



# Pollution Identification and Correction in the North Sound: Successes and Challenges



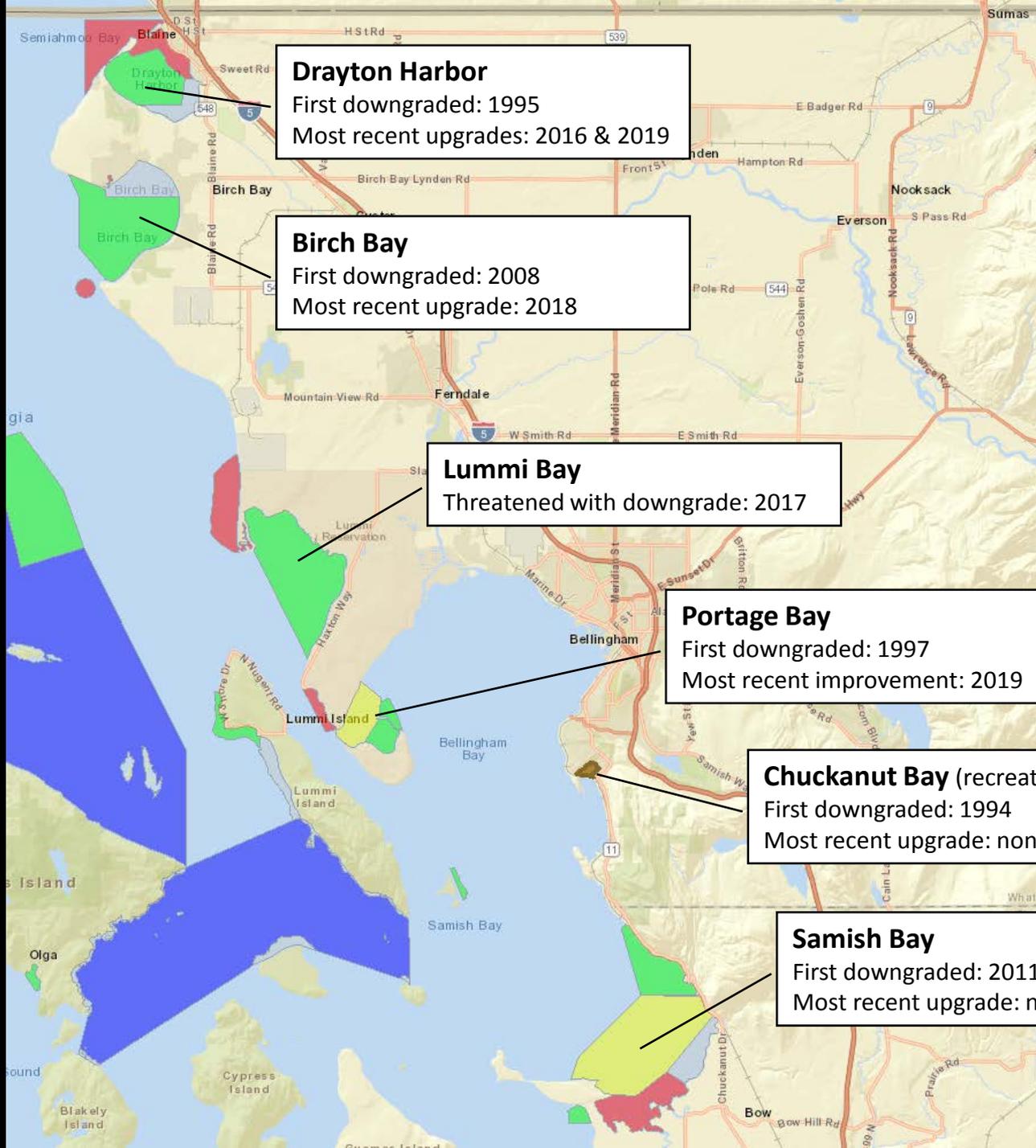
Erika Douglas, Whatcom County Public Works  
Karen DuBose, Skagit County Public Works



July 22, 2020

- Both Upland and Aquatic Farming Important in Whatcom and Skagit Counties
- Fecal Bacteria Closes Aquatic Farming
- Takes Years to Reopen Closed Shellfish Beds

