

By

Office of Chehalis Basin

Washington State Department of Ecology

Olympia, Washington

April 2025, Publication 25-13-008



Publication Information

This document is available on the Department of Ecology's website at:
<https://apps.ecology.wa.gov/publications/summarypages2513008.html>

Cover photo credit

- Kat Dickey (Office of Chehalis Basin), 2024: Home elevation project in construction, Bucoda, WA

Related information

- [Publication 20-13-002: Focus on: Community Flood Assistance and Resilience for renters, land and business owners¹](#)
- [Publication 20-13-003: Be Aware, Be Prepared - Protect Yourself from Flooding in the Chehalis Basin²](#)
- [Publication 21-13-002: Preparing a Household Flood Response Plan³](#)

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¹ <https://apps.ecology.wa.gov/publications/SummaryPages/2013002.html>

² <https://apps.ecology.wa.gov/publications/SummaryPages/2013003.html>

³ <https://apps.ecology.wa.gov/publications/SummaryPages/2113002.html>

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Department of Ecology's Regional Offices

Map of Counties Served



Southwest Region 360-407-6300	Northwest Region 206-594-0000	Central Region 509-575-2490	Eastern Region 509-329-3400
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Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
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Washington State Department of Ecology
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DEPARTMENT OF
ECOLOGY
State of Washington

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Acknowledgments

The Office of Chehalis Basin (OCB) developed this document with input from a stakeholder workgroup with experience and expertise related to floodplain management, flood assistance and resilience, community engagement, and environmental justice.

Through a facilitated process, workgroup members shared their insights and feedback to contribute to this framework for the Community Flood Assistance & Resilience Program. OCB is very grateful for the valuable contributions from workgroup members, whose input will enable OCB to improve its flood assistance services for people in the Chehalis Basin.

A list of workgroup members and a description of the workgroup process is in Appendix B.

Introduction

The Washington State Department of Ecology’s (Ecology) Office of Chehalis Basin (OCB) developed the Community Flood Assistance & Resilience (CFAR) program to support local and tribal governments and residents in the Chehalis Basin (see map in Figure 1) by:

- Improving their understanding of flood regulations, flood damage, and flood insurance,
- Improving local flood policies and regulations, and
- Reducing the exposure of structures to flood damage.

OCB administers the program under a biennial funding cycle, and the Chehalis Basin Board makes decisions about CFAR funding allocations.



Figure 1: Map of the Chehalis Basin, Washington

Through CFAR, OCB provides the following key services:

- Conducts direct technical assistance and shares information for residents and businesses on how to reduce their exposure to flood damage.

- Administers flood damage reduction projects for basin property owners to elevate, move, or remove structures at risk of flooding.
- Works with local governments to improve floodplain management programs, potentially adding them to the Federal Emergency Management Agency's (FEMA) Community Rating System (CRS) program or improving their CRS rating to reduce flood insurance rates.

Purpose

Through fall 2024, CFAR has operated in a pilot stage to elevate, floodproof, or voluntarily acquire homes in the Chehalis Basin at risk of flooding. **The purpose of this document is to outline a long-term, sustainable framework for CFAR property flood assistance services that could eventually be scaled up to meet future needs.** A stakeholder workgroup advised OCB on the development of this program framework (see Appendix B for more about the workgroup).

The remainder of this program framework consists of the following sections:

- Program goals, services, and products
- Project prioritization
- Post-project activities
- Contracting approach
- Outreach and coordination with other Chehalis Basin Strategy programs
- Metrics, program growth, and continual improvement
- Appendix A: Flood assistance request form
- Appendix B: Workgroup process summary

Context for the CFAR program

CFAR is a state program administered by OCB that supports all communities in the Chehalis River Basin affected by flooding. It complements and coordinates with local and tribal floodplain management programs that operate in the Chehalis Basin to reduce potential flood damage to structures.

CFAR is not a Federal Emergency Management Agency (FEMA) program, so it does not operate with the same procedures and requirements as a FEMA grant program. This allows OCB to be more flexible with CFAR implementation and to respond to Chehalis Basin community needs

more quickly. OCB may consider applying for FEMA grants to support CFAR implementation in the future, which could affect the process and timeline for funding projects.

Statutory and administrative requirements

Statutory requirements, administrative rules, and agency policies provide the context for establishing and implementing OCB's flood assistance services to property owners and residents through the CFAR program. Key statutes, rules, and policies include:

- [Governor's Executive Order 21-02](#), Archaeological and Cultural Resources. ⁵This Executive Order reflects the governor's commitment to assure cultural resources, archaeological sites, historic structures, and tribal sacred places are fully considered in any state funded project and that impacts to these cultural resources must be considered.
- [RCW 43.21A.730.6](#) This state legislation established the Office of Chehalis Basin with the primary purpose of "... to aggressively pursue implementation of an integrated strategy and administer funding for long-term flood damage reduction and aquatic species restoration in the Chehalis River basin."

⁵ https://governor.wa.gov/sites/default/files/xe_order/eo_21-02.pdf

⁶ <https://app.leg.wa.gov/rcw/default.aspx?cite=43.21A.730>

Program Goals, Services, and Products

This section summarizes the goals, services, and products that OCB provides to Chehalis Basin property owners and residents through the CFAR program.

Goals

The CFAR program seeks to achieve the following three goals:

- Reduce flood hazards to people and property, thereby avoiding economic losses and improving safety and wellbeing.
- Provide flood assistance to communities most vulnerable to flood impacts.
- Promote adoption and implementation of protective floodplain management policies and practices.

