

# Abandon Aquaculture Remediation Along the West Coast of Vancouver Island



**COASTAL  
RESTORATION  
SOCIETY**

Funding Through: DFO's 2021-22 Sustainable Fisheries Solutions and Retrieval Support Contributions Program

# The Project

CRS Was 1 of 8 Recipients  
Awarded Contracts Under  
DFO's Pacific Region  
2021-22 Ghost Gear Fund.

CRS' GGF Project Looked  
to Support Pillars 1 & 2:

1- Retrieval

2- Responsible Disposal

# Abandoned Aquaculture Infrastructure



Ben Grayzel

# Initial Project Approach



## Identify the Challenges:

Remote Locations, Operational Health & Safety Concerns, and Extent of Debris

## Leverage the Opportunities:

Strategic Partnerships, Capacity Building, and Engagement-Focused Prioritization

# The Challenges

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## Environmental Considerations

Remote Locations

Unpredictable Weather

Environmental Sensitivities

Indigenous FSC Territories

= Additional Risks

## Technical Considerations

Unknown Debris & Hazardous Materials

OHS Considerations

Industrial Equipment & Disposal Facilities

Requires Skilled Workforce

= Specialized Capacity

# The Opportunities

First Nations

Non-Profits

Aquaculture Industry

Local Contractors

Advisory Groups

Provincial Government

Federal Government

# Strategic Partnerships



 **Government of Canada** **Gouvernement du Canada**  
**Fisheries and Oceans Canada**  
**Pêches et Océans Canada**



T'SOU-KE FIRST NATION



# Opportunities for Capacity Building & Engagement



CRS continues to support the resource management and environmental stewardship goals of our local First Nations Partners, through our “**First Nations, First**” policy.

This ensures that meaningful employment and contract opportunities are provided to local Indigenous peoples first.

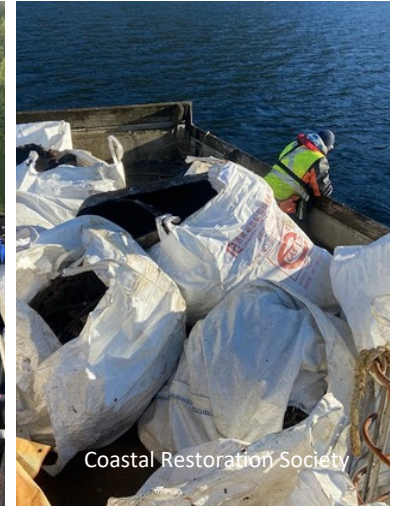
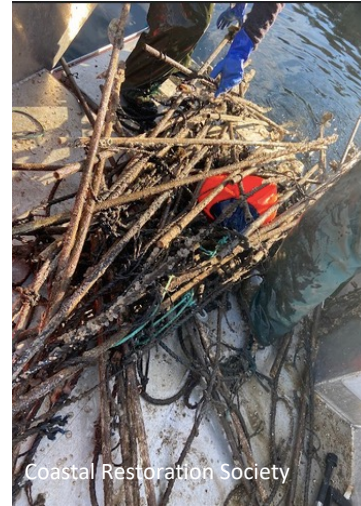
# Tla-o-qui-aht FCS Territory

## Site Logistics:

- Shellfish Aquaculture site
- Opitsaht, Clayoquot Sound
- Shallow Water Suspended System
- Subsurface Removal- CRS Dive Team

## Major Debris:

- ~ 6600 ft of oyster seed lines
  - ~29,000 ft Rope Removed
  - Large volumes of non-ALDFG debris
- ~22,000 kgs of total ALDFG Removed



# Huu-ay-aht FCS Territory

## Site Logistics:

- Finfish Aquaculture Site
- Bamfield Inlet, Barkley Sound
- Bivalve Aquaculture
- Hydro Fluorocarbons illegally stored and disposed
- SARA

## Major Debris:

- ~1200 Cubic Feet Of Polystyrene
- 95- 55 Gallon Barrels. 12 With Hazardous Waste
- ~3000 Ft Ropes, Nets, And Cables
- Primarily Structural Wood Debris

