



# **PUBLIC HEALTH**

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**Washington State Department of Health**  
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**Office of Shellfish and Water Protection**

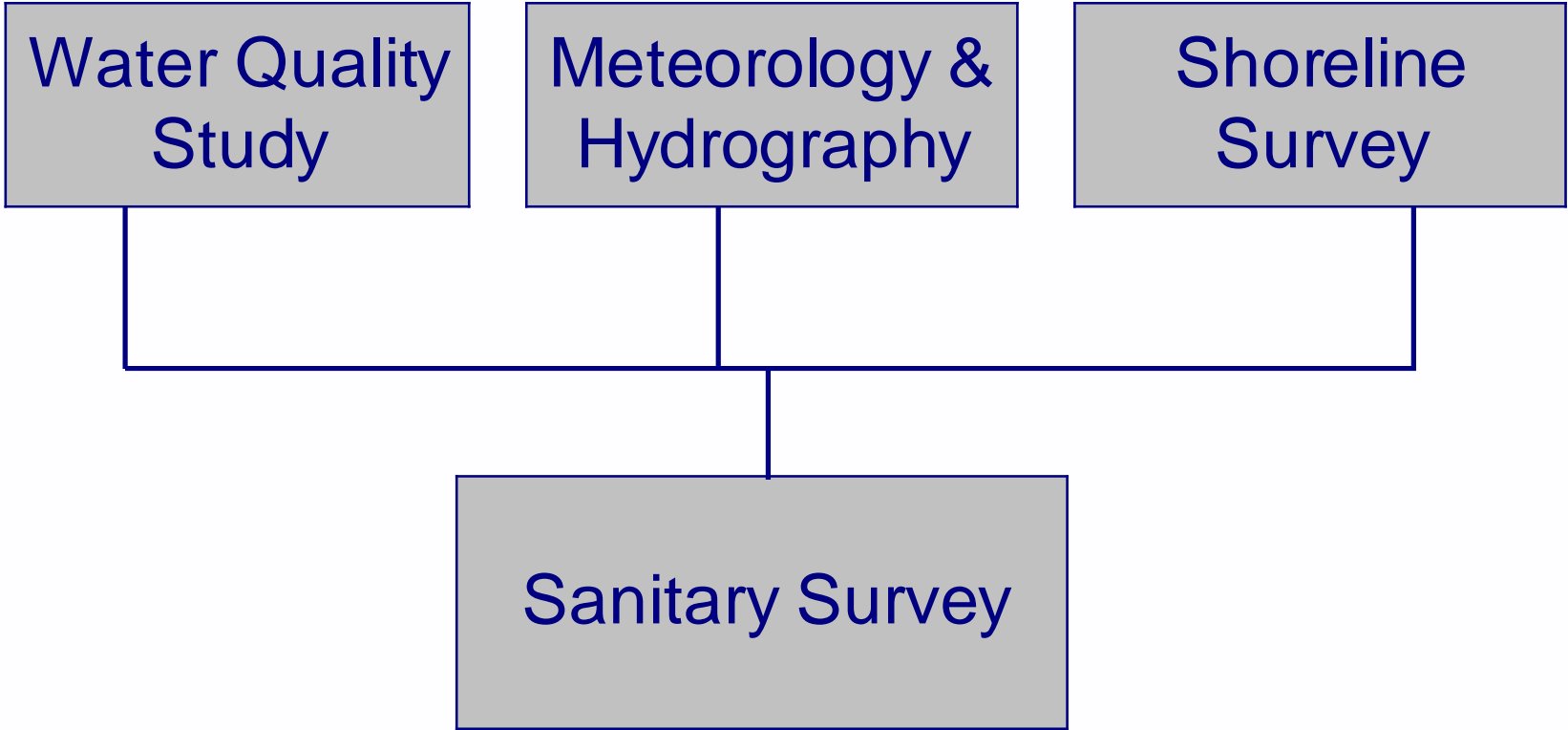
# **Current Status of the Nisqually Reach Commercial Shellfish Growing Area**

## Tonight's Information...

Summary of our activities and findings in the Nisqually Reach shellfish growing area.

- Marine water quality (status & trends).
- Shoreline survey findings.
- Current classification.

# Classification of Growing Areas



## Water Quality Study

Marine stations placed near potential upland pollution sources.