The first two goals are the focus of this program framework. This program framework and these goals supports OCB’s commitment to ensure fair and predictable service delivery and the implementation of [Washington State’s Healthy Environment for All \(HEAL\) Act](#).⁷ The project prioritization section of this framework outlines how OCB plans to support vulnerable communities specifically.

Services and products

Through CFAR, OCB offers technical assistance and carries out flood damage reduction projects for property owners and residents to reduce the exposure of structures to flood damage.

- **Technical assistance** involves OCB providing customized, site-specific flood-damage recommendations to homeowners, businesses, and residents. It can result in a neighborhood flood response plan, a property visit report, or general information assistance. Homeowners may request a flood project after receiving technical assistance.
- **Flood damage reduction projects** involve OCB funding and implementing flood-damage reduction solutions for homeowners. OCB prioritizes requests for flood damage reduction projects, such as structure elevations, and then coordinates the funding and construction of elevations. OCB also helps homeowners who wish to sell their property and move out of harm’s way.

Table 1. Summary of CFAR flood assistance services, products, and projects

⁷ <https://ecology.wa.gov/about-us/who-we-are/environmental-justice/heal>

Services	Products
Technical assistance	<ul style="list-style-type: none"> • Property visit report: A report that provides site-specific info on flood hazards and recommendations for how to protect buildings and contents from flooding. It also collects information needed to consider properties for a flood project if the owner is interested. • Neighborhood flood response plan: A document focused on neighborhood-scale flooding issues that explains how people can prepare personal flood response plans for their properties. • Phone/email consultation: Email or phone response to flood assistance inquiries that do not require a site visit.
Flood damage reduction projects	<ul style="list-style-type: none"> • Elevation project: Project administration with the design and construction of structure elevation projects. OCB funds the elevation project and carries out the process to select contractors and implement the project. • Voluntary acquisition project: Purchases property and/or conducts relocation of structures at risk of flood damage. OCB funds the acquisition and coordinates the process to identify a new title holder, transfer ownership, and demolish existing structures when needed.

OCB conducts outreach to educate the community about the Chehalis Basin Strategy and flood assistance services available. CFAR staff then provide high-quality technical assistance services to those who seek out assistance. Since funding is limited, OCB prioritizes projects for funding so that it can provide flood assistance to residents most vulnerable to flood impacts.

The CFAR property assistance process includes three phases: (1) technical assistance, (2) prioritization of projects for funding, and (3) flood damage reduction projects. The following diagram shows a high-level summary of the process.

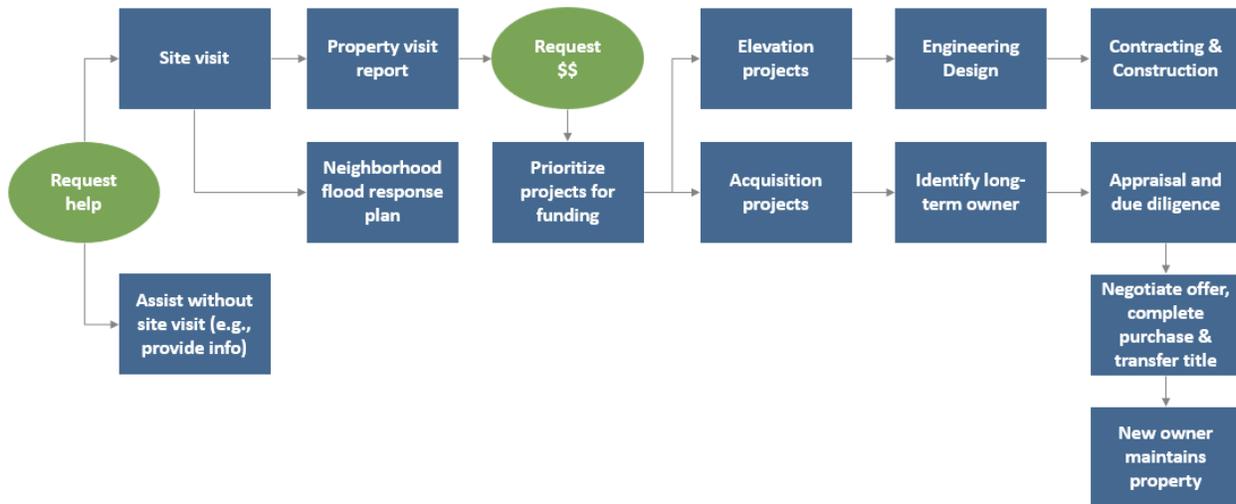


Figure 2: Property flood assistance process

Technical assistance

The property flood assistance process begins when a homeowner, business, or resident requests flood assistance. OCB responds to the initial request to better understand the property owner’s needs and to determine if there is a need for a site visit. Site visits are a requirement for any future flood project request.

If the requester is seeking more general technical information, a site visit may not be necessary. In these cases, OCB provides the requested information via phone or email message and follows up to confirm that the requester’s questions have been addressed. Otherwise, OCB conducts a site visit to explore the specific issues the property owner or resident is facing and then identify recommendations to reduce flood damage.

After site visits, OCB generally prepares a **property visit report** that documents building conditions, flood risk, and flood history at the property and provides recommendations on actions the property owner can take to reduce exposure to flood damage. In developing recommendations, OCB considers what actions will address the flood hazards at the property for the lowest cost. OCB shares the draft property visit report with the property owner and discuss the recommendations with them. After further discussion and revisions, OCB finalizes the report and determines if the property owner is interested in a flood project. If the property owner is interested, OCB adds the project to a project prioritization list. Otherwise, OCB documents completion of technical assistance.