# Whatcom and Skagit shellfish growing areas



### Legend

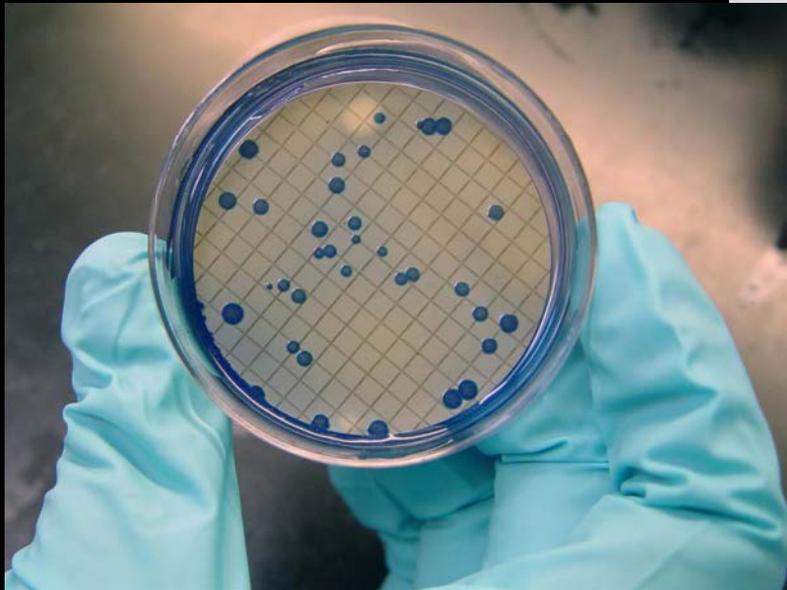
**Growing Areas**

- Approved
- Conditional
- Prohibited
- Restricted
- Unclassified

**Closed Parcels**

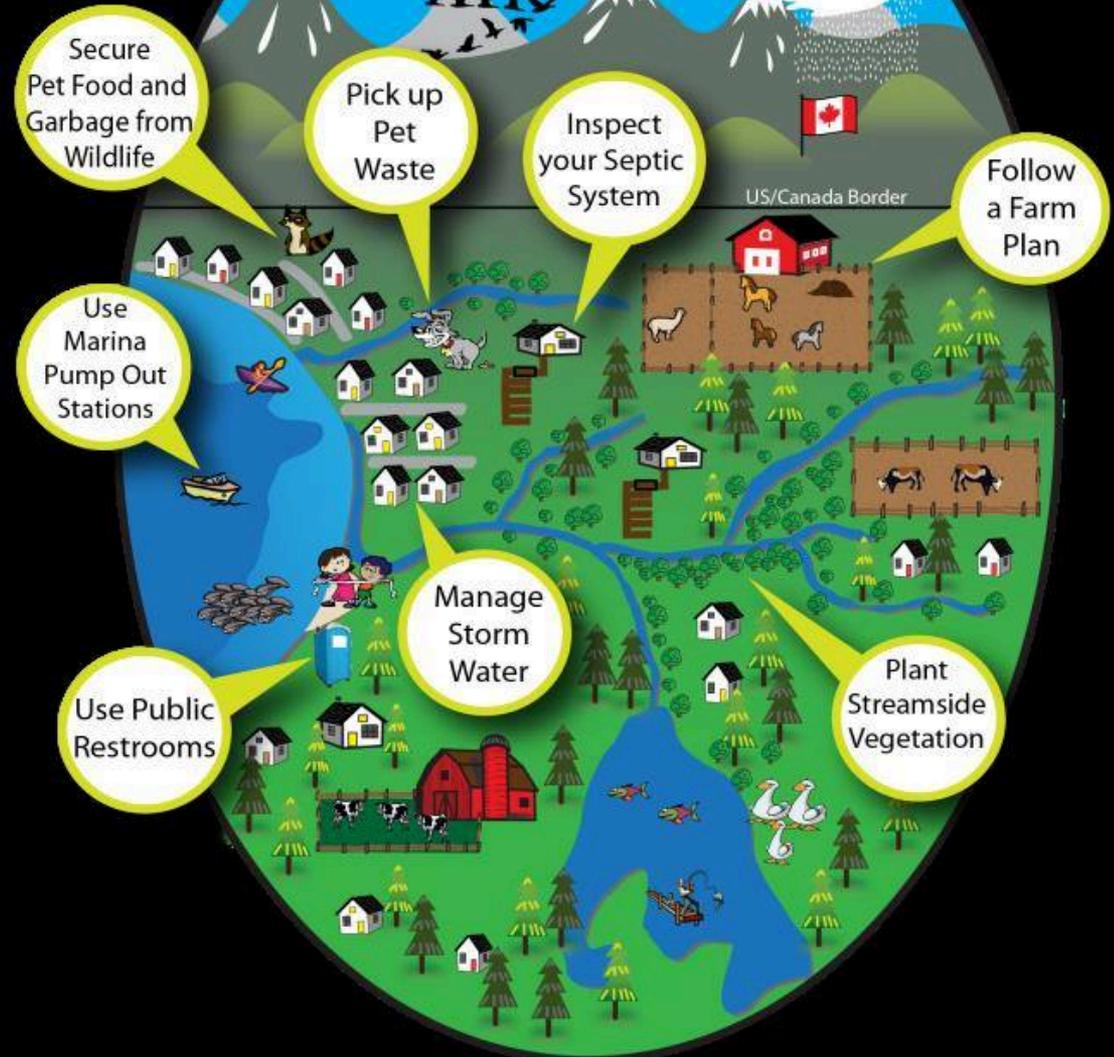
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# Fecal bacteria are an indicator of human pathogens



Many sources of fecal bacteria pollution ...

## Community Solutions for Clean Water



# Coordination to address many sources



## **Public Works**

Water monitoring, data management, education, outreach, Pollution Identification and Correction (PIC) program, financial incentives

## **Conservation District**

Farm planning assistance, financial assistance, education, outreach, data management, mapping, volunteer coordination

## **County Health Department**

Septic Systems

## **County Planning Department**

Critical Areas Ordinance compliance

## **Washington State Department of Agriculture**

Dairies, Dairy Nutrient Management Act compliance, data collection, mapping

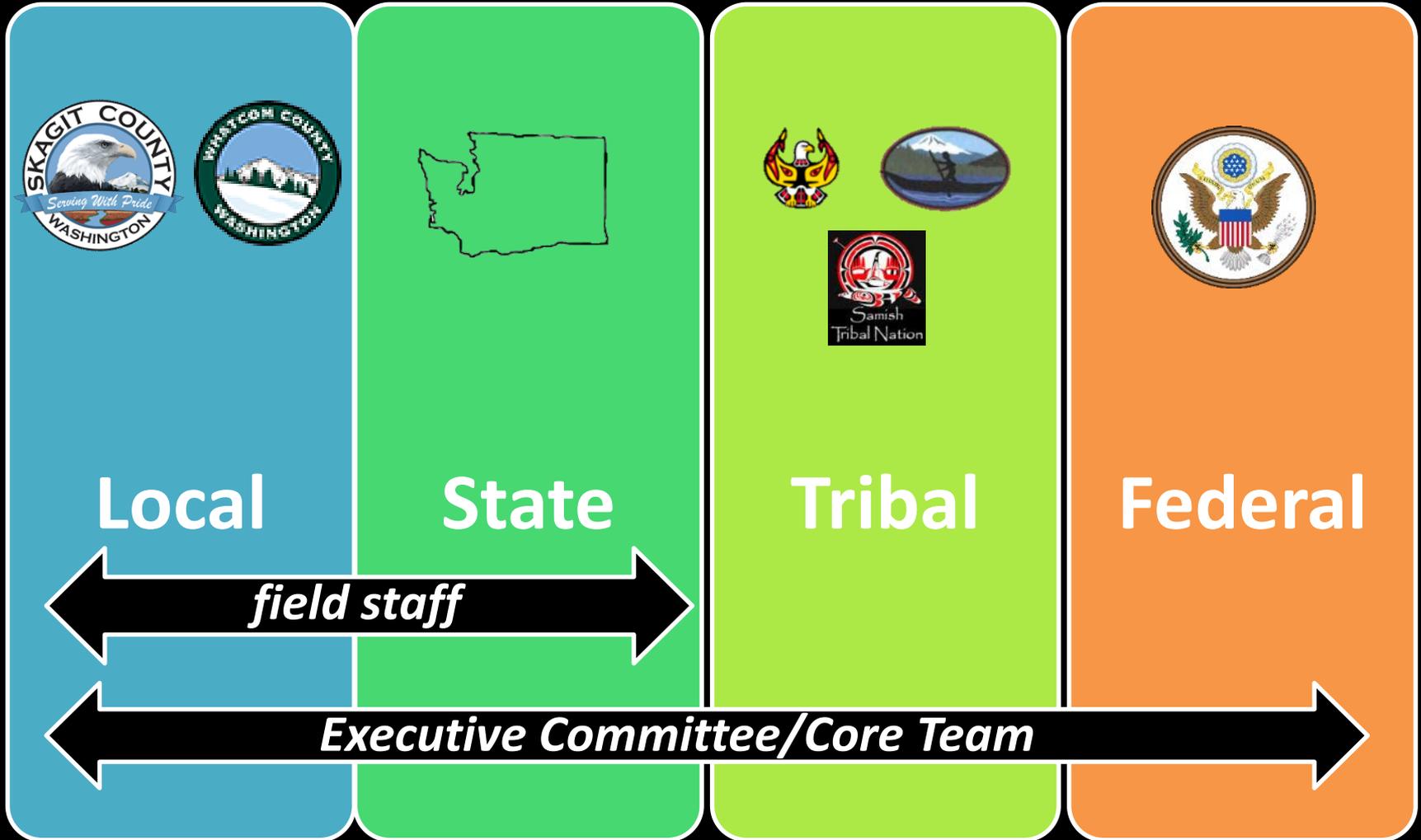
## **Washington State Department of Ecology**

