

# Addressing seafood contamination for subsistence fishers: Community participatory learning & action



APHA  
November 2, 2016  
Linn Gould, MS, MPH

# Presenter Disclosures

**The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:**

No relationships to disclose

# Today



- Background
- Vietnamese fisher pilot – “DROF 1”
- Latino fisher pilot – “DROF 2”
- Community Health Advocate fisher pilot – “DROF 3”
- What’s next?



Spokane Street Bridge - Seattle Times



# Lower Duwamish Waterway - Seattle, WA

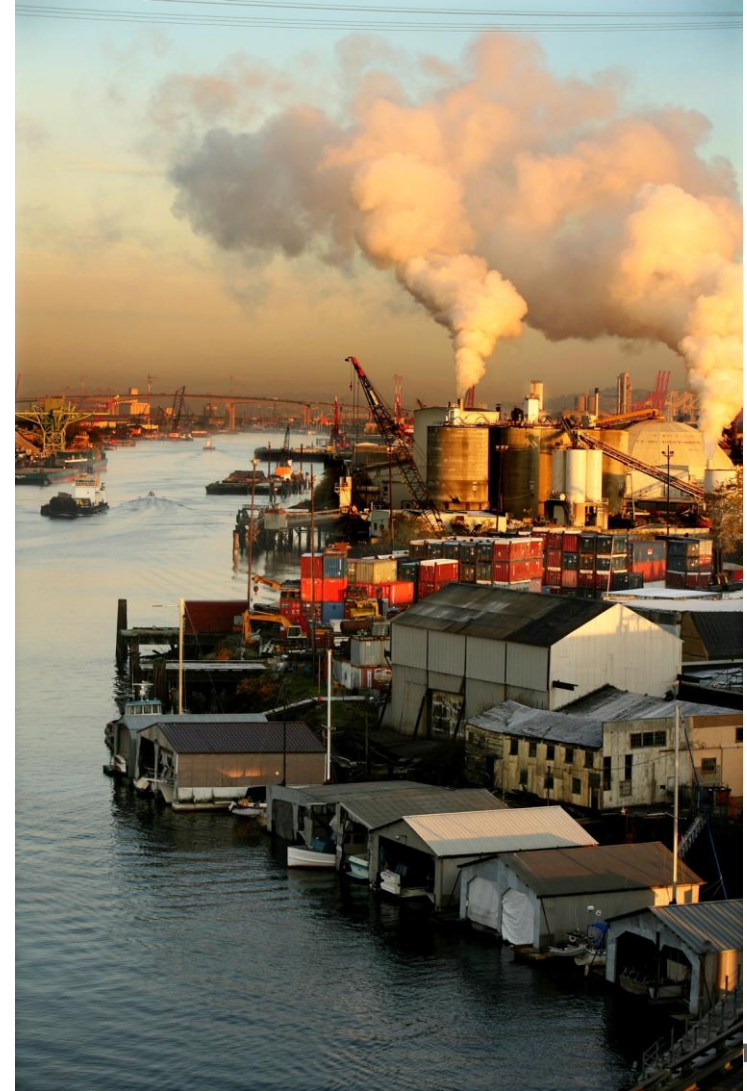


In 2001, the EPA listed the Duwamish River as one of America's most toxic waste sites.