In addition, in cases where there’s a need to help residents prepare for how to respond to flooding, OCB prepares a draft **neighborhood flood response plan** and discusses recommendations with the property owner. OCB then shares a final document with the property owner, and coordinates with the local Emergency Management Department on

broader outreach to nearby residents. Residents either choose to pursue eligibility for flood damage reduction project or OCB documents completion of flood assistance.

CFAR Assistance for Businesses

OCB recognizes it is important to serve businesses along with homeowners and residents through CFAR. OCB provides customized, site-specific flood-mitigation recommendations or neighborhood flood response plans to help small businesses better prepare for floods. OCB is also continuing to evaluate how to best meet business needs for flood assistance.

To check on the usefulness of CFAR technical assistance, OCB follows up with property owners about 6 months after finalizing a property visit report or neighborhood flood response plan. OCB asks whether property owners have acted on the recommendations in the reports and whether any other assistance may be needed. If the homeowner has expressed interest in a flood project, this check-in may include an update on the status of project prioritization.

Prioritizing projects for funding: Property owners may request a flood project after OCB staff have evaluated the flood-damage risks at their properties and provided recommendations in a property visit report. OCB prioritizes projects using the process and criteria described in the Project Prioritization section below.

Flood damage reduction projects

Once OCB staff prioritizes projects, the OCB Director approves projects for funding and seeks Chehalis Basin Board approval on any projects estimated to cost \$500,000 or more. Then OCB staff, contractors, and partners work with property owners to elevate, acquire, relocate, and/or floodproof homes.

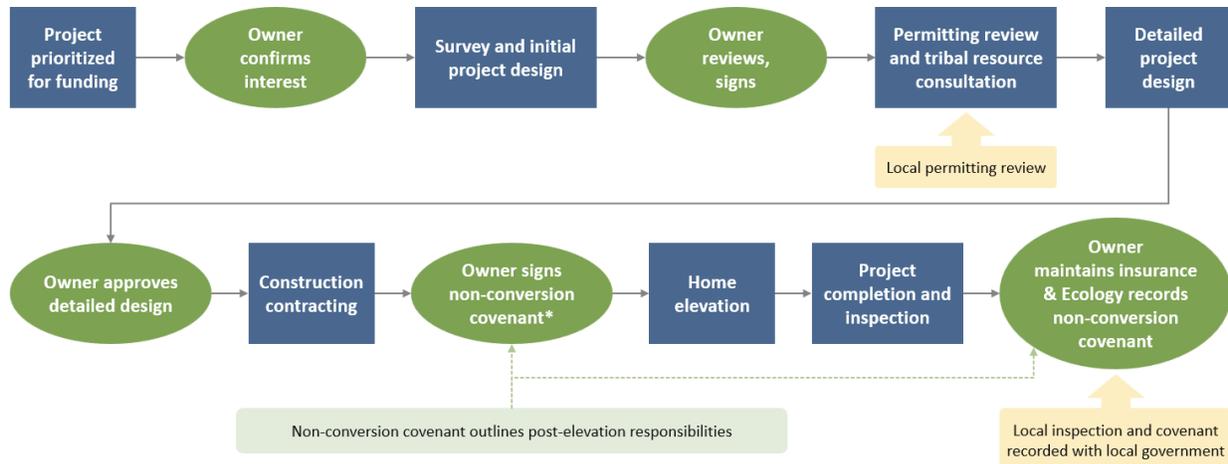
For elevation projects, OCB is the project owner from design to contract close. OCB and consultants coordinate the development of engineering designs for the projects, coordinate permitting and cultural resource reviews, secure contractors for construction, and oversee the construction process.

To ensure success in the elevation process, OCB seeks to achieve the following:

- Projects remain within budget.
- Elevation certificates are correct.
- Construction meets or exceeds quality expectations.
- Projects meet all the requirements of local jurisdictions.

- The elevation provides flood-damage reduction benefits long after construction is finished, because the property owner does not convert the elevated area to other uses (see Post-Project Activities section below).
- The process supports positive reviews from homeowners, such as through clear communication, timely responses to resident inquiries, and clear identification of next steps, near-term actions, and expectations.

Roles and steps in the elevation project process are shown in the following diagram.



*See explanation of non-conversion covenants in Post-Project Activities section of this document.

Figure 3: CFAR process for elevation projects

For acquisition projects, OCB manages the process of acquiring property rights from willing sellers and transferring the properties to new title holders. In this process, OCB conducts an appraisal and due diligence activities for the property. OCB also identifies a long-term title owner for the property (e.g., a local government agency) prior to negotiations since Ecology cannot hold real property title. OCB or the future property owner negotiates offers and completes the purchase and title transfer, and then the new property owner maintains the property in accordance with the conversion covenant. CFAR acquisitions follow the processes and procedures outlined in the [Chehalis Basin Strategy Voluntary Acquisition Handbook](#)⁸.

Local and tribal jurisdiction coordination

OCB staff and consultants manage flood damage reduction projects but coordinate with partners for implementation. OCB consults with local and tribal governments at three parts in the process:

- OCB checks with local and tribal governments about the consistency of the projects with local/tribal codes and plans during project eligibility (see prioritization section).

⁸ <https://apps.ecology.wa.gov/publications/SummaryPages/2513004.html>

- OCB sends project designs (e.g., for elevation projects) to local and tribal governments for permitting review.
- OCB records the non-conversion covenant with the County recorder of deeds or appropriate tribal jurisdiction at the end of the project.