Non-dairy agriculture, Water Pollution Control Act compliance, data collection

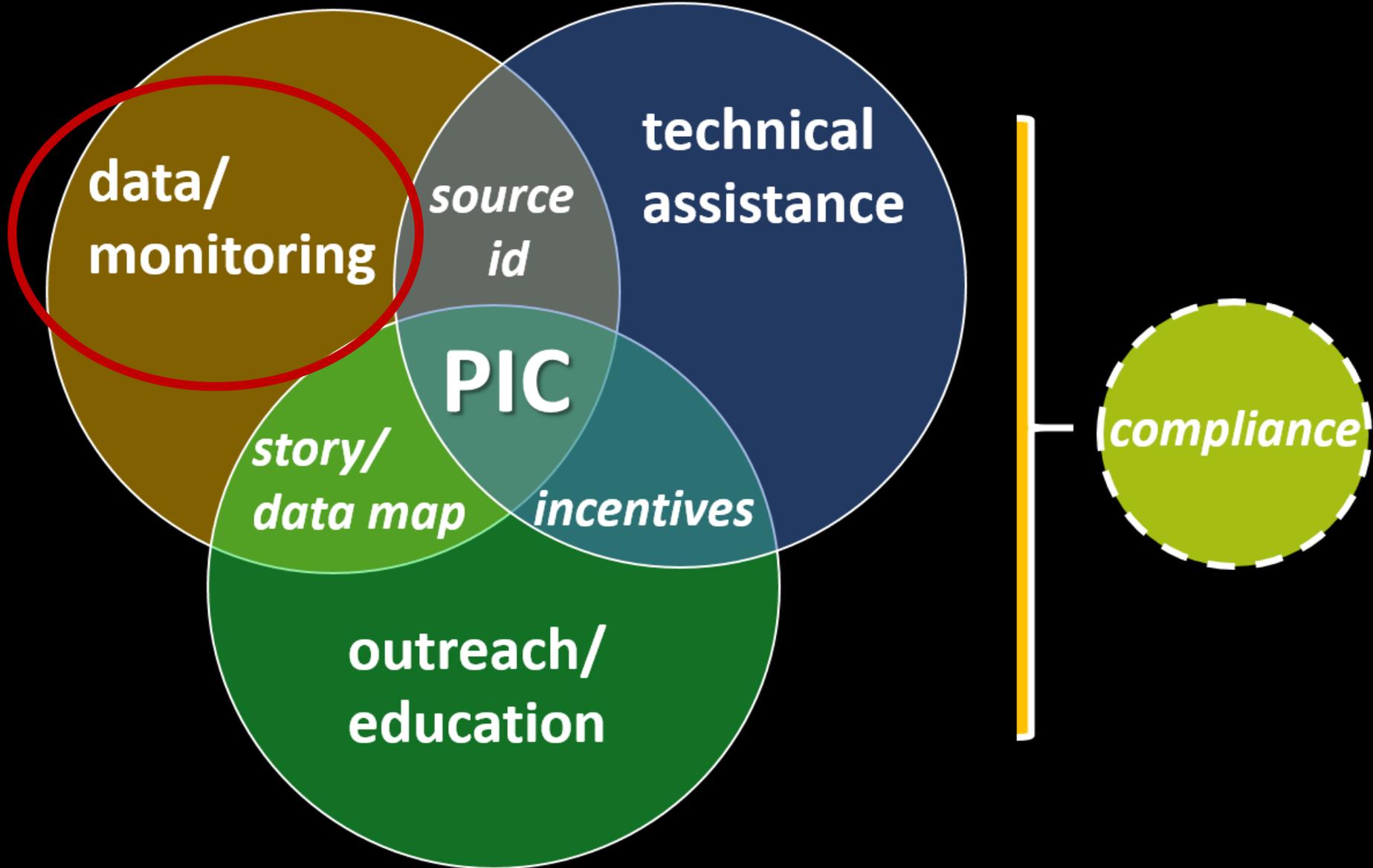
## **Washington State Department of Health**

Marine water quality and shellfish, National Shellfish Sanitation Program (NSSP) compliance

