

Executive Summary

The goal of the Environmental Protection Agency’s Duwamish Seafood Consumption Institutional Control (IC) Program is to promote culturally appropriate, healthy actions that protect the health and well-being of fishing communities, especially pregnant women, nursing moms, and young children, from the contaminated resident seafood in the Lower Duwamish Waterway (LDW) Superfund site before, during, and after the cleanup.

Purpose of the ICIAP (Program Plan)

The Institutional Control Implementation and Assurance Plan (ICIAP) serves as a “living road map” that guides the work of the EPA’s IC program toward its goal. This plan describes the key strategies to promote healthy seafood consumption that can be carried out within the scope of the program. In addition, the ICIAP has recommendations for partnerships to address additional barriers that are outside the scope of the EPA’s program.

This program (also known as the Fun to Catch, Toxic to Eat Program) is part of the EPA's cleanup efforts on the Duwamish River. Public Health – Seattle & King County (Public Health) leads the program work for the EPA under a Cooperative Agreement (2017–2021). Public Health’s annual work plans will describe the tasks to implement and evaluate the IC strategies.

As part of the ongoing community participatory process, the EPA and Public Health will update the ICIAP based on evaluation, monitoring, and community input throughout the cleanup process for the LDW Superfund site.

Developing the ICIAP with Community Input

From June 2018 to May 2019, Public Health facilitated seven Community Steering Committee (CSC) workshops. Fifteen Community Health Advocates (CHAs) who had received prior training on this issue participated on the CSC. They represented fishers and community members who receive local seafood catch (including moms). They are also well connected to the local Vietnamese, Cambodian, and Latino fishing communities.

The CSC shared valuable insights and cultural expertise about the primary audiences for this program: Duwamish fishers and pregnant moms or caregivers of young children who receive local seafood catch. They

I feel very fortunate to be able to join this CSC group. I feel that I am being valued to be able to express and make decisions around the subject that matter to human life. I am valued and my voice is being heard—to make decisions and inputs to protect people’s health around contaminations in the Duwamish. ... At CSC, we are being empowered to be power in the communities.

—Cambodian CSC member, 2018

discussed the barriers that these groups face in protecting themselves from contaminated resident seafood. They worked together to identify and prioritize key IC strategies and recommendations for partnerships.

Background on the Lower Duwamish Waterway (LDW) Superfund Site

Over the past century, the Duwamish River became polluted with toxic chemicals from many sources, including stormwater runoff, wastewater, and industrial practices. In 2001, the EPA declared the last five-mile segment of the Seattle's only river the Lower Duwamish Waterway (LDW) Superfund site. Superfund is the name of a federal law that required the nation's most toxic sites to be identified and cleaned up. The river flows between Georgetown and South Park and through the industrial core of Seattle into Elliott Bay. Before entering Elliott Bay, the last mile of the Duwamish River splits into East and West Waterways. These two Waterways are operable units of Harbor Island Superfund site - which is separate from the LDW Superfund Site.

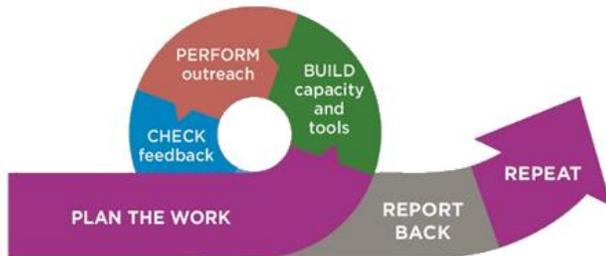
In 2014, the EPA issued a Final Cleanup Plan, also known as a "Record of Decision (ROD)," for cleaning up the contaminated mud on the river bottom. The ROD also requires Institutional Controls (ICs) to protect people who fish and eat the resident seafood, which is contaminated with high levels of polychlorinated biphenyls (PCBs). A common example of an IC is to issue a "seafood consumption advisory." This is a health warning to limit or avoid eating certain seafood caught from local waters due to chemical pollution. Health officials recommend salmon as the only seafood safe to eat from the Duwamish River because they spend only a short time in the river.