Project Prioritization

OCB receives funding for CFAR every two years based on the budget recommendations of the Chehalis Basin Board and state legislative appropriations. Prior to 2024, OCB funded projects on a first come, first served basis. As of fall 2024, OCB is using the following process to prioritize projects. The process includes three steps, each of which is further described below. OCB staff:

1. Verify eligibility of projects using eligibility criteria
2. Prioritize projects for funding using prioritization criteria
3. Review results with technical experts and make funding recommendations to the OCB Director (and Chehalis Basin Board when appropriate).

In developing this prioritization approach, OCB sought to design a process that would:

- Ensure consistency and transparency
- Help the most in need and highest risk structures
- Be efficient and simple to implement

Step 1: Verifying eligibility

To be eligible for CFAR project assistance, flood damage reduction projects must meet the five eligibility criteria outlined in the following table.

Table 2. Eligibility criteria for flood damage reduction projects

Criteria	Definition
Property visit report complete	OCB has prepared a site-specific report for the property that describes the flood hazard, building conditions, and recommended flood damage reduction measures. Reports need to be completed prior to prioritization.
Actions are eligible to be a CFAR flood damage reduction project	Actions eligible to be a CFAR flood damage reduction project include: <ul style="list-style-type: none">• Primary structure elevations,⁹ unless the structure is a slab-on-grade construction. Elevation projects funded by OCB must also meet one of the following conditions:

⁹ Primary structures are defined as finished living or working spaces.

Criteria	Definition
	<ul style="list-style-type: none"> • The first-floor elevation of the primary structure is at or below the base flood elevation (or the flood of record if higher). • The property has been subject to repetitive loss claims from riverine flood sources. • Voluntary acquisition of structures <p>CFAR may carry out other floodproofing actions on a case-by-case basis, but typically not for minor actions that do not require engineering design support (e.g., utility relocation, floodwalls). See the “Be Aware, Be Prepared: Protect Yourself from Flooding in the Chehalis Basin” guide from the Office of Chehalis Basin for a full set of examples of flood mitigation strategies.¹⁰</p>
Flood source is connected to the Chehalis River and/or its tributaries	OCB confirms that flooding is from the Chehalis River and/or its tributaries. All basin properties experiencing flooding (e.g., from local drainage issues) can still receive technical assistance and low-cost mitigation guidance.
Actions are consistent with local codes and adopted community plans	<p>OCB consults with the appropriate local or tribal jurisdiction (e.g., community development office) about the potential flood damage reduction project and confirms that:</p> <ul style="list-style-type: none"> • The project is consistent with local codes. • The project does not conflict with any plan adopted by the community. • There are no outstanding building or permitting compliance violations on the property.
Owner is interested in a flood damage reduction project	OCB confirms that the property owner is interested in participating in a funded flood damage reduction project (e.g., elevation or voluntary acquisition). The owner will state their interest in writing. The property can be either owner or non-owner occupied.

OCB generally reviews the eligibility criteria in sequence, so that confirming owner interest is at the end of the eligibility confirmation process.

¹⁰ <https://apps.ecology.wa.gov/publications/SummaryPages/2013003.html>

Step 2: Application of prioritization criteria

After confirming eligible projects, OCB prioritizes funding for flood damage reduction projects by five prioritization criteria: flood depth, flood damage prevalence, social vulnerability, safety and health, and mitigation priority area. Definitions of these criteria are in the table below.

Table 3. Prioritization criteria for funding flood damage reduction projects

Criteria	Definition
Depth	The base flood elevation (BFE) or the flood of record, whichever is higher. Depth is measured in feet above the lowest finished floor (LFF). The LFF is the first habitable floor of a building that can include a finished, permitted basement or garage converted into a living area. Properties with greater flood depths will receive higher prioritization.
Flood Damage Prevalence	<p>Flood damage prevalence refers to whether there is evidence of historical flooding at the structure or the frequency that the lowest finished floor is expected to flood in different flooding events (1% annual [100-year], 2% annual [50-year], and 10% annual [10-year] flood) events. Properties with evidence of recent and repetitive flooding above the LFF receive the highest scores.</p> <p>A range of evidence can be used to determine flood damage prevalence. Possible evidence of historical flooding could include:</p> <ul style="list-style-type: none"> • High water marks or photo documentation • Flood history from owners/occupants • Repetitive loss property status¹¹ • Insurance claims <p>Stream profiles are the primary means of identifying the expected reach of 2% and 10% flood events.</p>

¹¹ Repetitive loss is defined as National Flood Insurance Program (NFIP)-insured property with 2+ paid flood losses of \$1K+ each in 10-year period (<https://www.fema.gov/about/glossary/repetitive-loss-structure>). Severe repetitive loss is defined as NFIP-insured property with 4+ paid flood losses of \$5K+ each and totaling over \$20K OR 2+ paid flood losses, with the cumulative amount exceeding fair market value on day before each loss (https://www.fema.gov/pdf/nfip/manual201205/content/20_srl.pdf)

Criteria	Definition
Social Vulnerability	<p>Social vulnerability refers to the susceptibility of social groups to adverse impacts of flooding or other natural hazards.¹² This criterion considers whether the occupants of the property have any of the following social vulnerability factors:</p> <ul style="list-style-type: none"> • Low-income household¹³ • Elderly¹⁴ • Children¹⁵ • Disabled¹⁶ • Racial/ethnic minority¹⁷ <p>OCB selected these factors after considering studies about social vulnerability before, during, and after flood events.¹⁸ The specific definitions for each factor are consistent with those used by other state or federal programs (e.g., the Department of Commerce Weatherization program). Applicants can opt out of sharing any of the above statuses, and all information is self-reported by the applicant.</p> <p>If there are more than one individual that meet one category (e.g. a two-child household), the property still receives one point. If an individual represents multiple categories, they receive one point per category.</p>
Safety & Health	<p>This criterion evaluates factors that indicate there is an increased risk to the safety, health, and wellbeing of occupants on the property due to flood damage. Safety and health factors considered in this criterion include:</p>

¹² <https://www.atsdr.cdc.gov/place-health/php/svi/index.html>

¹³ Low income household is defined as: <200% federal poverty line or <60% the state median income (<https://deptofcommerce.app.box.com/s/rk0a8umeb7mguxq9yavf2201gv5yrbcg>)

¹⁴ Elderly is defined as individuals over 60 years old (<https://deptofcommerce.app.box.com/s/rk0a8umeb7mguxq9yavf2201gv5yrbcg>.)