# Program Structure

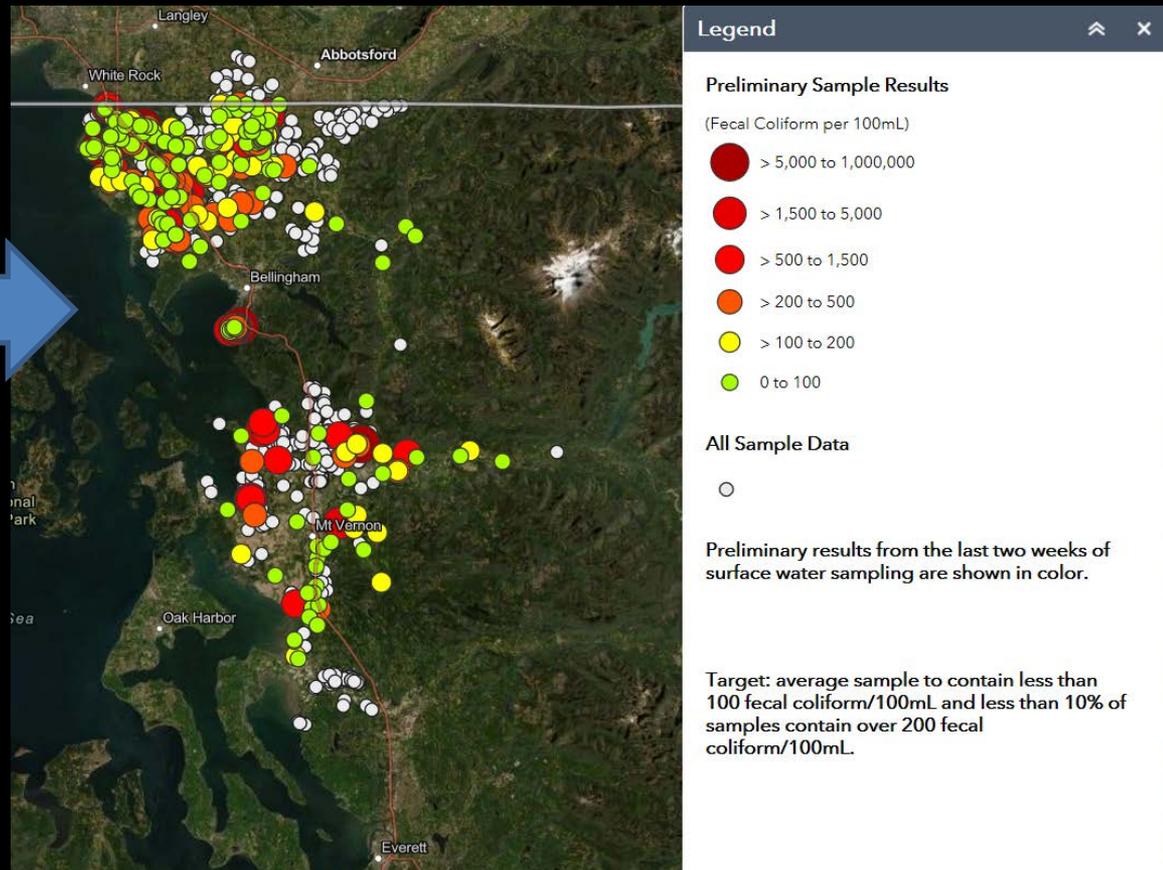


# PIC Components

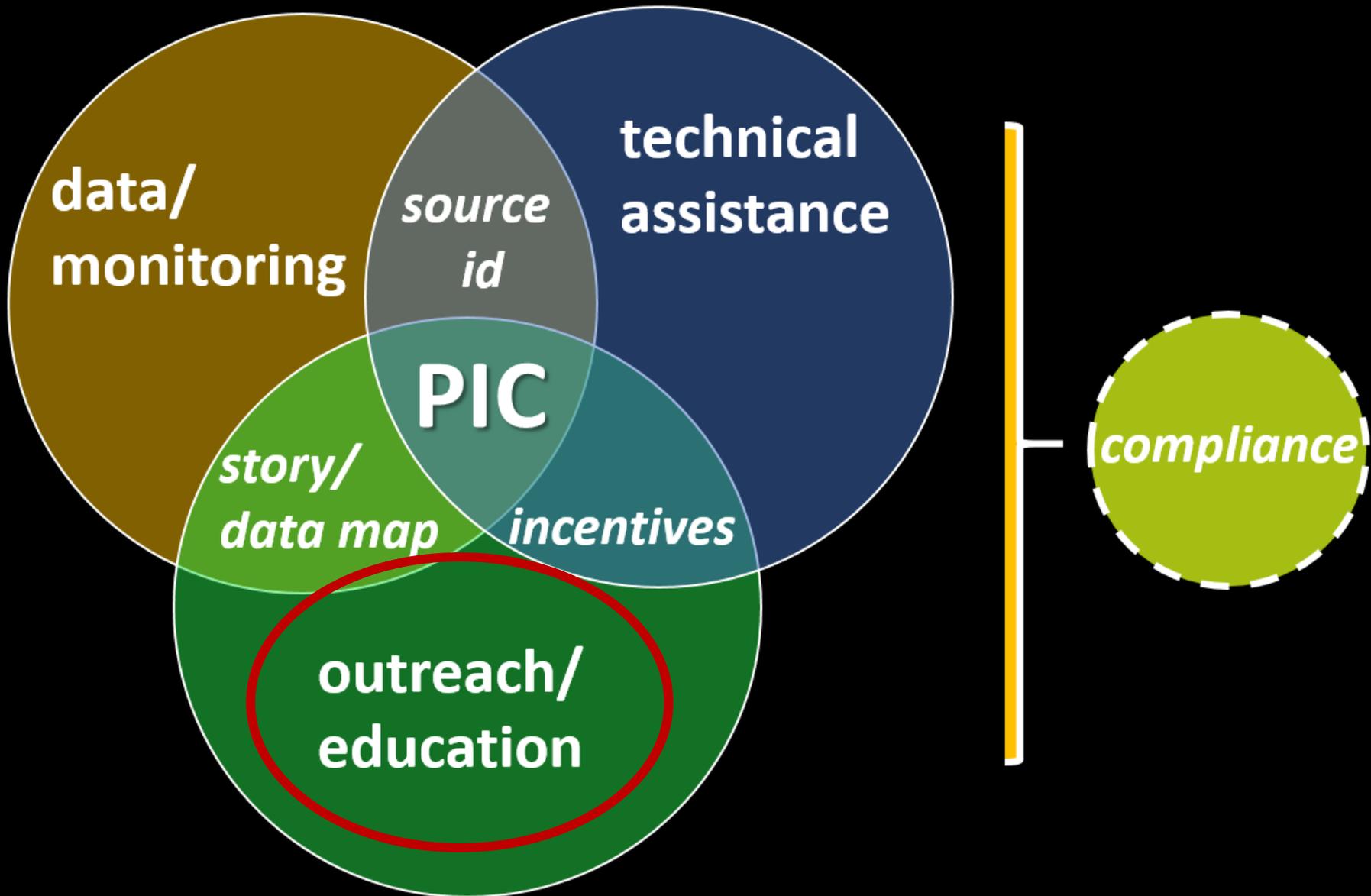




# Data Driven



# PIC Components



# diverse outreach messaging

HEADING OUT ON AN ADVENTURE? PACK EXTRA POOP BAGS!  
Scoop it, Bag it, Trash it.



PLEDGE TO SCOOP THE POOP,  
GET A FREE TAGALONG CLIP!

The secret's out. Dog poop can contain disease-causing germs and parasites. Keep your family, community, and our waterways healthy by pledging to scoop it, bag it, and trash it. As a token of our appreciation for making an important commitment to your community, we'll send you a free Tagalong clip for your leash, stroller, or backpack. The Tagalong is a nifty tool that helps you transport bags of dog poop to the trash hands-free!

VISIT OUR WEBSITE TO TAKE THE PLEDGE:  
[WHATCOMCOUNTY.US/SCOOPPOOP](http://WHATCOMCOUNTY.US/SCOOPPOOP)



## EVALUATE

YOUR SEPTIC SYSTEM BEFORE IT'S TOO LATE

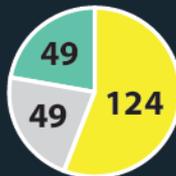
[whatcomcounty.us/septic](http://whatcomcounty.us/septic)

Septic evaluations are different than septic tank pumping.

Your septic system must be **evaluated every 1 or 3 years**, depending on the type of system you own. An evaluation determines if your septic system is working correctly and can identify any maintenance it needs. Just like your car, your septic system needs to be maintained to continue to function properly. Evaluations can catch small problems before they become big issues that can cost you tens of thousands of dollars.

Pumping is a type of septic maintenance. Septic systems need to be **pumped** when the solids in the tank make up 1/3 of the total tank volume.

In the Chuckanut Watershed Area:



124 of your neighbor's septic evaluations are out of date.

49 of your neighbor's septic evaluations are up to date.

49 of your neighbors have never had their septic system evaluated.

Is your septic system evaluation up to date?



REBATES FOR EVALUATION AND MAINTENANCE UP TO \$200 AVAILABLE FOR QUALIFIED SEPTIC OWNERS

[whatcomcounty.us/septic](http://whatcomcounty.us/septic)

Winter 2018

## Whatcom County Watersheds PIC Program Newsletter

Connecting Landowners with Useful Resources  
Community Solutions for Clean Water

**Hilary Graham and Sean D'Agnolo**  
Monkey Puzzle Farm

"However our homestead and farm business moves forward, we're really glad to have access to the WCD, they are an incredible resource for new farmers and an asset to any farm business", Hilary said of their experience working with the Whatcom Conservation District.

**Betty and Charles Eichenbergers**

Borrowing the manure spreader from the Whatcom Conservation District..."worked very well. We had a huge pile of horse manure and we weren't sure what to do with it, until the new manure spreader. It gave us the first step in our pasture renovation process and helped us harrowed, and overseeded. We are keeping the horses off the new pasture for the winter, and we look forward to them having a new refreshed pasture next year."