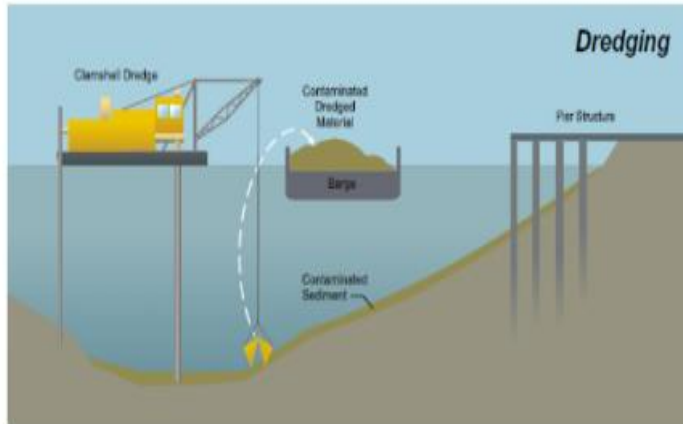


# Duwamish Valley Industrial Base

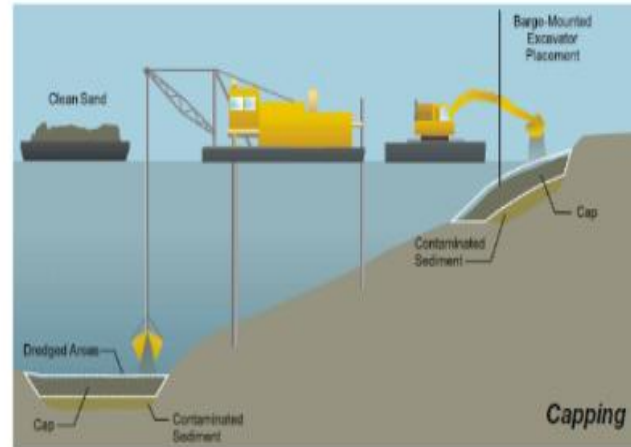


# Cleaning up the Lower Duwamish Waterway Superfund Site

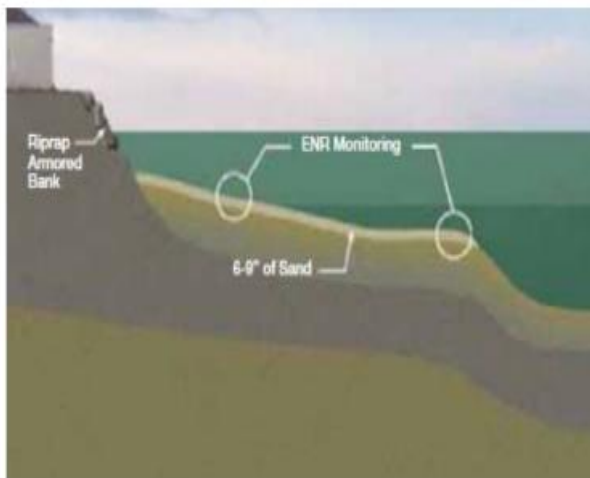
## DREDGING



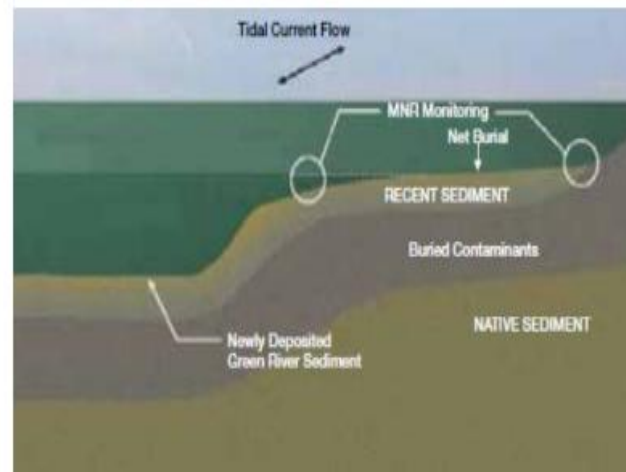
## CAPPING



## ENHANCED NATURAL RECOVERY



## MONITORED NATURAL RECOVERY



17 year cleanup

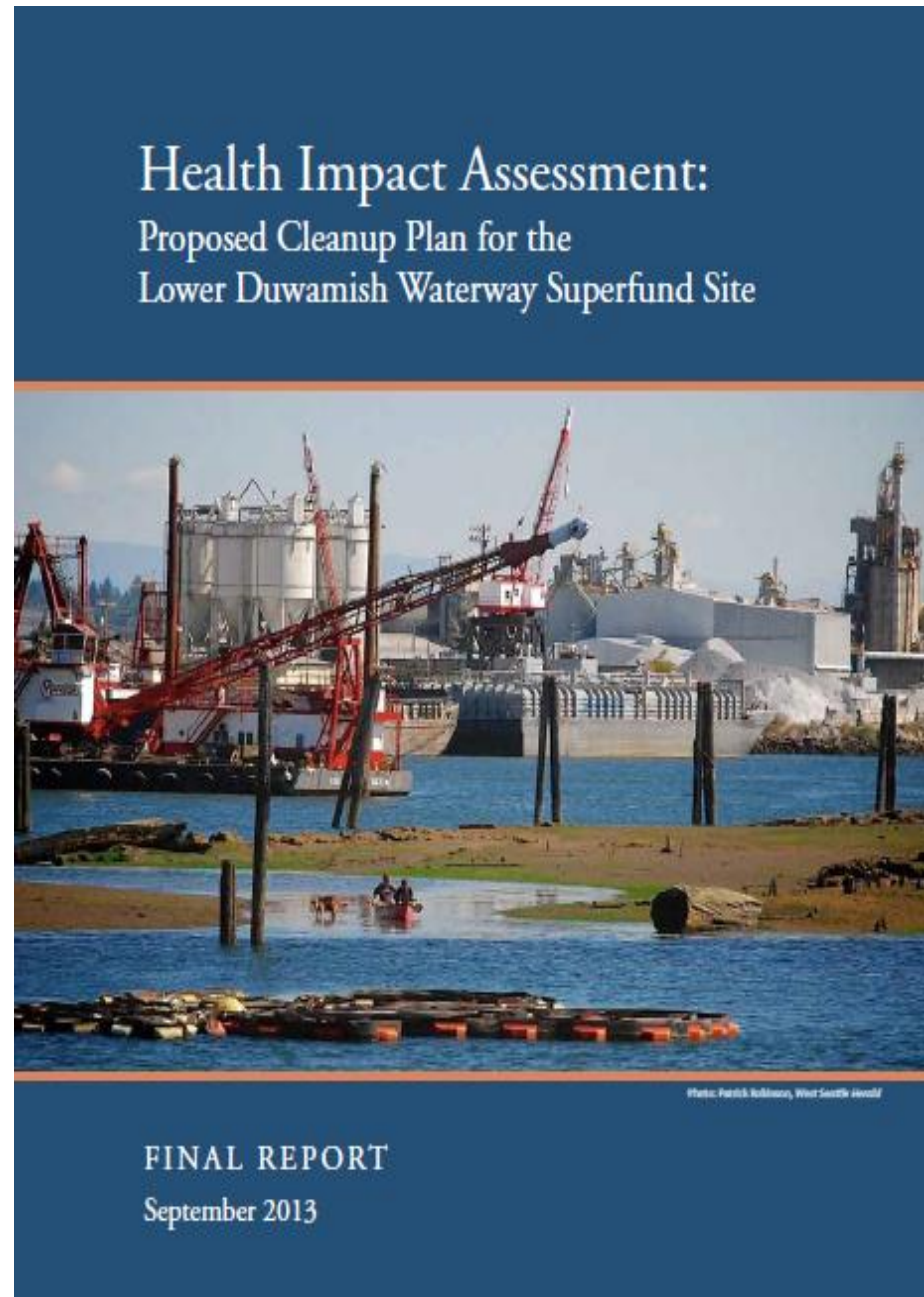
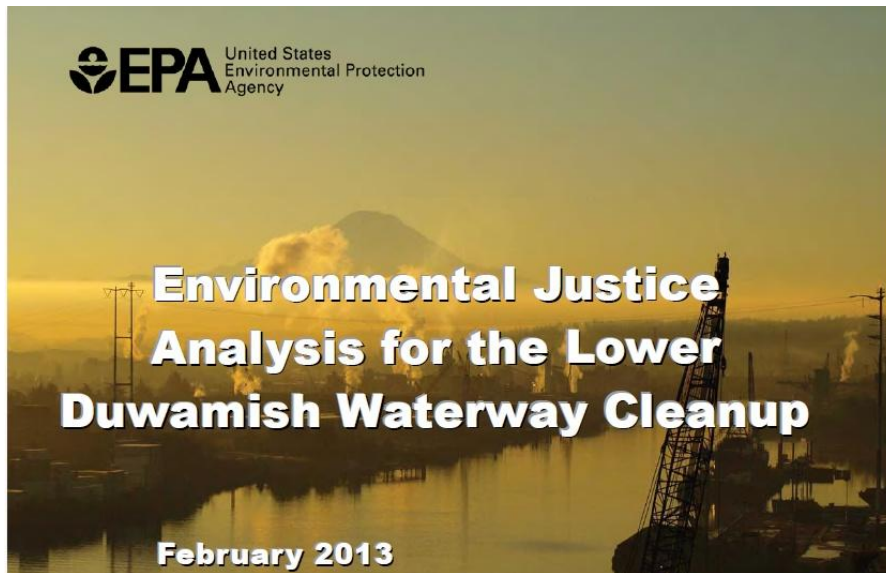