¹⁵ Child/children are defined as 19 years old or younger (<https://deptofcommerce.app.box.com/s/rk0a8umeb7mguxq9yavf2201gv5yrbcg>).

¹⁶ A person with a disability is defined as someone who (1) has a physical or mental impairment that substantially limits one or more "major life activities," (2) has a record of such an impairment, or (3) is regarded as having such an impairment. (Americans with Disabilities Act, Section 503 of the Rehabilitation Act of 1973 and Section 188 of the Workforce Investment Act). Source: <https://webapps.dol.gov/dolfaq/go-dol-faq.asp?faqid=67><https://webapps.dol.gov/dolfaq/go-dol-faq.asp?faqid=67>

¹⁷ Racial/ethnic minority includes members of a group that have been subjected to racial or ethnic prejudice or cultural bias within American society or individuals with limited English proficiency. (<https://home.treasury.gov/system/files/136/HAF-Guidance.pdf>)

¹⁸ S. Rufat, E. Tate, C.G. Burton, A. S. Maroof, "Social vulnerability to floods: Review of case studies and implications for measurement," International Journal of Disaster Risk Reduction, December 2015. <https://www.sciencedirect.com/science/article/pii/S2212420915300935>

Criteria	Definition
	<ul style="list-style-type: none"> • Access is blocked in a 10% (ten-year) flood. • The property is in a floodway with the average velocity of floodwaters of at least 3 ft/second, which is considered unsafe. • Other factors indicate potential impacts to health and safety (e.g., utility, structural, occupant health and safety, other site-specific considerations). Up to three points can be awarded for other factors.
Mitigation Priority Area	<p>Mitigation Priority Area refers to locations that are higher priority for near-term funding until more is known about long-term flood infrastructure investments in the basin.</p> <ul style="list-style-type: none"> • Locations that are higher priority are <i>outside</i> the areas expected to receive flood-damage mitigation benefits by basin-scale flood damage reduction infrastructure such as the North Shore levee¹⁹, a proposed flow-through dam near Pe Ell or a series of levees in the Centralia/Chehalis area. • OCB expects to update this criterion periodically as more information about the long-term Chehalis Basin Strategy is known.

Note: OCB considered including benefit/cost in the eligibility and prioritization criteria but determined that these considerations would be already incorporated as a part of developing flood-damage reduction recommendations in the property visit reports. This is discussed further under Step 3: Technical Review and Funding Projects.

Prioritization criteria scoring

Table 4 below outlines how OCB assigns scores to flood damage reduction projects for each prioritization criterion. OCB assigns scores to projects based on the scoring table and documents the evidence used, including written justification of any professional judgement. For most of the criteria, the point scale ranges from 0 to 5; however, the point scale for depth ranges from 0 to 8. The scoring for depth differs as it reflects the fact that flooding impacts increase much more steeply once flood waters exceed the height of the first finished floor. OCB used legacy National Flood Insurance Program (NFIP) rating tables to develop this point distribution for depth.

¹⁹ <https://ecology.wa.gov/blog/october-2024/keeping-chehalis-basin-communities-safe-and-prosperous>

Table 4. CFAR project prioritization criteria scoring

Depth Points	Depth*	Points for Other Criteria	Flood Damage Prevalence (Score = Points x 2)	Social Vulnerability	Safety & Health (Score = Points x 2)	Mitigation Priority Area
8	Base flood elevation (BFE) or flood of record > 2' over lowest finished floor (LFF)	5	Historical flooding above LFF at least twice in the last 10 years. OR the 10% flood is above LFF	5 vulnerability factors present: <ul style="list-style-type: none"> • Low-income household • Elderly • Children • Disabled • Racial/ethnic minority 	5 safety/health factors present: <ul style="list-style-type: none"> • Access blocked in a 10% flood • Velocity at least 3 ft/sec • Up to 3 other health/ safety impacts 	--
6	BFE or flood of record > 1' over LFF	4	Historical flooding above LFF once in last 10 years OR the 2% flood is above LFF	4 vulnerability factors present (see list above)	4 safety factors present (see list above)	--
5	BFE or flood of record > top of LFF	3	Historical flooding above LFF OR the 1% flood is above LFF	3 vulnerability factors present (see list above)	3 safety factors present (see list above)	Inside of the prioritized area
2	BFE or flood of record reaches the LFF (e.g., touches crawlspace joists) OR blocks vehicular access to building	2	Evidence of historical flooding having reached the building, but it is not above LFF	2 vulnerability factors present (see list above)	2 safety factors present (see list above)	--

Depth Points	Depth*	Points for Other Criteria	Flood Damage Prevalence (Score = Points x 2)	Social Vulnerability	Safety & Health (Score = Points x 2)	Mitigation Priority Area
1	BFE or flood of record touches the building	1	--	1 vulnerability factor present (see list above)	1 safety factor present (see list above)	--
0	Roads and property remain free from flooding in 1% flood (BFE)	0	No evidence of historical flooding at the structure	No vulnerability factors	No safety factors present	Outside of the prioritized area

**Note: Depth scores are not rounded for scoring (e.g., BFE 0.7' over LFF scores 5 points, not 6 points).*

After assigning scores to the projects, OCB applies weights to the criteria and then totals the weighted scores by project. Flood damage prevalence and safety/ health are weighted twice as much as the other criteria as OCB sees these criteria as the most important for understanding the potential economic, safety, and wellbeing impacts to property owners and residents. Table 5 shows an example of how OCB would score a project using the evaluation criteria and then document the data and evidence supporting the scoring.