Sample each station 6 – 12 times per year.

A minimum of 30 samples per station used for calculation.

Fecal coliform (FC) standard is stringent.

- $\leq 14$  FC / 100 ml geometric mean value
- $\leq 43$  FC / 100 ml estimated 90th percentile







# Water Quality Study Findings



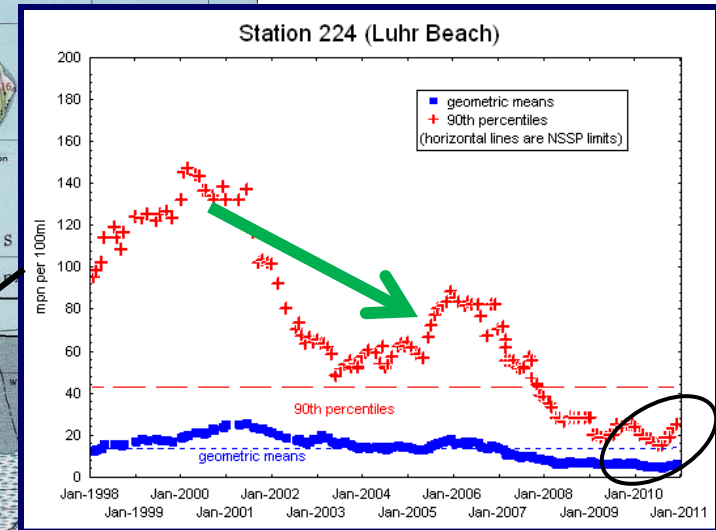
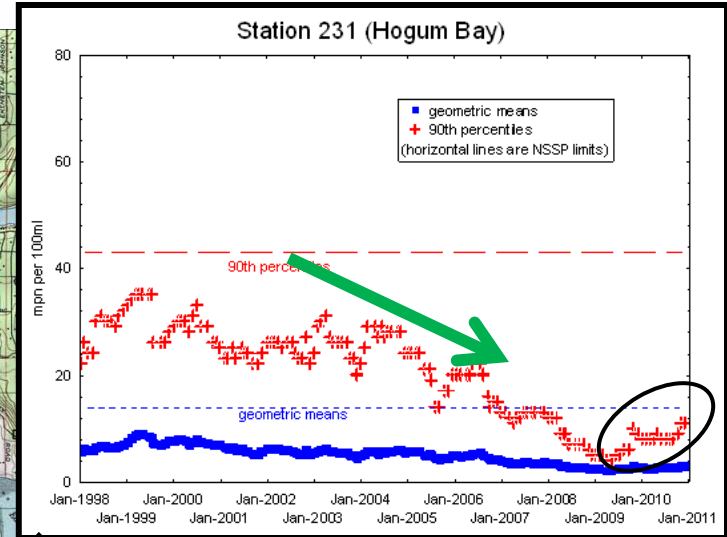
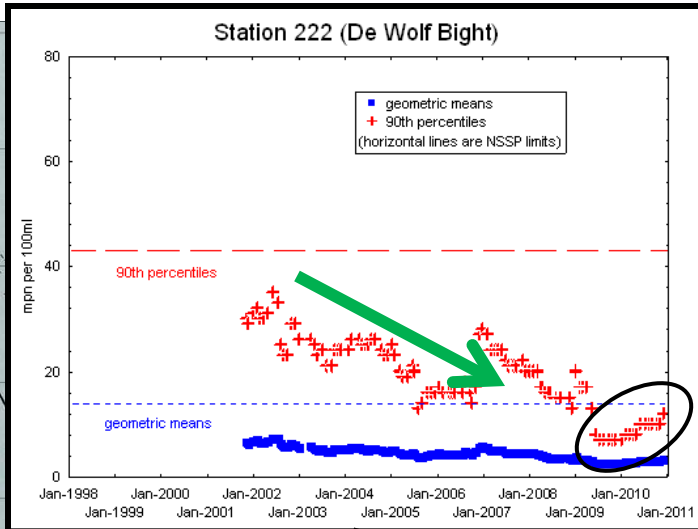
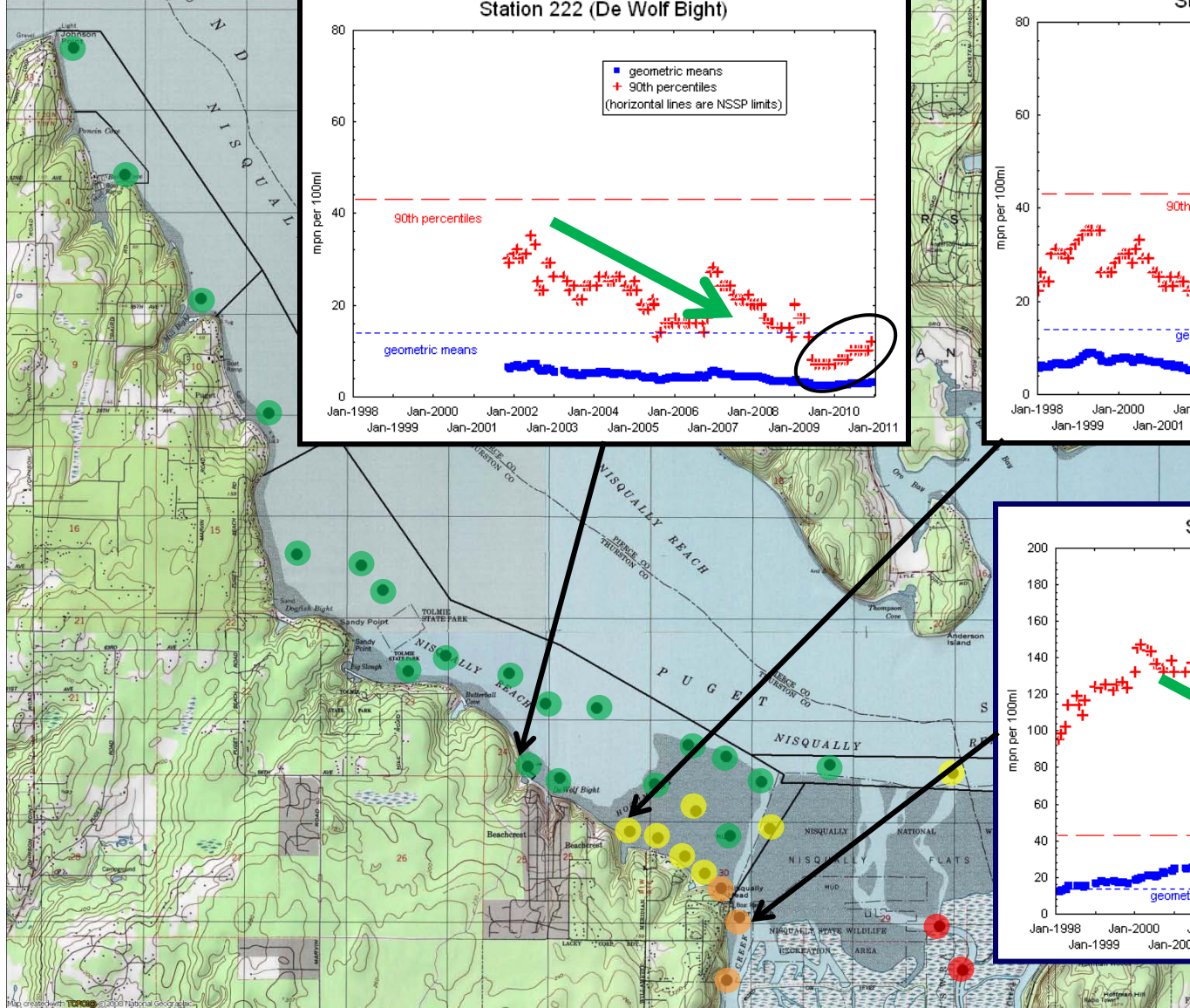
34 permanent marine water stations.