# Residual contamination forever





# Our concern: Advisories ineffective for subsistence fisher populations



# Institutional Controls (fish advisories)



- Photographic and survey evidence that advisories ignored on LDW
- Burden placed on vulnerable populations vs those responsible for risk
- Advisories assume that behavior change is best when cultural/spiritual and food insecurity are higher priority
- Unintended health consequences of changing from seafood diet to another food source



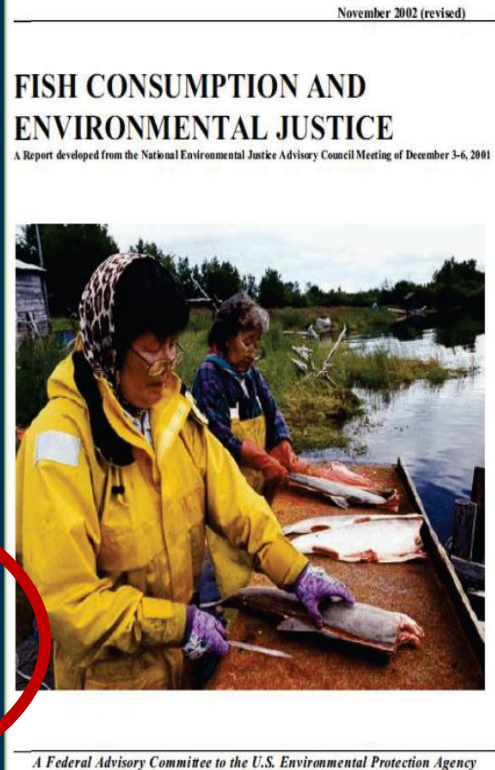
Rhonda Kaetzel, PhD and Sinang Lee, MPH



# For fish advisories to be effective: Community capacity building and empowerment



*...It is crucial that those affected play central roles in developing and disseminating the information that they deem appropriate to their needs. Such efforts- led by those in the community, and supported by the EPA and other agencies, can contribute to the large goals of..."participatory learning and culturally-appropriate organizing" (P. 104)*



# Duwamish River Opportunity Fund (aka DROF)



## DUWAMISH RIVER OPPORTUNITY FUND



The Duwamish is our city's only river, but that is not the only thing that makes it special. Native Americans use the Duwamish as a resource and for cultural purposes. Salmon and trout use it as a migration corridor and a large number of fish and wildlife species use the estuary for rearing. The Duwamish is also a working waterway that supports many of Seattle's shipping and industrial businesses.

Decades of industry near the Duwamish have left significant contamination in the mud and along the river's banks.

In 2001, The United States Environmental Protection Agency (EPA) listed a 5.5 mile stretch of the Duwamish River as a [Superfund cleanup site](#). Since then, the City of Seattle, King County, the Port of Seattle and the Boeing Company have invested over \$100 Million in early cleanup actions to reduce contamination by 50 percent, while we also work to eliminate ongoing sources of

### RELATED LINKS

- [2014 Recipients](#)
- [2015 Application](#)
- [Review and Approval Process](#)
- [2015 Implementation Schedule](#)
- [Learn more about the Duwamish](#)
- [Learn more about early actions](#)
- [EPA proposed clean-up plan](#)

### OPEN HOUSE

Prospective applicants are encouraged to attend a community event about the Duwamish River Opportunity Fund on Wednesday, April 8 from 5:30 to 8:30 p.m. in Georgetown at:

[Coliman Restaurant](#)