Interested in learning more about the Whatcom Conservation District?  
(360) 526-2381  
[www.whatcomcd.org](http://www.whatcomcd.org)

# diverse outreach messaging



**Skagit County Clean Water**  
Published by Karen DuBose [?] · February 20 · 🌐

👍 Like Page ...

On #NationalLoveYourPetDay, make sure you're keeping your pet safe and healthy by reducing their exposure to worms and viruses. Because nobody likes going to the vet. (Or visiting their human doctor for a poop-related disease.) #PoopSmart

Learn WHY it's important at [poopsmart.org/pet](http://poopsmart.org/pet)

**92%** OF DOG OWNERS SAY  
**IT IS IMPORTANT OR VERY IMPORTANT TO BAG DOG POOP AND DISPOSE OF IT IN THE TRASH.**



**Skagit County Clean Water: The Straight Poop**  
True or false: Septic systems last forever. Household cat food can make your septic system work better. Septic Myths video #StraightPoopOnSeptic #SepticSmart

**Poop Smart** Toolkit How can we help you? ▾

## I need to poop while fishing, hunting, or hiking!

We get it. Most rural recreation areas don't have bathrooms. But there's a right way and a wrong way to poop in the woods... or near the river. Each person who does the right thing helps keep trails clean and the river open to fishing.

Share this page <

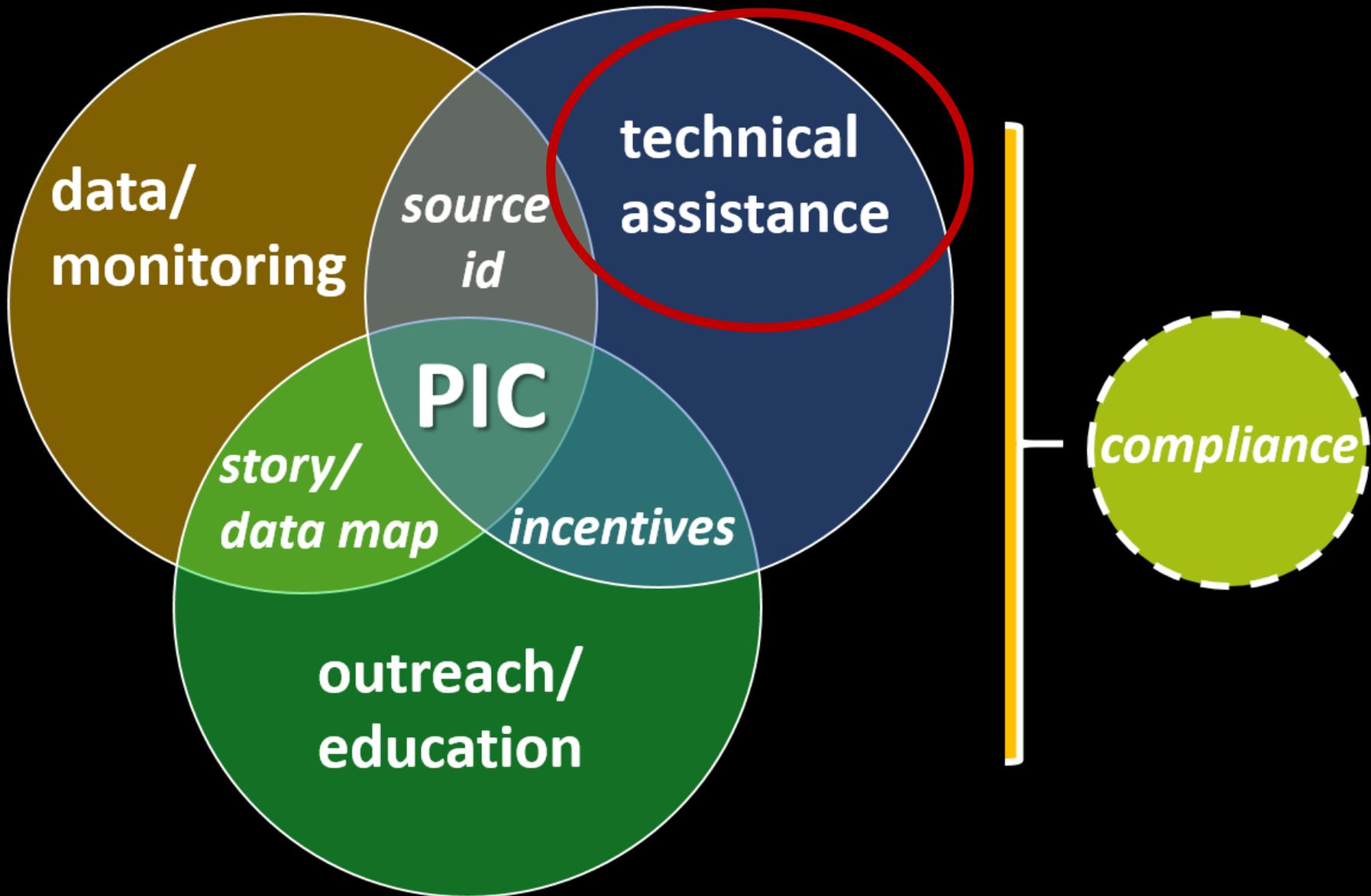
Who wants to lose a fishing opportunity? If bacteria levels get too high, the Department of Fish and Wildlife could shut down fishing zones in Skagit County.

## Don't drop your deuce.

If you care about the water and land that you enjoy for recreation, you need to properly dispose of your waste. Don't just drop a deuce anywhere. If you're planning your gear and route, you've got to plan for this, too. How much difference can one person make? It's not just a drop in the ocean. When you do the right thing, you help keep the woods clean and fishing areas open.



# PIC Components



offer technical assistance



# offer technical assistance



Photo by Gabriella Mednick, Whatcom CO



# offer financial assistance

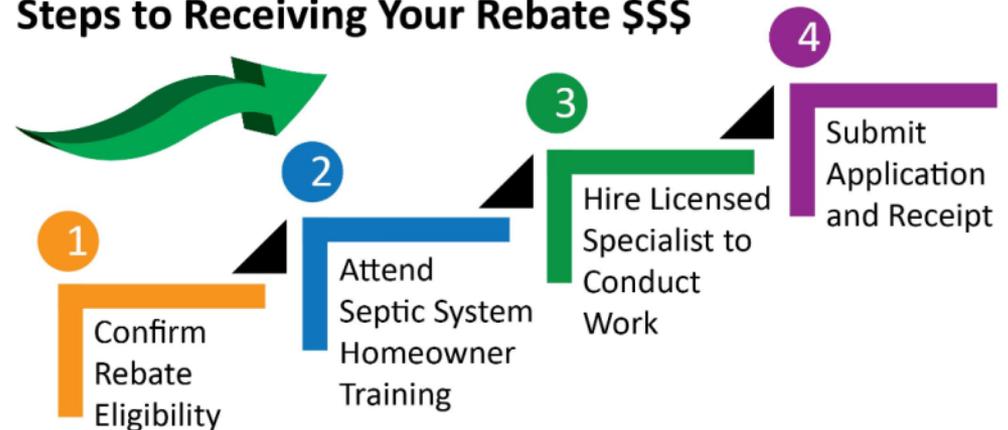


FOR MORE INFO VISIT:  
WHATCOMCD.ORG/INCENTIVES  
OR CALL (360)526-2381

SMALL FARM  
IMPROVEMENTS  
COST MONEY.  
WE CAN HELP.