- Southeast portion sampled 12 times per year.
- Northwest portion sampled 6 times per year.

Symbol	Estimated 90 <sup>th</sup> Percentile
	1 – 10
	11 – 20
	21 – 30
	>43

Must be ≤43 to remain Approved

# Water Quality Study Findings



## Shoreline Survey

The identification and evaluation of all actual and potential impacts to shellfish growing areas.

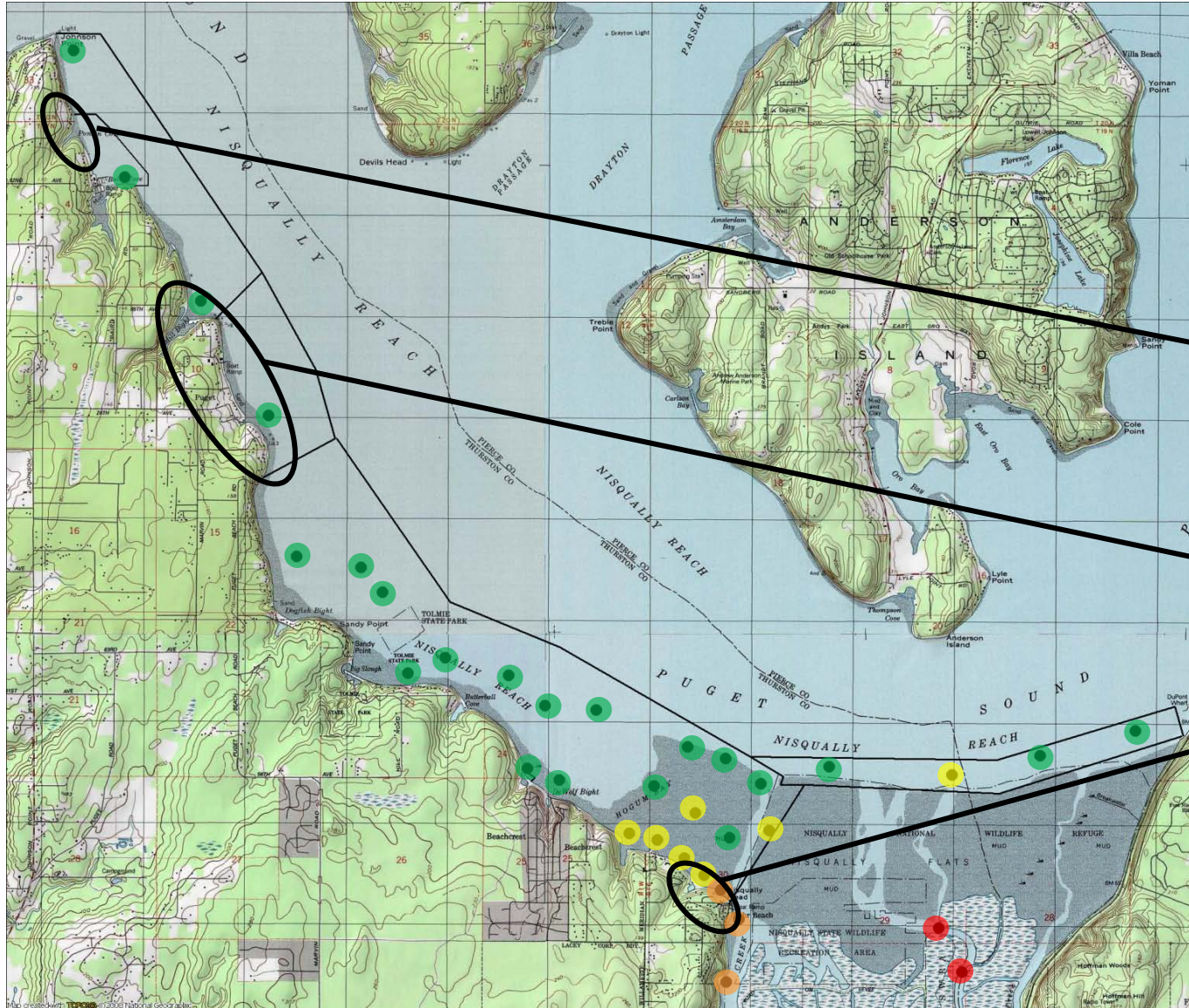


# 2005 Shoreline Survey Findings

## Evaluated:

- 14 marine shoreline miles
- 132 shoreline discharges
- 168 on-site sewage systems
- 8 small farms (62 in the area)