6932 Carleton Avenue S ([Map](#))



# Vietnamese Subsistence Fisher Case Study (aka “DROF1” - 2015)



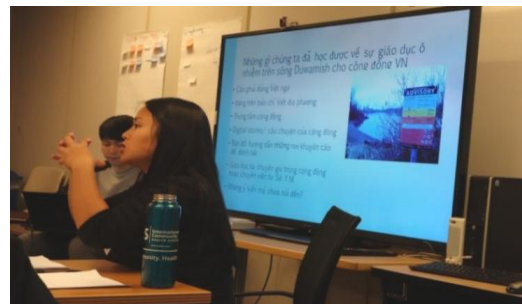
# “DROF 1” Partners



Vietnamese Advisory Group and project team



Linn Gould



Khanh Ho/ICHS Community Mobilizer



Paul Le  
ICHS HealthCorps



Sinang Lee and Dr.  
Rhonda Kaetzel/PHSKC



Emi Yoko/  
MPH



Dr Bill  
Daniell/UW





# Model:

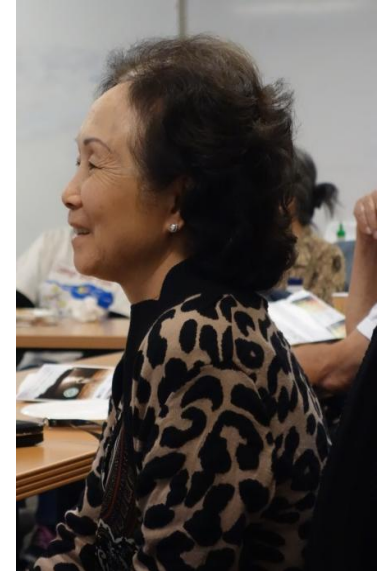


- Critical reflection, analysis, and collective action
- Facilitation process that aims to bring about change
- Learning by all participants, valuing diversity, supporting group interactions

# Vietnamese (VN) subsistence fisher model



- Set up a VN Advisory Group (AG) as “community experts”  
(13 members, 4 meetings, \$50 stipends/meeting)
- **Learn** about VN values and practices around fishing
- **Learn** how to share messages with the VN community about the contamination in the Lower Duwamish River
- Ask AG’ s **opinion/advice** about **alternatives** to fishing the Lower Duwamish River
- Continuous check-in to assure consensus
- Share AG’ s opinions with government agencies, non-profits and the community can collaborate for action





# Meeting 1:

## What we learned:

- CULTURE

- Fishing is part of Vietnamese culture
- Pass on knowledge from generation to generation “cha truyền con nối”
- Fish for passion/recreation
- Share catch with others



- HEALTH

- Fish are healthy and delicious to eat, esp. for pregnant women and children
- Freshly caught fish is more healthy and natural than raised fish



- FISH ADVISORIES AND WARDENS

- Recognize and understand warning signs
- Fishing laws in US are confusing and strict—but rational
- Established and more regulated places are safer to fish in
- Wardens are scary



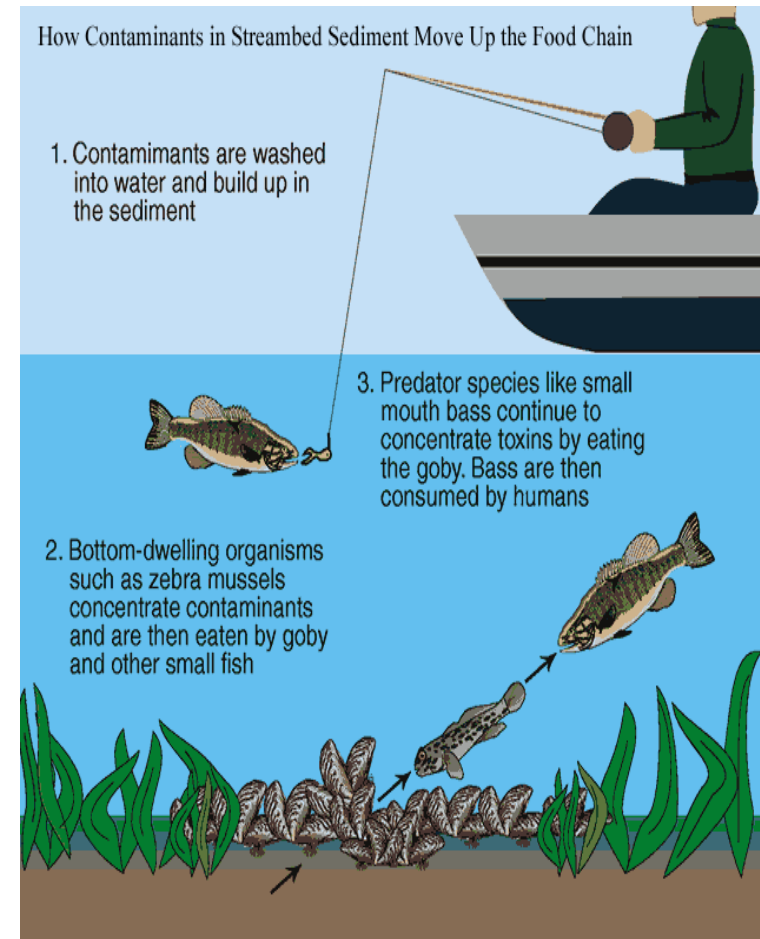
# Meeting 2, Part 1- Expert health panel

## On bioaccumulation:

*The bottom of the river is already contaminated, fish and shrimp living there will eat the mud and algae that are toxic and when we eat those fish and shrimp, we will be consuming that toxic too.*

## On sharing:

*Our friends and neighbors share their catch with us..... We see that it's freshly caught and that's already so delicious, we didn't even ask, we didn't know whether it's from that river or not.*