~108, 000 Kg of Total ALDFG Removed

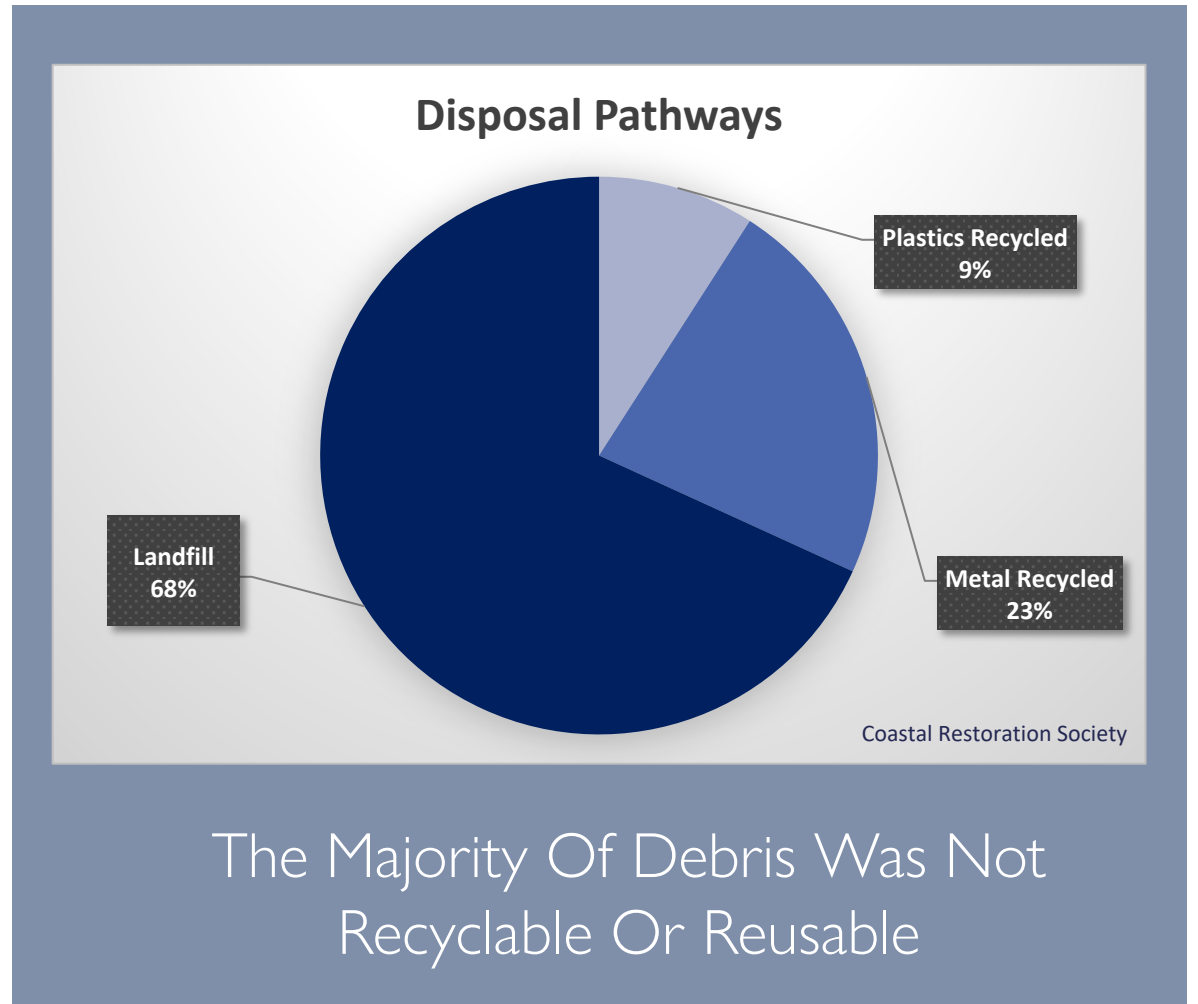




# Take-Aways

## Shellfish Aquaculture Site

- Predominately Plastics And Ropes Related to Suspending Trays
- Greatest Risks from Microplastics, Entanglement, and Bycatch
- Predominately Wood & Plastics Related to Floating Structures
- Greatest Risks from Microplastics, Entanglement, and Hydrocarbons