Table 5. Prioritization criteria scoring example

Criteria	Data	Evidence	Score	Weight	Weighted Score
Depth	BFE 0.9' above LFF	Flood Insurance Rate Map (FIRM)	5	1	5
Flood Damage Prevalence	Reported flood damage in 1990; 2% and 10% floods do not get to LFF; 1% flood above LFF	Property owner reported flood damage during site visit; FEMA Flood Insurance Study (FIS) profiles; FIRM	3	2	6
Social Vulnerability	Disabled and elderly occupant	Reported by property owner	2	1	2
Safety & Health	No additional safety factors; no recorded velocity	FIRM and Flood Insurance Profile (FIS)	0	2	0

Criteria	Data	Evidence	Score	Weight	Weighted Score
Mitigation Priority Area	Property is in the priority area	Modeled, parcel-level data of flood inundations after implementation of potential basin-scale flood infrastructure	3	1	3
Total Score					16

OCB prioritizes voluntary acquisition projects separately from elevation projects given the different circumstances and budget involved. Within each category of project, OCB ranks properties for flood projects based on which have the highest total scores.

Step 3: Technical review and funding projects

Once projects are prioritized, OCB develops a proposed list of elevation, voluntary acquisition, and/or other flood damage reduction projects to fund based on the budget allocations identified by the Chehalis Basin Board. OCB then consults with outside experts to review the prioritization results to verify the criteria have been applied as intended and to answer any questions about data sources and the use of best professional judgment. OCB also consults with local jurisdictions as part of the eligibility review and during project implementation (e.g., permitting review).

After technical review, OCB staff make project funding recommendations to the OCB Director for approval and seek Chehalis Basin Board approval for any projects over \$500K. Projects can be implemented once they have been approved. This funding cycle occurs every 1-2 years, and OCB may update the schedule as the project pipeline and contractor pool develop.

OCB anticipates revising the prioritization criteria and scoring approach periodically based on lessons learned and experience with implementation. OCB will continue to work with technical experts and jurisdictions to ensure the prioritization framework is consistent, fair, and effective.

Post-Project Activities

After projects are completed, it is important to ensure they achieve their intended purpose, and that the state's investment is protected in perpetuity. For elevations and voluntary acquisitions, restrictive covenants serve as the legal instruments to preserve and maintain the function of the project.

Restrictive covenants provide Ecology legal authorization to monitor and enforce restrictions placed on properties to ensure projects serve their intended purpose of flood damage reduction and that investments maximize project benefits. CFAR most commonly uses non-conversion covenants for elevation projects and conservation covenants for voluntary acquisitions.

Non-conversion covenants

A non-conversion covenant is a legal document signed by the property owner and Ecology staff with the purpose to restrict the area beneath the elevated first floor from incompatible uses. In addition to outlining prohibited uses beneath the elevated first floor of a property, non-conversion covenants also identify property owner and Ecology's responsibilities around monitoring and enforcement.

After an elevation project is complete, the property owner has several obligations outlined in the covenant, in addition to the restricted uses. They must:

- Maintain an appropriate level of flood insurance.
- Display a sign in an elevated area noting covenant restrictions.
- Prevent obstructions of openings/flood vents below a specified elevation.
- Limit use of the area under the elevated first floor to building access, limited storage, and parking.
- Agree to notify OCB of modifications or violations.
- Agree to liability rules.

Ecology explains these requirements to homeowners early in the elevation project process to ensure they are aware of them. Property owners must then obtain a notarized signature agreeing to the non-conversion covenant prior to construction, and Ecology records the covenant on the owner's behalf after construction is complete.

Conservation covenants

Voluntary acquisitions through CFAR primarily use conservation covenants to ensure that the property acquired for flood damage reduction is protected as open space in perpetuity. Conservation covenants are recorded on the deed and outline prohibited uses of the property, such as residential uses or development.

See the [Chehalis Basin Strategy Voluntary Acquisition Handbook](#)²⁰ for more detail on conservation covenants.

Monitoring and enforcement of covenants

After a project is complete, OCB may inspect the property once per year to verify compliance. OCB must provide landowners at least 48-hour notice of entry to inspect the property. If a violation is discovered, the property owner is given 30 days to correct the violation, unless the violation places occupants in serious jeopardy or harm.

Ecology informs the relevant local/tribal jurisdiction when a covenant is recorded on a property for their awareness. Ecology/OCB also proactively coordinates with jurisdictions to identify and resolve any potential non-compliance issues that may arise. If any violations occur, Ecology and the local/tribal jurisdictions follow established legal processes for enforcement.

²⁰ <https://apps.ecology.wa.gov/publications/SummaryPages/2513004.html>

Contracting Approach

To provide flood assistance through CFAR, OCB contracts for the following services:

- **Engineering design services** and construction management for elevation construction projects, which is provided through a professional services contract.
- Construction services for elevation and floodproofing projects, which is provided through public works contracts.
- Real estate transaction support for voluntary acquisitions and/or relocations, which is provided through a professional services contract for a real estate specialist.
- Cultural resources review, which is provided by a Chehalis Basin Strategy cultural resources specialist contractor.