REBATES, SMALL GRANTS, MANURE SPREADER LENDING, SOIL TESTING, TARPS...

## Steps to Receiving Your Rebate \$\$\$



# offer community incentives



**TAKE THE PLEDGE,  
GET A FREE TAGALONG!**

*Scoop it, Bag it, Trash it.*

CLICK HERE TO TAKE THE PLEDGE!

The advertisement features a central text area with a light blue background. To the left is a photo of a person's leg with a black bag and a yellow tag attached. To the right is a photo of a person's torso with a grey bag. Below the text is a small grey trash can icon and a cartoon black dog holding a green ball.





Normalize  
conservation  
behaviors

Personalize  
government

Goal:

Improve Water  
Quality

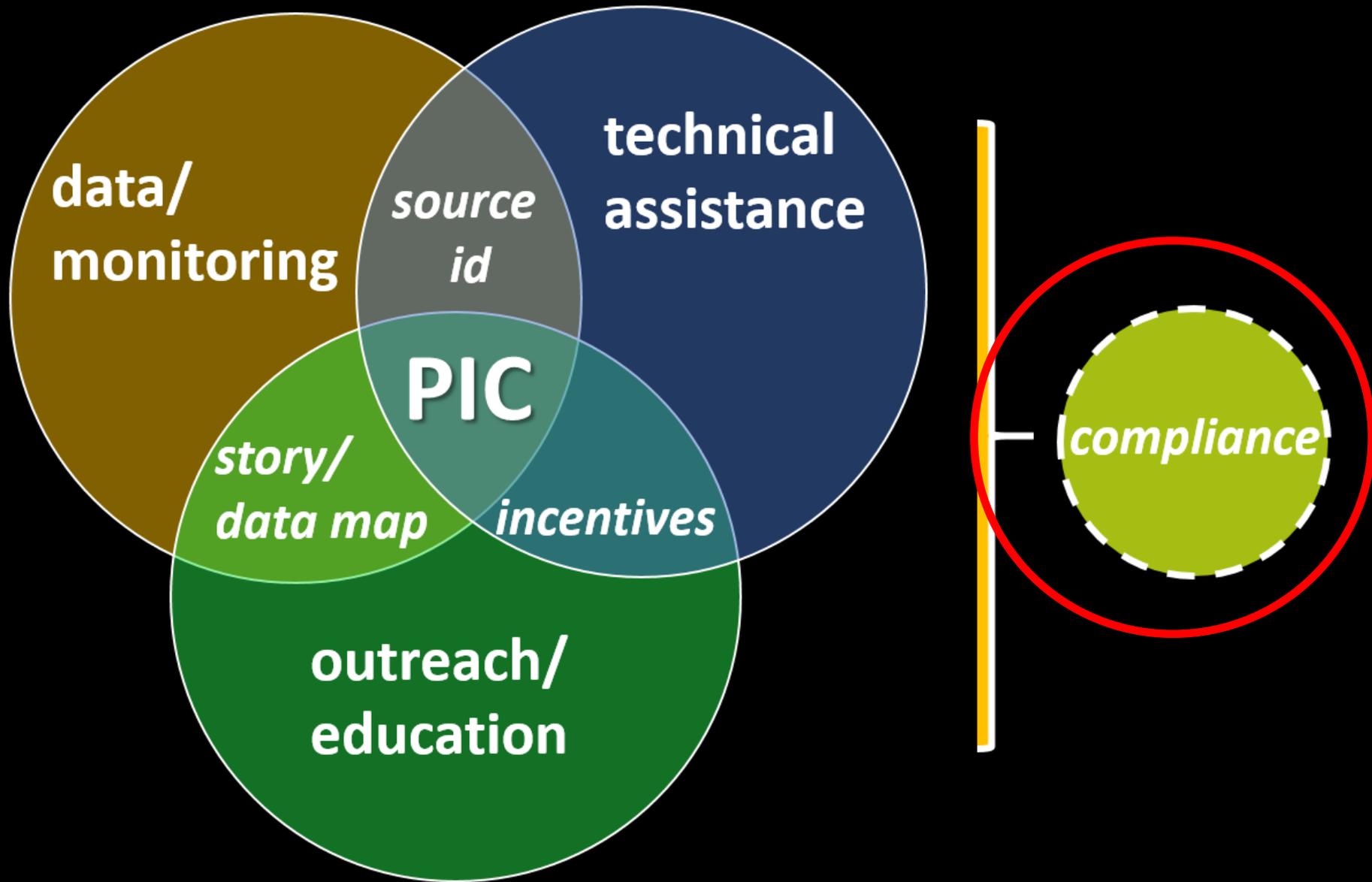
Use incentives  
specific to  
target  
behavior