The LDW Fishers Study conducted between 2014-2016 found that more than 20 ethnic/language groups fish on the Duwamish River. Fishers from Asian/Pacific Islander (API) and Latino immigrant communities are catching, eating, and sharing the contaminated seafood from the river. Posted health warning signs have not been effective in reaching fishers who speak little to no English—most of these fishers speak Vietnamese, Cambodian (Khmer), or Spanish. The study also found that fishing offers many benefits: it is fun and relaxing; it provides fresh food and time for socializing; fishers learn from each other; and it creates a sense of community among fishers.

Environmental Justice & Community Participatory Process

Environmental Justice (EJ) is the “fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”

Community Informs All Stages



All of the processes, they [Public Health] have always included us in the process. They make us feel important, we are united, and it's always been that way—they ask us to be part of everything, every step. We are making history, since it's not seen elsewhere. Normally, a decision is made in an office and that is it, but not here. They've included us, since we are the community—kind of like for the community, by the community.

—Latino CHA, 2018

The EPA recognizes the importance of a community-based approach to better understand the unique needs of the affected Duwamish fishing communities. Public Health's community participatory approach reflects the interrelated EJ principles of **capacity-building**, **meaningful involvement**, and **empowerment**. This program will require flexibility and continuous feedback to adapt to community input during program design, implementation, monitoring, and evaluation.

Independent from the EPA's program goal, the CSC defined its long-term EJ vision for the Duwamish River (see below). Achieving this vision is bigger than the EPA's cleanup process, and requires the efforts led by the communities, local governments, agencies, and community organizations working together toward this EJ vision.

Long-Term Environmental Justice Vision for the Duwamish River (2018 CSC):

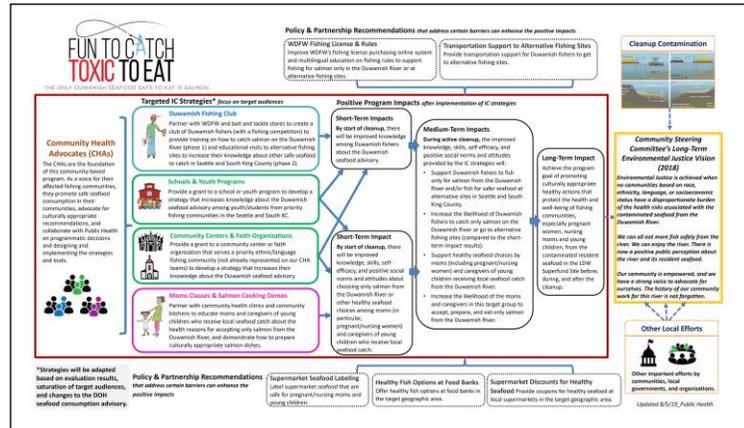
Environmental Justice is achieved when no communities based on race, ethnicity, language, or socioeconomic status have a disproportionate burden of the health risks associated with the contaminated seafood from the Duwamish River.

We can all eat more fish safely from the river. We can enjoy the river. There is now a positive public perception about the river and its resident seafood.

Our community is empowered, and we have a strong voice to advocate for ourselves. The history of our community work for this river is not forgotten.

Key Strategies & Recommendations

Public Health worked with the CSC to synthesize their input into a road map for the program. The road map summarizes the **targeted IC strategies** to reach the goal within the scope of the IC program. It also captures the CSC's **policy and partnership recommendations** to address additional barriers outside the EPA's scope. The EPA will encourage agencies and organizations at the Healthy Seafood Consumption Consortium to partner on these recommendations.



See Figure 3 in the report for the road map.

Targeted IC Strategies (inside the EPA's IC Program Scope)

- CHA Training & Outreach Strategy.** The CHAs are the foundation of this community-based program. Based on the Community Health Worker/Promotor Model, this strategy builds on the CHAs' strengths, cultural expertise and self-empowerment, while increasing their capacity (knowledge and skills) to promote healthy seafood consumption actions in their communities. As a voice for their community, they advocate for culturally appropriate recommendations and collaborate with Public Health and the EPA on programmatic decisions, strategies, and tools. Currently, Public Health is working with the Cambodian, Latino and Vietnamese CHA groups, representing some of the fishing communities that are most likely to eat contaminated seafood from the Duwamish River.
- Duwamish Fishing Club Strategy.** Public Health and the CHAs will partner with the Washington State Department of Fish and Wildlife (WDFW) and bait and tackle stores to create a club of Duwamish fishers (with a fishing competition). This club will provide training on how to catch salmon on the Duwamish River (phase 1) and educational visits to alternative fishing sites to increase knowledge about other safe seafood to catch in Seattle and South King County (phase 2).
- Moms' Classes at Health Clinics & Salmon Cooking Demos.** Public Health and the CHAs will partner with community health clinics and community kitchens to educate moms (particularly pregnant and nursing women) and caregivers of young children who receive local seafood catch. They will learn about health reasons for accepting only salmon from the Duwamish River and how to prepare culturally appropriate salmon dishes.
- Strategies by Influencers and Messengers (via Community Grants).** Public Health will provide grants to community centers/faith organizations and schools/youth programs to design additional strategies to

reach fishers and moms. This will also build new community partnerships with ethnic/language fishing communities not represented on the CHA teams.