# Two agencies have different messages

- Oh, so two departments not talking so one let you fish but one says it's harmful to eat. I see how it is.*
- So they (WDFW) know that the fish are toxic yet they still sell us the license to fish without warning us what fish are bad for us to eat.*



08_DOC#: 56908506587124					
SUMMER Puget Sound Dungeness Crab Catch Record Card Valid through September 1, 2008					
Name:		WILD ID:			
City/State of Residence:		Issue Date:			
Dealer ID:					
Report Crab Catch					
Option 1					
Return card to address below by September 15, 2008					
Return To: WDFW Fish / CRC Office 600 Capitol Way N Olympia WA 98501-1091					
Option 2					
Report catch card information on the Internet between September 2-15, 2008, at <a href="http://www.fishhunt.dfw.wa.gov">www.fishhunt.dfw.wa.gov</a>					
NOTE: Card must be returned or information reported on the Internet even if no crab were kept					
Season opening dates, closures, and restrictions are available in the Sport Fishing Rules pamphlet, on the toll-free shellfish rule change hotline 1-(866) 880-5431, and on the Internet at <a href="http://www.wdfw.wa.gov">www.wdfw.wa.gov</a>					
Use ballpoint pen only. Do not use a felt tipped pen					
No more than 5 legal-sized male Dungeness crab can be kept on each open day.					
Immediately upon retaining a Dungeness crab, you are required to record your catch by completing the record below. Failure to do so is a violation of WAC 220-52-175.					
SUMMER CATCH CARD					
08_DOC#: 56908506587124					
	Month	Day	Marine Area	Check (✓) one box for each crab kept	Crab Kept Per Day
EX	7	5	8-2	✓ ✓ ✓ ✓ ✓	5
EX	8	7	12	✓ ✓ ✓	3

## Meeting 2, Part 2:

### What should educational outreach to VN community look like?

- *VN newspapers is the best to outreach....*
- *And more advisory meetings like this but for other nationalities so everyone has the same information about these issues.*
- *The young people too busy working, so we the elders can help out reaching and teaching people*

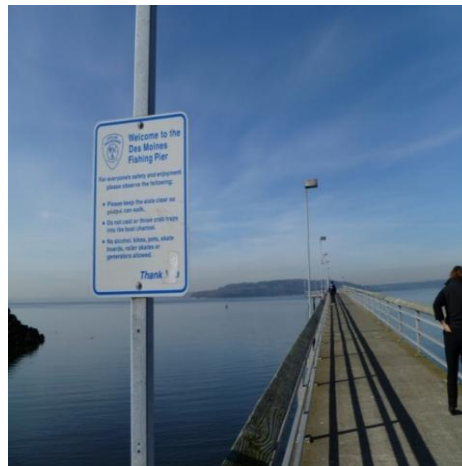




# Meeting 3: Alternatives –

*If River cannot be fished, what other choices won't change your cultural or food security needs?*

1. Game wardens (WA Dept Fish & Wildlife)
2. Fishing piers around Puget Sound
3. Stocked ponds



# Action Tool: VN Newspaper article

*In the Vietnamese community, these two newspapers (Viet Today and Viet NW) are the most circulated, almost every body reads it*

*The river is contaminated, so need to stay away from the seafood, but you can eat salmon. The river is in the process of being clean for the next 17 years.*

Người Việt Tây Bắc số 2282 Thứ Sáu Ngày 21 tháng 08 năm 2015

## tìm biện pháp giữ an toàn cho hoạt tiêu thụ hải sản tại sông Duwamish



nghe từ các cộng đồng ngư dân địa phương Việt.

Nghiên cứu thí điểm này đã tạo ra một nhóm tư vấn cho người Việt Nam bao gồm các ngư dân đang hoạt động cũng như các nhà nghiên cứu về sức khỏe của cá. Vì vậy, tổ chức y tế có trụ sở xung quanh khu vực cho dự án đang tìm các phương án hiệu quả hơn để thay thế nhằm bảo vệ và giáo dục sức khỏe của các ngư dân Việt Nam, đánh bắt cá được gần dân sinh sống và những người chặt chẽ với nền văn hóa Việt.

tiêu thụ hải sản đánh bắt được từ Những người tham gia giải thích rằng, Duwamish, trong khi vẫn rất "câu cá là về bản sắc và giúp họ giữ gìn và tiếp nối truyền thống" và truyền cho thế hệ thống ngành hải sản, khuyến khích sau theo phong tục "Chia truyền họ tiếp tục đánh bắt hải sản để con nôi."

Trong các cuộc họp, mọi "Chúng tôi muốn khuyến khích ngư dân tiếp tục ăn hải sản để rõ ràng và rộng rãi về nguy hiểm bằng cách cung cấp cho họ với cơ sở khoa học là cần thiết." Khanh các lựa chọn khác hợp lý và phù hợp của ICHS, người dân đặt hợp hơn để bảo vệ văn hóa của nhóm tư vấn ngư dân Việt Nam họ và không tạo thêm gánh nặng cho biết.

cho dự án này trong 17 năm tới sẽ được tài trợ bởi King County, Cảng Seattle, thành phố Seattle, và Công ty Boeing.

Nhà chức trách dự tính kế hoạch này sẽ giảm mức ô nhiễm tại hạ lưu sông Duwamish một cách đáng kể, nhưng họ lo ngại rằng hải sản cư trú tại đây sẽ vẫn không an toàn cho người tiêu dùng trong nhiều năm tới. Sở Y Tế tiểu bang Washington đã cấm bán để nghị những loại hải sản an toàn có thể ăn được tại những khu vực cá và chính được theo hạ lưu sông Duwamish, nhưng được chứng minh là không có hiệu

Sau khi thảo luận và tiềm hiệu về các vấn đề ô nhiễm sông Duwamish và sự an toàn của việc ăn hải sản cư trú tại khu vực hạ lưu sông Duwamish, nhóm Tư vấn Việt kêu gọi tăng cường thêm nhiều tấm bảng chỉ dẫn tư vấn trên bờ sông Duwamish cũng như giáo dục thêm cho cộng đồng thông qua phương tiện truyền thông và báo chí.