# Greatest Uncertainty

# Inactive Tenures

## Unknown Number and State of Tenures:

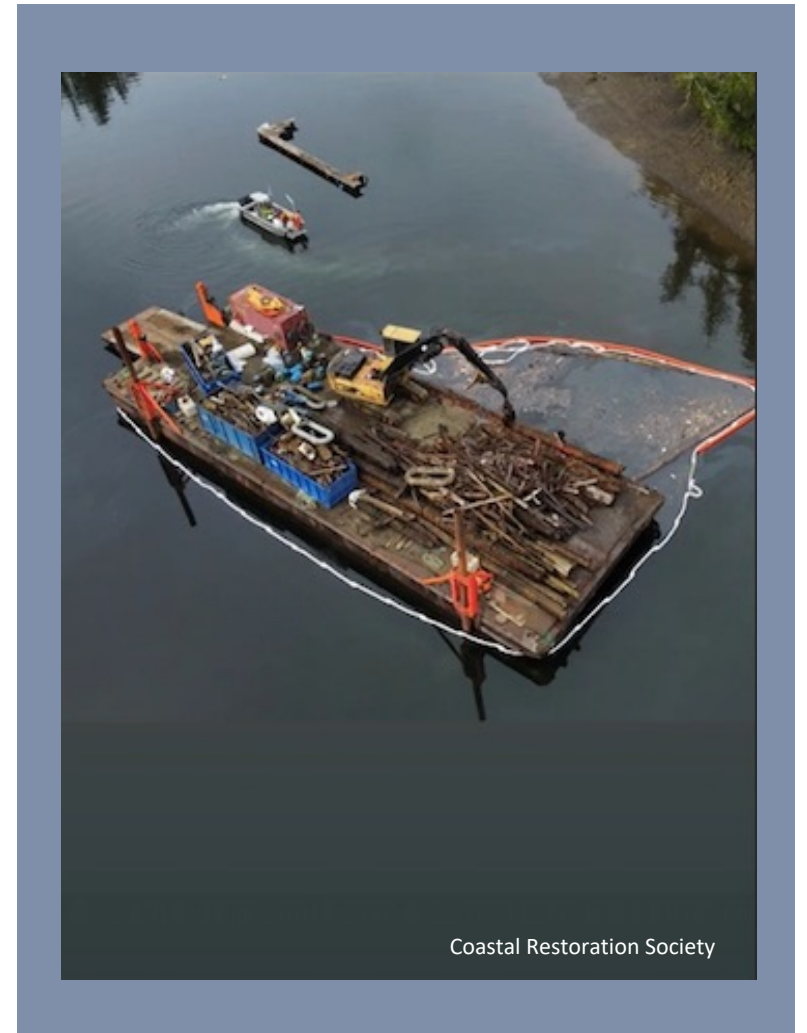
- Lacking Public Records for Inactive Tenures & Locations.
- Undetectable Submerged Suspended Shellfish Sites

## Date of Abandonment:

- The Longer the Site has Been Abandoned the Greater the Potential Decay, Debris Field, and Risks to the Surrounding Environment

## Increased Environmental Impacts & Costs From:

- Microplastics
- Hydrocarbon Pollution
- Sunken Structures



Coastal Restoration Society

# Future Opportunities for Industry Involvement

## Current Work

### Reacting to Government Priorities:

- Prioritization of sites to target marine hazards & obstructions

### Limited Understanding of Challenges:

- Inventory Aquaculture debris
- Quantify types and volumes

### Short-term Focus Removal Work:

- Removal of debris & hazards

## Future Work

### Responding to Emerging First Nations Priorities:

- Prioritization of sites to target to high-risk pollution, FCS Fisheries, & migration corridors

### Increased Understanding of the Challenges:

- Address data gaps around risk inactive sites
- Establish ongoing monitoring of active sites

### Long-term Multi-Focused Work:

- Restoration of habitat & species

Stakeholder  
Engagement

Capacity  
Building

Collaborative  
Planning

Coordinated  
Efforts

Strategic  
Prioritization

Environmental  
Assessment

Habitat  
Restoration

# Questions

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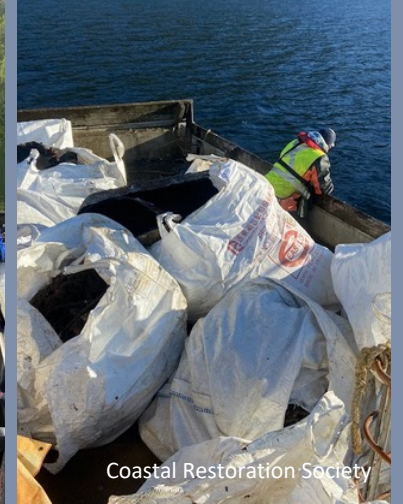
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# Huu-ay-aht FCS Territory

## Site Logistics:

- Finfish Aquaculture Site
- Jane Bay, Barkley Sound
- Open-water
- SARA- Surface Removal Only CRS Field

## Major Debris:

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