- **Communications Strategy.** CHA teams and community grantees can incorporate media communications to complement their on-the-ground efforts. The CSC has prioritized multiple ways to use ethnic media (radio, TV news, print news) and online platforms (website and social media) in this program plan.

Policy & Partnership Recommendations (outside the EPA's IC Program Scope)

- **WDFW Fishing License & Rules.** Improve WDFW's online system for buying fishing licenses and provide multilingual education on fishing rules to support salmon-only fishing in the Duwamish River and fishing for other species at alternative sites.
- **Transportation Support to Alternative Fishing Sites.** Provide transportation support for Duwamish fishers to get to alternative fishing sites on a regular basis.
- **Supermarket Seafood Labeling.** Label supermarket seafood that is safe for pregnant/nursing moms and young children.
- **Healthy Fish Options at Food Banks.** Offer healthy fish options at food banks in the target geographic area.
- **Supermarket Discounts for Healthy Seafood.** Provide coupons for healthy seafood at local supermarkets in the target geographic area.

Monitoring, Evaluation, and Reporting

The ICIAP provides an initial framework on IC strategies to reach the program goal. For long-term success, each strategy will be monitored for specific outcomes and the program will be evaluated for its overall impact in the Duwamish fishing community before, during, and after cleanup. These findings and ongoing input from the CHAs, CSC, and community grantees will help to improve the strategies or adapt the program plan over time.

- **Assessment of community participatory process.** This ensures that the voices of the most affected are part of the process in developing, implementing, and evaluating the program. This assessment will focus on how the program affects the capacity building, meaningful involvement, and empowerment of the CHAs and CSC members.
- **Monitoring of specific IC strategies.** The strategies will be designed to help the affected groups gain relevant knowledge and skills; build self-efficacy or belief in their ability to take action; and foster positive social norms and attitudes around safe seafood consumption related to the Duwamish River. Evaluating each strategy will determine whether it achieves its objective, faces any challenges, or needs improvements.
- **Tracking of policy and partnership recommendations.** Through evaluation of the IC strategies, Public Health will monitor whether the Duwamish fishing communities continue to experience barriers, or if they benefit from policy, institutional, structural, or systems changes enacted through these partnerships. Public Health will track whether changes or actions have been made by agencies,

institutions, or organizational partners in response to these recommendations, and provide this context when reporting about the program impacts from the IC strategies.

- **Evaluation of positive program impacts.** After implementing the various IC strategies, the program can be evaluated for its impact in promoting healthy actions in the Duwamish fishing community by the start of cleanup (short-term), during active cleanup (medium-term) and after cleanup (long-term). These program impacts include:
 - Improved knowledge, skills, self-efficacy, and positive social norms and attitudes among Duwamish fishers and moms
 - Increased likelihood of Duwamish fishers to catch only salmon on the river
 - Increased likelihood for moms to accept, prepare, and eat only salmon from the river
 - Support for Duwamish fishers to fish for salmon only or fish at alternative sites
 - Support for moms to choose healthy seafood options
- **Reporting.** There are various types of reporting for the work being performed under the program, including annual work plans, quarterly progress reports, annual program fact sheets, evaluation plans, and presentations.

Modifying the ICIAP

The CSC will serve as an ongoing space to gather the voices of those most affected by the contaminated seafood and as a vehicle for them to share and discuss areas of improvement in the program with the EPA and Public Health. The CSC can propose changes to the ICIAP. Public Health will update the ICIAP as needed, based on community input and evaluation results.

While the goal of the program remains the same, the ICIAP will be updated when there are substantial changes to the core components of the program plan (including strategies, audiences, road map, and logic models). The EPA will review and approve the updates to the ICIAP and will make the final decision regarding changes to the ICIAP.