"Nên gắn thêm những tấm bảng chỉ dẫn và tư vấn người cá, nhưng quan trọng hơn là nên giáo dục những người cá ở đầu an toàn để cá và tiêu thụ hải sản, và chỗ nào chỉ nên ăn nhưng không nên ăn," một người tham gia của các nhóm tư vấn ngư dân Việt Nam cho biết, "nhưng phải làm với cách khôn khéo để đừng xua đuổi ngư dân tới những địa điểm cá này."

"Mỗi đây chúng tôi đã sáng tạo một bản đồ hướng dẫn những trụ cầu, hồ và sông phổ biến để đánh bắt hải sản trong King County. Bản hướng dẫn này để nghị những loại hải sản lành mạnh có thể ăn được ở những địa điểm này và những ai săn nào nên tránh vì có chất độc như thủy ngân (mercury) và PCB". Sinang Lee, phụ trách giáo dục sức khỏe thuộc Public Health Seattle-King County.

Xin liên lạc sinang.lee@king-county.gov để nhận được một bản hướng dẫn này bằng tiếng Việt hoặc Anh ngữ.

## KÍNH MỪNG ĐẠI LỄ VU LAN 2559

Thứ Bảy, August 22, 2015 (9 am - 7 pm)  
Chủ Nhật, August 23, 2015 (10 am - 7 pm)

**CHÙA PHƯỚC HUỆ**  
2625 72nd Street East \* Tacoma, WA 98404  
(253) 536-4996 / (253) 224-2338



# Action Tool:

## Fishing Maps (in 9 languages)



# Action Tool: Digital Story



<https://www.youtube.com/watch?v=NDmkoBJpKYU>



# Meeting 4: What are your final thoughts about WDFW?

- *Fishing rules booklet in English only, need to be in Vietnamese.*
- *The fines: should be a warning first time*
- “Train the trainer” or community health worker (*promotore*) model



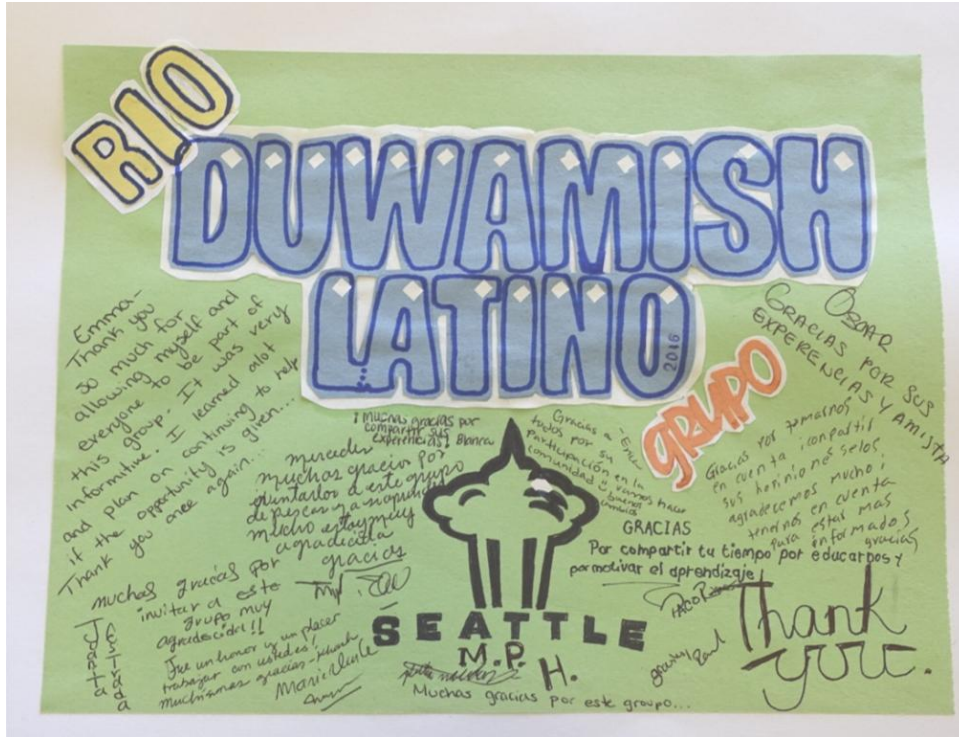
# Final thoughts from VN AG

- *I can understand that these meetings are meant for us to create our community voice.*
- *If they are investing in the cleanup of the environment, they should also invest in the health of the community as well.*



# Rio Duwamish Latin@ Grupo (“DROF2”)

## Fall, 2015-Spring, 2016

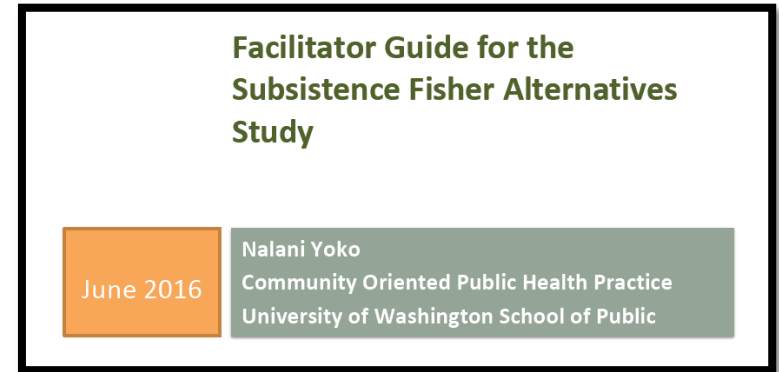


Khanh Ho, Paulina Lopez, Antoinette Angulo



# Latin@ Advisory Group

- Followed VN PLA model
- Very similar findings in terms of reasons for fishing and challenges
  - “catching memories”
  - “Fear of not knowing the regulations, the tickets and the police”