Build trust  
through  
relationships

Use trusted  
sources of  
information

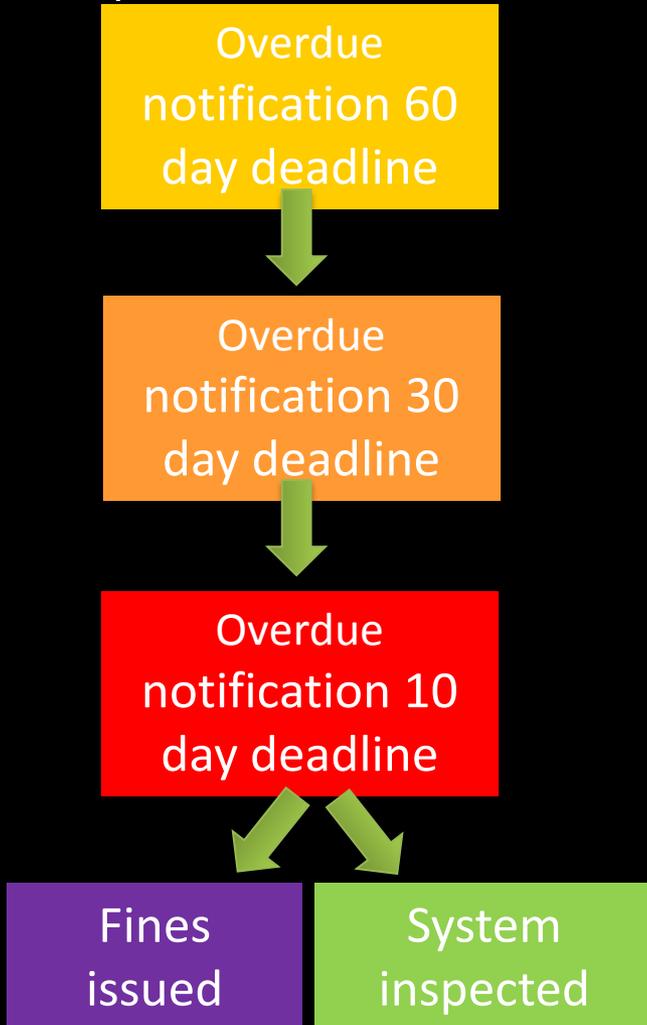
Build trust  
through  
transparency

# PIC Components

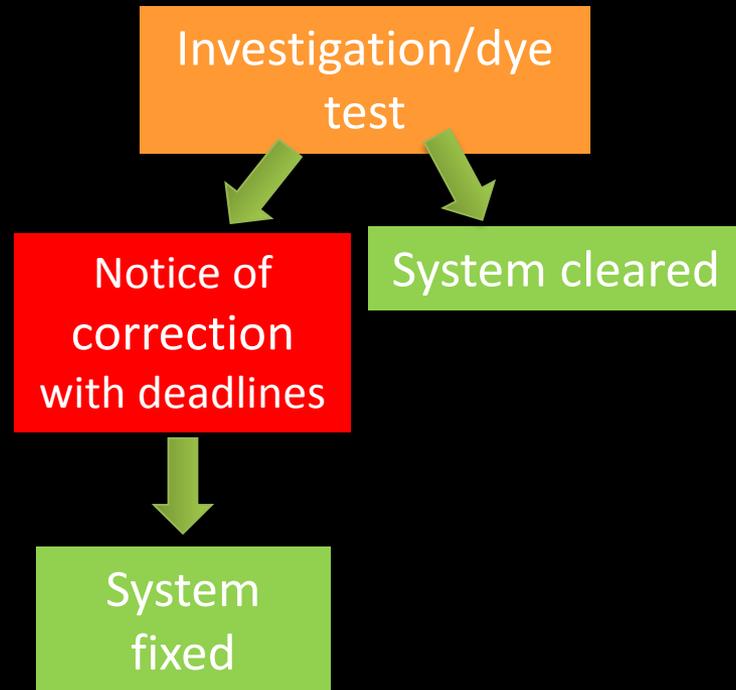


# Septic Systems

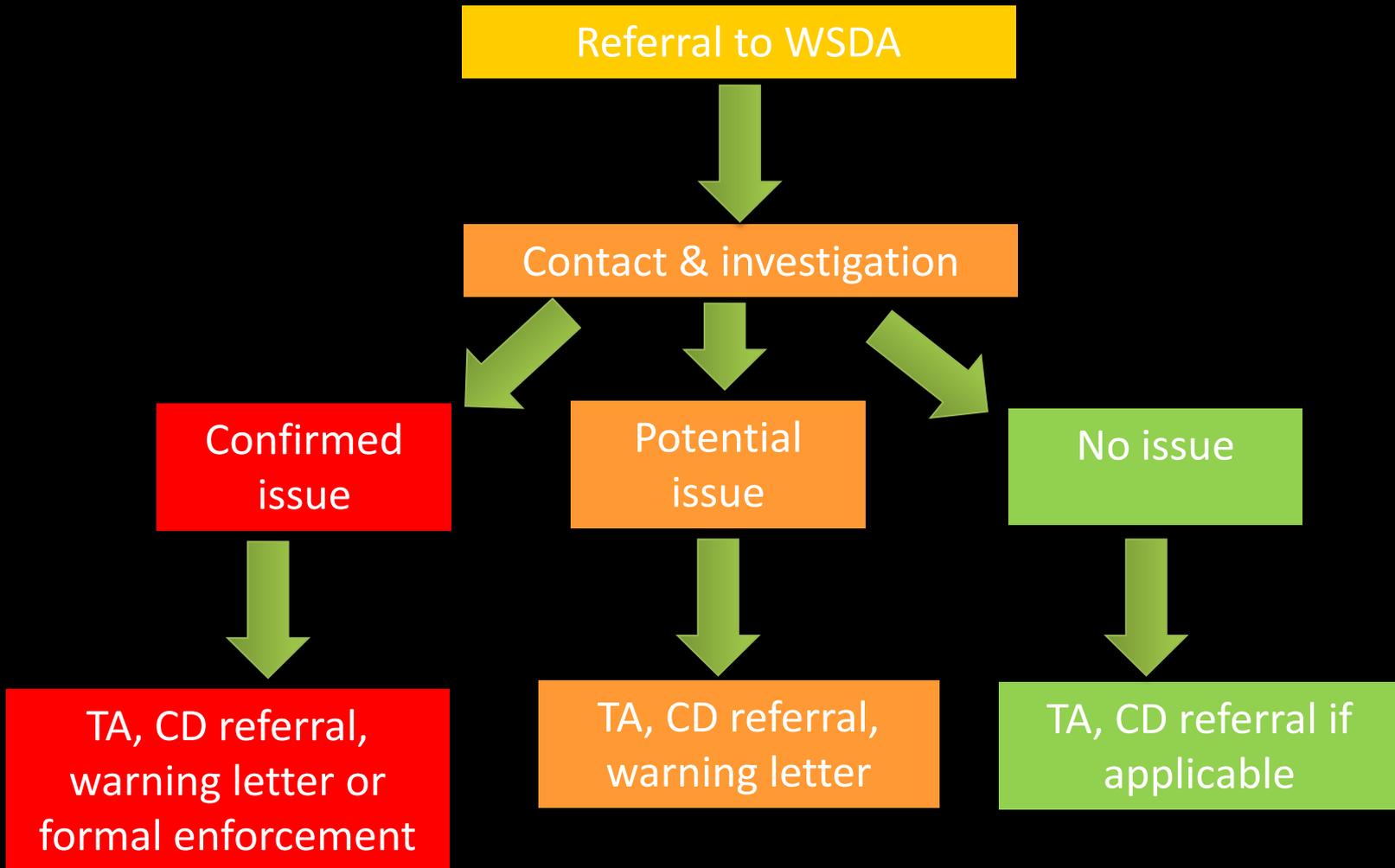
## Inspection enforcement



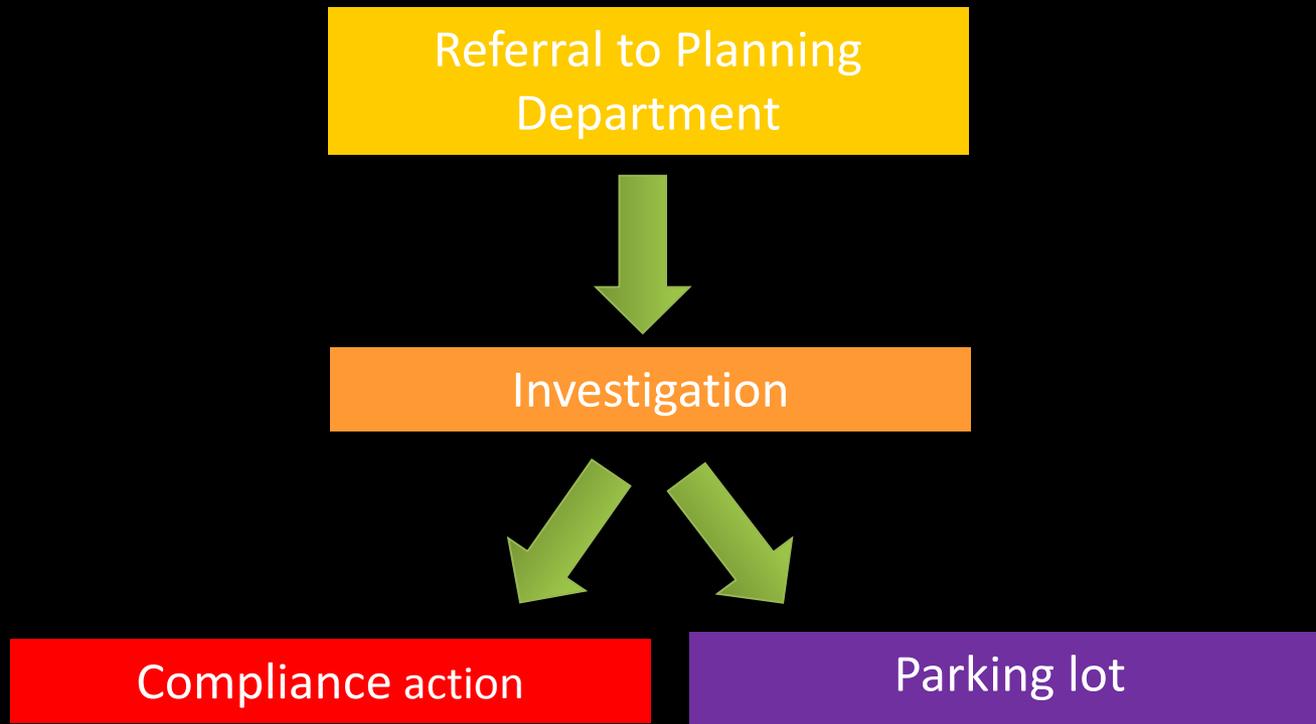
## Suspected



# Dairies



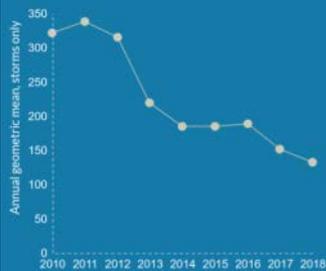
# Non-Dairy Agriculture: Critical Areas



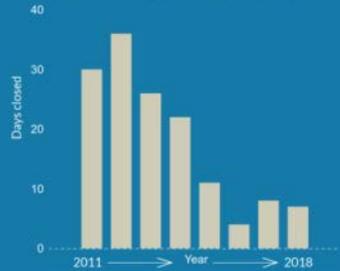
# progress made...

## Clean Samish Initiative Successes 2010-2018

Average bacteria levels have reduced significantly



Commercial shellfish beds are closed for fewer days in spring



**260+**

Best management practices implemented on farms