OCB also directly purchases appraisals and uses interagency agreements to support transferring ownership of voluntarily acquired properties to agencies (e.g., local governments) that can hold title over the long term. Ecology is not able to hold title to properties.

Outreach and Coordination with Other Chehalis Basin Strategy Programs

Outreach and communications

OCB conducts broad outreach and communications about the Chehalis Basin Strategy, including high-level outreach related to the CFAR program and services. OCB's CFAR staff focus on (a) providing customized, site-specific technical assistance, and (b) carrying out flood damage reduction projects such as home elevations and voluntary acquisitions. Through this work, CFAR staff may identify additional education and outreach products that the overall OCB communications efforts may support, such as the [renter resources webpage](#).²¹ OCB also coordinates with local and tribal jurisdictions during the prioritization and implementation of flood projects, as noted above.

Coordination with Chehalis Basin Strategy programs

CFAR is one of several OCB programs that comprise the Chehalis Basin Strategy. Key areas of coordination with other programs include the following:

- **Acquisition:** An acquisition workgroup advised OCB on the development of the Chehalis Basin Strategy Voluntary Acquisition Handbook in 2024; OCB plans to use this guidance for CFAR acquisitions. The CFAR program may also identify projects that could qualify for the new Multi-Benefit Acquisition Program, which concentrates on projects that support the goals of flood damage reduction, aquatic species restoration, and agricultural viability.
- **Aquatic Species Restoration:** OCB's CFAR staff coordinate with the [Aquatic Species Restoration Plan](#)²² (ASRP) regarding voluntary acquisition projects that could provide habitat restoration or multi-purpose benefits. Long-term maintenance and/or conservation covenants on these properties may also necessitate coordination with ASRP. In areas of the basin that are not ASRP priorities, explicit coordination is less critical but may still be advisable to maintain awareness of ongoing efforts.
- **Erosion Management:** The Erosion Management Program helps landowners in the basin who face threats from bank erosion and channel migration. Depending on site-specific conditions, a property may be eligible for both flood assistance from CFAR to address flood hazards to structures and erosion management assistance from the Erosion Management Program to implement bioengineered solutions to minimize erosion. Local

²¹ <https://chehalisbasinstrategy.com/renters-resources/>

²² <https://chehalisbasinstrategy.com/asrp/>

agencies, usually conservation districts, propose erosion management projects; to learn more, see the [erosion management website](#).²³

- **Flood-Protection Infrastructure Projects:** The Chehalis River Basin Flood Authority works closely with OCB to tackle flood damage reduction by soliciting proposals and funding local flood mitigation projects from local governments every biennium. The Chehalis Basin Board is also considering basin-scale flood-damage reduction infrastructure for the Chehalis Basin Strategy such as a flow-through dam near Pe Ell or a system of levees, diversion, and conveyance improvements. The CFAR prioritization criteria in this program framework reflect consideration of these basin-scale infrastructure projects and will be adjusted when the Board determines the final Chehalis Basin Strategy.

²³ <https://chehalisbasinstrategy.com/erosion-management-program/>

Metrics, Program Growth, and Continual Improvement

This section summarizes how OCB plans to monitor and improve the performance of the technical and project-based programs of CFAR over time.

Metrics

OCB plans to track and evaluate progress on the flood assistance goals for CFAR, as well as identify opportunities for improvements to the program, using the following metrics.

Table 6. Proposed metrics to evaluate and improve the CFAR program

Type of Metric	Metric
Reduced flood hazards (outcome metrics)	<ul style="list-style-type: none"> • Number of home elevations completed • Number of voluntary acquisitions completed • Number/percent of properties that acted on flood assistance recommendations about six months after receiving a technical assistance report • Number of home elevations still in place 5-years post-construction
Technical assistance provided (output/activity metrics)	<ul style="list-style-type: none"> • Number of properties that requested flood assistance and the number of properties OCB assisted • Number and type of technical assistance responses provided (phone/email response, neighborhood flood response plan, property visit report, flood damage reduction project) • Number and demographics (voluntarily provided) of those assisted with technical assistance reports at each residence, including vulnerable populations such as children, elderly, disabled, racial/ethnic minorities, and low-income people.
Service efficiency (process metrics)	<ul style="list-style-type: none"> • Costs for completed elevations and acquisitions (This will be useful to continually review whether acquisitions or elevations are recommended.) • Time (weeks) to complete a property visit report from inquiry to draft report.

Type of Metric	Metric
	<ul style="list-style-type: none"> • Time (months) to complete a construction project (from decision to fund to final inspection)

These metrics require some additional data collection beyond what OCB collected in the pilot phase of the program. Prior to 2025, OCB only informally asked recipients for feedback on the usefulness of CFAR technical assistance services. OCB did not previously ask for demographic data about program participants, but this information will be helpful to track whether OCB is assisting communities that are most vulnerable to flood impacts and to assist in prioritizing flood damage reduction projects (see Prioritization section).

Starting in 2025, OCB proposes to ask property owners that receive in-depth forms of technical assistance, such as a neighborhood flood response plan or property visit report, to respond to a short follow-up survey about six months after they receive technical assistance. The purpose of the survey would be to ask whether respondents have acted on any of the recommended actions in the technical assistance report or whether they need additional assistance.

OCB also plans to ask property owners receiving in-depth flood assistance whether they are willing to voluntarily share additional information about property residents to aid in understanding who the CFAR program is assisting and to support prioritization of properties for flood projects. This information could include number of residents, if household income is low, and presence of children, elderly, racial/ethnic minorities, and/or people with disabilities, consistent with the social vulnerability prioritization criterion (see Prioritization section).