# What was different about the Latin@ Advisory Group?

- Younger
  - More social media savvy
  - Elevated concern about pregnant women and children
- Outreach ideas – radio, WIC
- Immigration status – more concern about SSNs and deportation when discussing WDFW
- Seafood as a food choice
  - Eat mostly fish (VN eat all seafood types- squid, crab, shellfish, etc)
  - *When food is scarce, Mexicans eat beans and tortillas, not fish....*

# Kiddos



Free provision of food and childcare





# Educational Outreach

- *“When we finish the group, we can continue educating other people in the community. Where we can fish and which seafood we can eat. It is important to take care of our children’s and grandchildren’s health”*
- Methods
  - *Promotores*
  - Radio
  - Pamphlets
  - Events



# Alternatives to fishing River

- Community fishing “conventions”: potluck, education, and skill share
- Education in place of tickets: classes on regulations for first time offenders
- Other fishing sites that are safer – knowing where else to go.



# Latin@ and Vietnamese working together to bigger change -





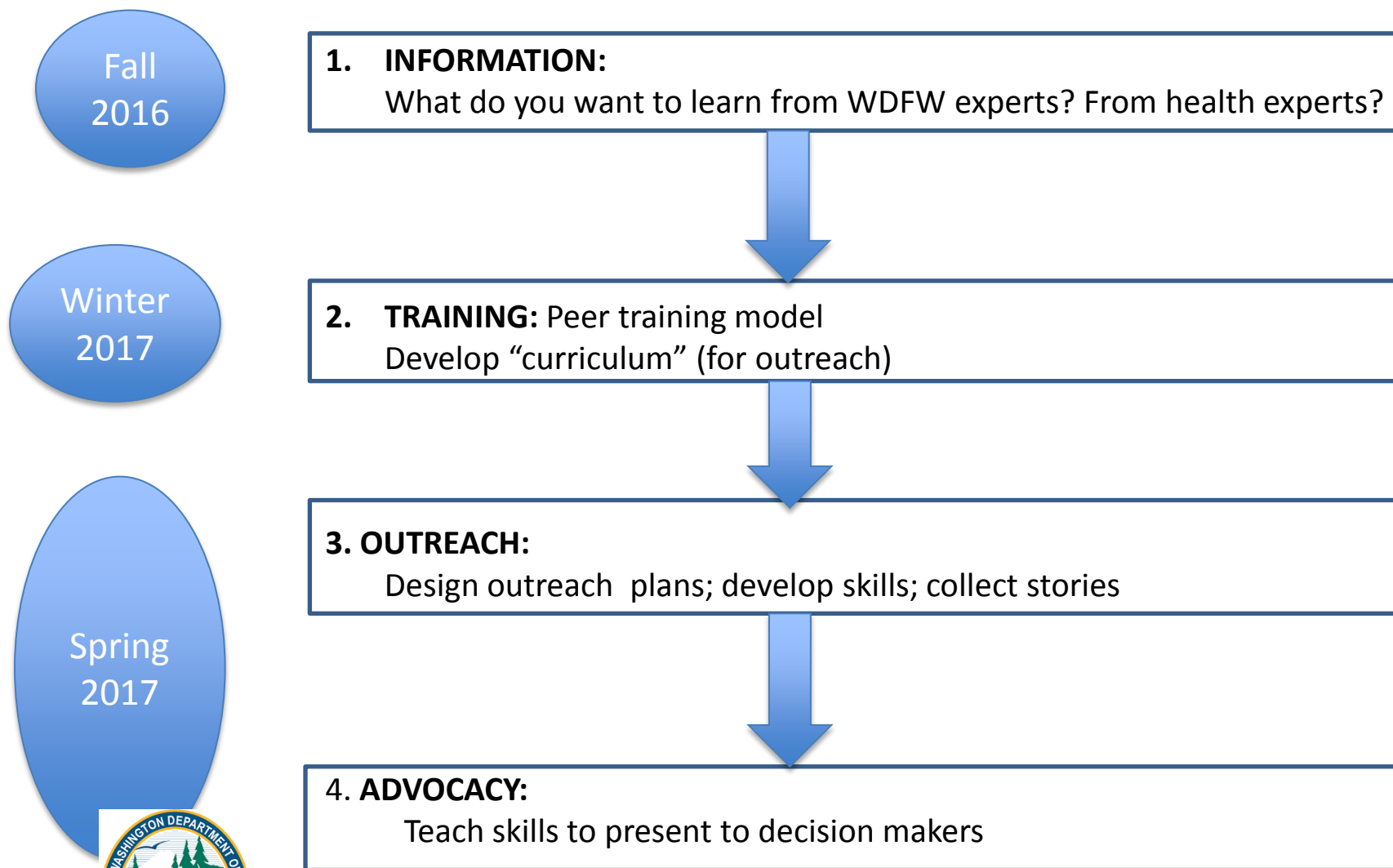
# Fisher Community Health Advocates - “*promotores*” - DROF 3 (Fall, 2016-Spring, 2017)