# Shoreline Survey Findings



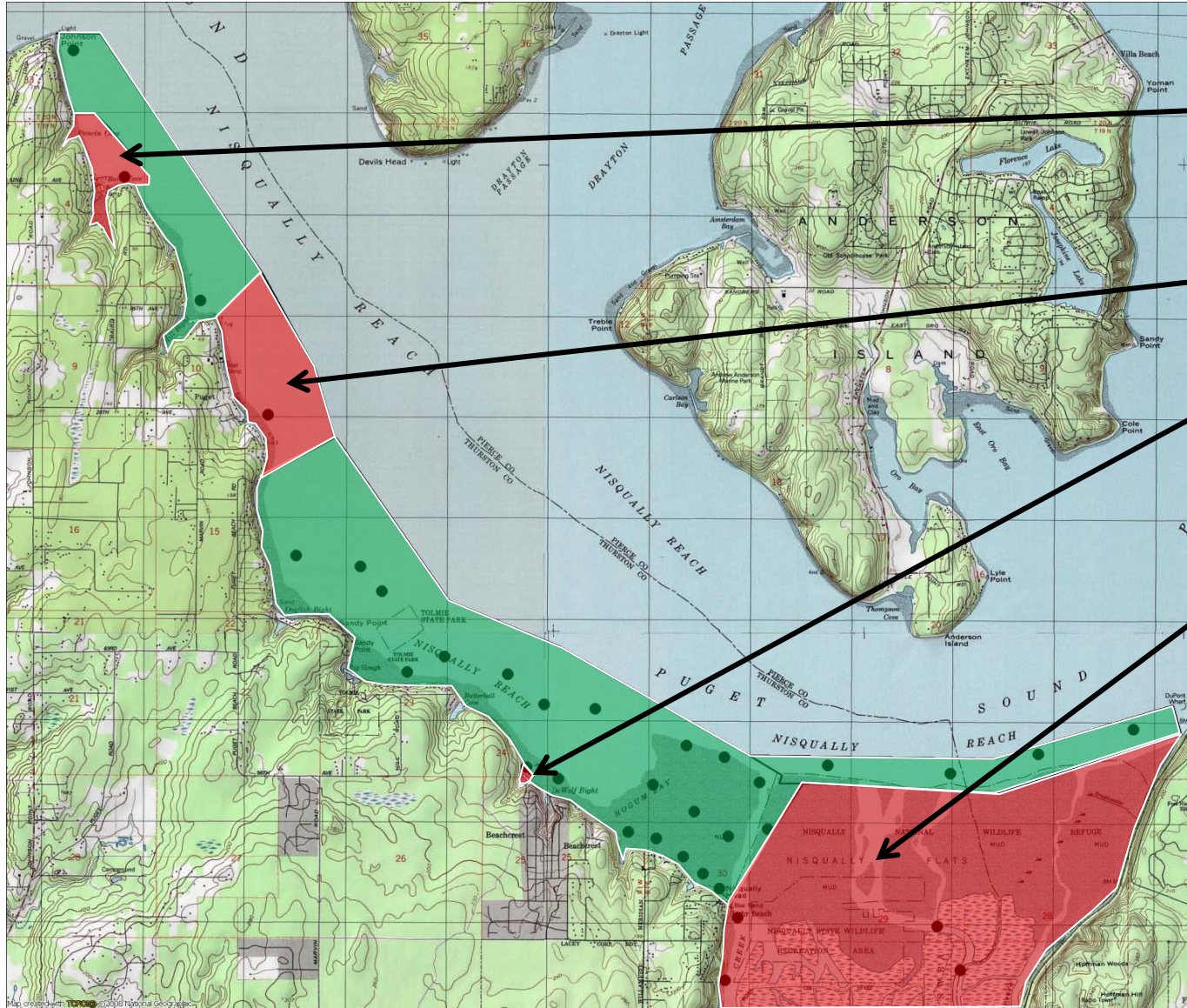
Over 20% of the on-site sewage systems along the shoreline were defined as potential sources of pollution.

High bacteria levels in a stream draining to the shoreline.

High bacteria levels in 23 shoreline discharges. County identified 7 failing on-site sewage systems.

High bacteria levels and 2 failing on-site sewage systems.

# Current Classification



Marina closure;  
expanded in 2005 due  
to high bacteria in  
shoreline drainages.

High bacteria in  
shoreline drainages.

Marina closure

Historically poor  
marine water quality,  
current stations do not  
meet our Approved  
area standards

## Take home message...

- Temperamental growing area, with large swings in marine water quality especially near the Delta.
- Pollution sources localized to upland area along growing area and rivers.
- Commercial shellfish classification is reflective of public health risk.

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