Scaling CFAR efforts over time

CFAR complements local-scale and basin-scale flood-damage reduction projects by supporting individual property owners with flood assistance in areas that are not protected by approved projects. OCB expects to evolve and scale up the CFAR program over time, especially after the Chehalis Basin Board determines a long-term strategy for flood damage reduction and aquatic species restoration for the basin. OCB anticipates that voluntary acquisitions and home elevations through CFAR will be a significant component of that long-term strategy, and there will be more certainty about areas that will be protected by any basin-scale flood infrastructure.

When and if OCB evolves and scales up the CFAR program to address these basin-wide needs, there are several important considerations, including, but not limited to, the following:

- OCB may need to conduct more dedicated outreach and communication efforts through CFAR to proactively reach communities that are most vulnerable and at risk of flooding.
- This could involve a range of strategies and tactics for making residents and property owners aware of flood assistance services available.

- Contractor outreach and development will be critical, so that OCB can efficiently secure contractors to construct elevation projects.
- Whenever OCB plans to issue a request for bid on construction projects, OCB should conduct focused outreach to contractors and contractor-affiliated organizations such as the Master Builders Association, International Association of Structural Movers (including house raisers), and the [Flood Mitigation Industry Association](#)²⁴ to inform them of the contracting opportunity and encourage them to bid.
- Additional education and technical support may be needed to develop a robust, local pool of contractors that are able to support the demand for home elevations in the Chehalis Basin.
- New strategies may be needed to take advantage of economies of scale for voluntary acquisition projects and/or clustering elevation projects to make them more attractive to contractors.
- As CFAR evolves, there will be an increased need to coordinate across OCB programs that conduct related work, such as multi-benefit acquisitions, erosion management, and other flood mitigation projects, as other programs will continue to evolve as well.
- Program needs could change based on other work occurring throughout the basin, expanded project portfolios, and funding prioritization.
- At the 2023-25 biennium's program funding level, only one full-time staff member is budgeted to implement the CFAR program, along with additional consultant support. OCB will need to evaluate additional staffing, expertise, and support needs with any programmatic scale-up. As such, OCB will review and update the CFAR program framework on a biennial basis to ensure that the guidance keeps up with programmatic growth or changes.

Continual improvement

OCB expects to continually improve the CFAR program over time. This may include improving the efficiency to complete projects, identifying sustainable funding sources, further developing a network of contractors to support projects, expanding services to meet business needs, and/or scaling up the program to address long-term Strategy needs that may change over time. The program metrics outlined above will help OCB to evaluate how well it is meeting its goals and to identify ways to improve its services, products, and processes. OCB welcomes feedback from partners and program participants on how it can better provide flood assistance to Chehalis Basin residents and property owners.

²⁴ <https://www.floodmitigationindustry.org/>

Appendix A. Flood Assistance Request Form

The [Flood Assistance Request Form](https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Chehalis-Basin/Community-flood-assistance/assistance-form)²⁵ for individuals and businesses can be found online here

The screenshot shows the Department of Ecology website for the State of Washington. The navigation bar includes links for Home, Air & Climate, Water & Shorelines, Waste & Toxics, and Spills & Cleanup. The current page is titled "Community Flood Assistance – Contact Us" and is part of a breadcrumb trail: Water & Shorelines > Shoreline & coastal management > Chehalis Basin > Community flood assistance > Assistance form.

The form is titled "Community Flood Assistance – Contact Us" and includes the following sections:

- Personal Information:** Fields for First Name, Last Name, Business Name (if applicable), Email address, and Phone number. A note below the phone number field says "e.g. (360) XXX-XXXX".
- Property information:** Fields for Street address, City, County (a dropdown menu with "Select one:"), and ZIP Code. A note below the street address field says "Please list the address of the property that you are requesting assistance for."
- Flood Information:** Fields for Date of last known flood, What was the source of flooding? (a dropdown menu with "Select one:"), What was flooded?, and a text area for "List any other information you would like us to know." A note below the text area says "Please limit your response to 500 characters or less, including spaces."

A "Submit" button is located at the bottom of the form.

²⁵<https://ecology.wa.gov/Water-Shorelines/Shoreline-coastal-management/Chehalis-Basin/Community-flood-assistance/assistance-form>

Appendix B. Workgroup Process Summary

OCB convened a workgroup comprised of technical experts, local jurisdictions, and stakeholders to inform the development of this long-term program framework for CFAR technical assistance and flood damage reduction projects. Workgroup members included:

- Lee Napier, Lewis County*
- Darlene Purl, Centralia community representative*
- Sarah Reich, ECONorthwest
- Renee Reynolds, City of Aberdeen
- Alex Rosen, Washington State Department of Ecology
- Doyle Sanford, Lewis County
- French Wetmore, French & Associates
- Christina Wollman, Perteet
- Ken Zweig, King County

OCB and Facilitation Support

- Kat Dickey, OCB
- Nat Kale, OCB
- Jenn Tice, Ross Strategic
- Casey Hart, Ross Strategic

The workgroup met 12 times from September 2023 to October 2024 and provided input on a variety of topics, including:

- Criteria and process for prioritizing projects
- Recommended roles and processes for coordinating with local jurisdictions
- Ways to improve the usefulness of technical assistance products
- Lessons learned and insights to incorporate from other programs
- Program priorities for flood assistance services and outreach activities

- Metrics for evaluating success and improving performance over time

OCB is very grateful for the valuable contributions from workgroup members, whose input will enable OCB to improve its flood assistance services for people in the Chehalis Basin.

** Participated for the first part of the workgroup process.*