WDFW: New partnership – crossing silos



## “DROF 3”: Immigrant Fisher Community Health Advocates (*Promotores*)



# Magnifying Fisher Voice

- Advocacy built into JHA proposal and contract
- Meeting with and garnering support from policy organizations
  - Commission on Asian Pacific American Affairs (CAPAA)
  - Asian Pacific Directors Coalition (APDC)
  - Commission on Hispanic Affairs



WASHINGTON STATE COMMISSION ON  
**ASIAN PACIFIC  
AMERICAN AFFAIRS**

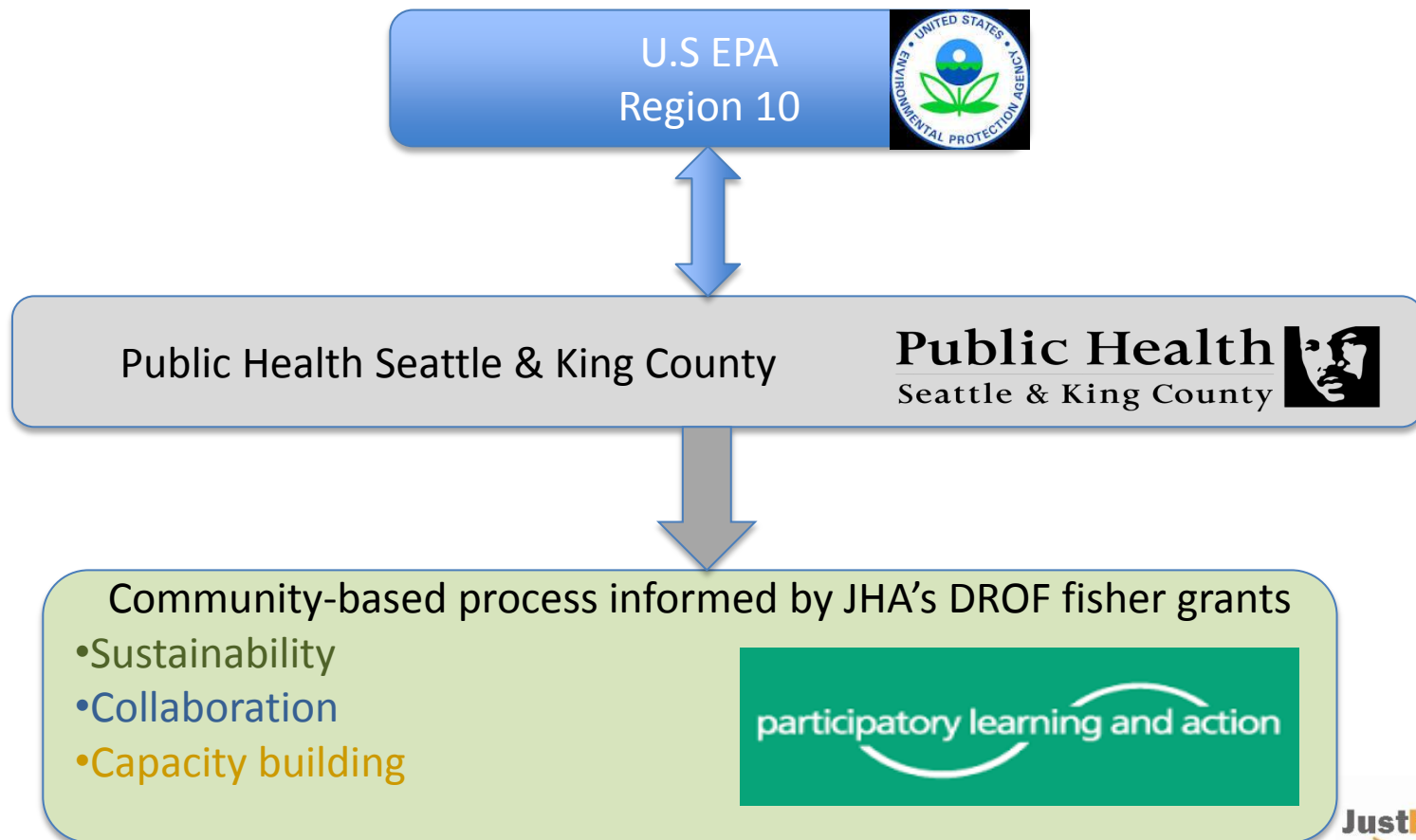
Public Health   
Seattle & King County

JustHealthAction 



# Duwamish Superfund Site – What next?

PHSKC Proposing to Develop Community-Based Fisher Institutional Control Program (2017)



# Thank You    Cảm Ơn Muchas Gracias

## Contact:

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- **Antoinette Angulo – Latin@ facilitator**
- **Paulina Lopez- Latin@ facilitator**
- Agency for Toxic Substances and Disease Registry (Rhonda Kaetzel, PhD; Arthur Wendell, MD, MPH)
- Environmental Coalition of South Seattle
- International Community Health Services (Abbie Zahler, Paul Le (2015), Jian Chu (2015))
- Public Health Seattle King County (Sinang Lee, MPH)
- Sea Mar Community Health Centers (Erica Chavez Santos; Blanca Mejia)
- University of Washington (Bill Daniell, MD, MPH; Emi Yoko, MPH)
- Washington State Department of Fish & Wildlife
- Washington State Department of Health



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# DROF 2 Note Takers



Blanca Mejia and Erica Chavez-Santos;  
Sea Mar Community Health Centers, HealthCorps

# JHA: working towards health equity