**330**

Septic systems identified as failed or seriously deficient



**46+**

Farm plans completed



**12+**

Pet waste stations maintained by Skagit County or community partners



### Progress Made!

November 2017 - Washington Department of Health updates the rules for closing the bay due to reduced pollution. This has resulted in fewer precautionary shellfish harvest closures.



1,700 Acres Upgraded So Far

...more to do

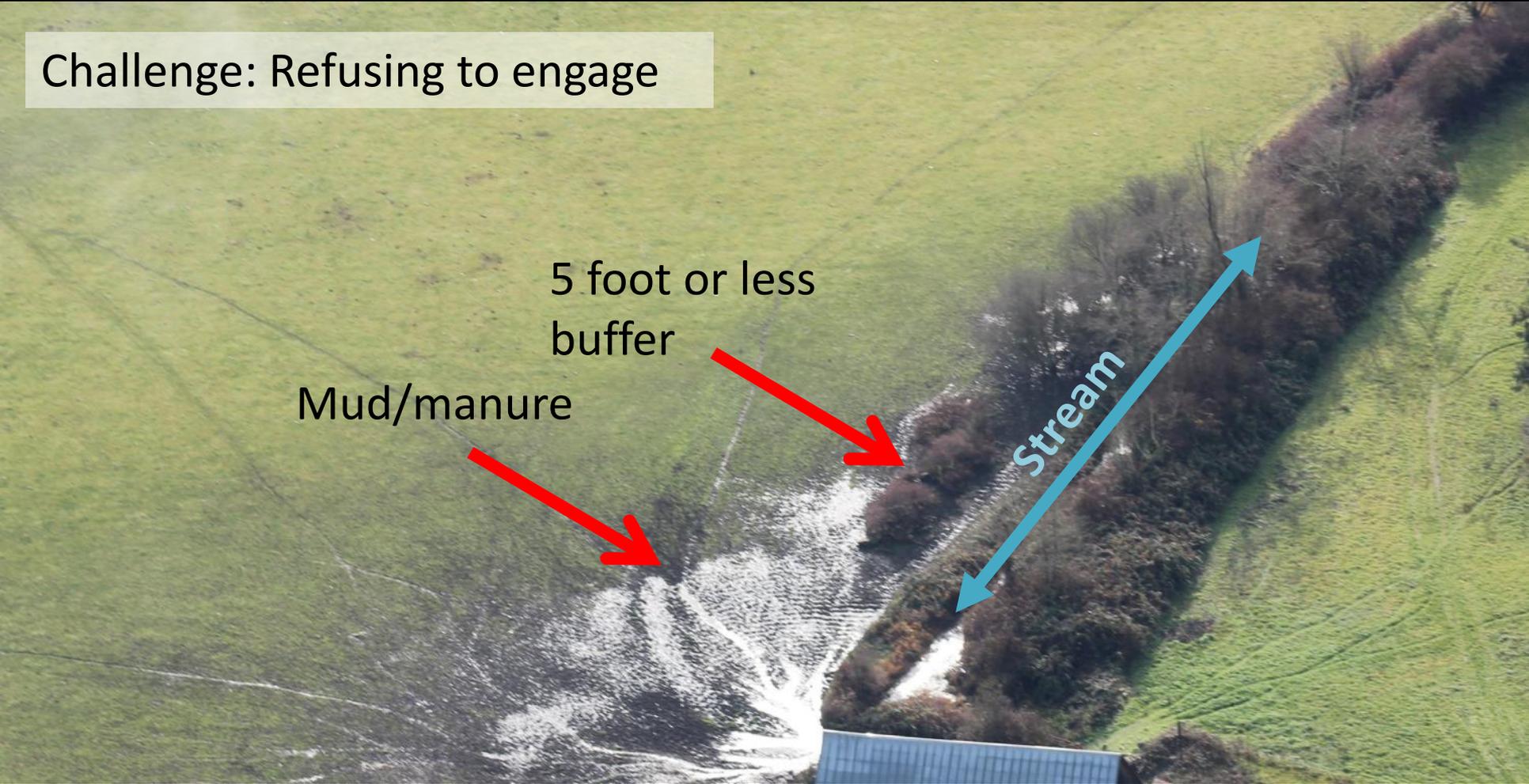
# Non-Dairy Agriculture: Water Quality

Challenge: Refusing to engage

Mud/manure

5 foot or less  
buffer

Stream



# Non-Dairy Agriculture: Water Quality



We need your help.

Troubleshooting  
Finding Common Ground  
Moving Forward