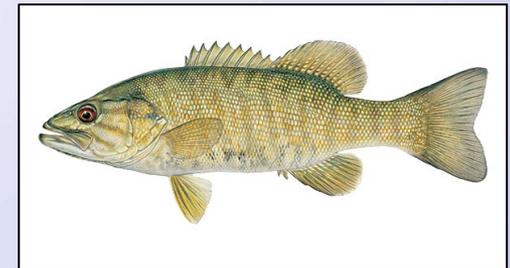




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BC AIS Program Update

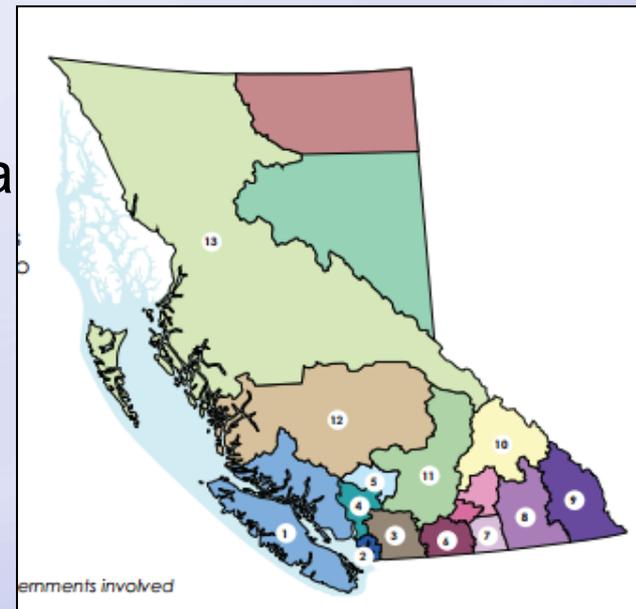


Martina Beck – BC Ministry of Environment
CRB Meeting
June 28th 2017
Helena, MT



AIS Update

- American bullfrog – ongoing eradication work
- Aquatic plant surveys continuing across BC summer 2017
- Don't Let it Loose campaign- prohibited fish/aquarium trade species
- Northern pike suppression work in Columbia River/Kootenay region
- Ongoing partnership with invasive species committees across the province on AIS and invasive plant work





Cherry Shrimp – Atlin, BC

- Freshwater shrimp, red in color averaging 15-30mm in size
- Native to China, Japan, Korea, Vietnam and Taiwan
- Spring 2016 they were found in a public warm spring pool near Atlin Lake
- Likely aquarium pet release
- Temperature loggers have been inserted near Atlin Lake/warm spring to assess tolerance/survival



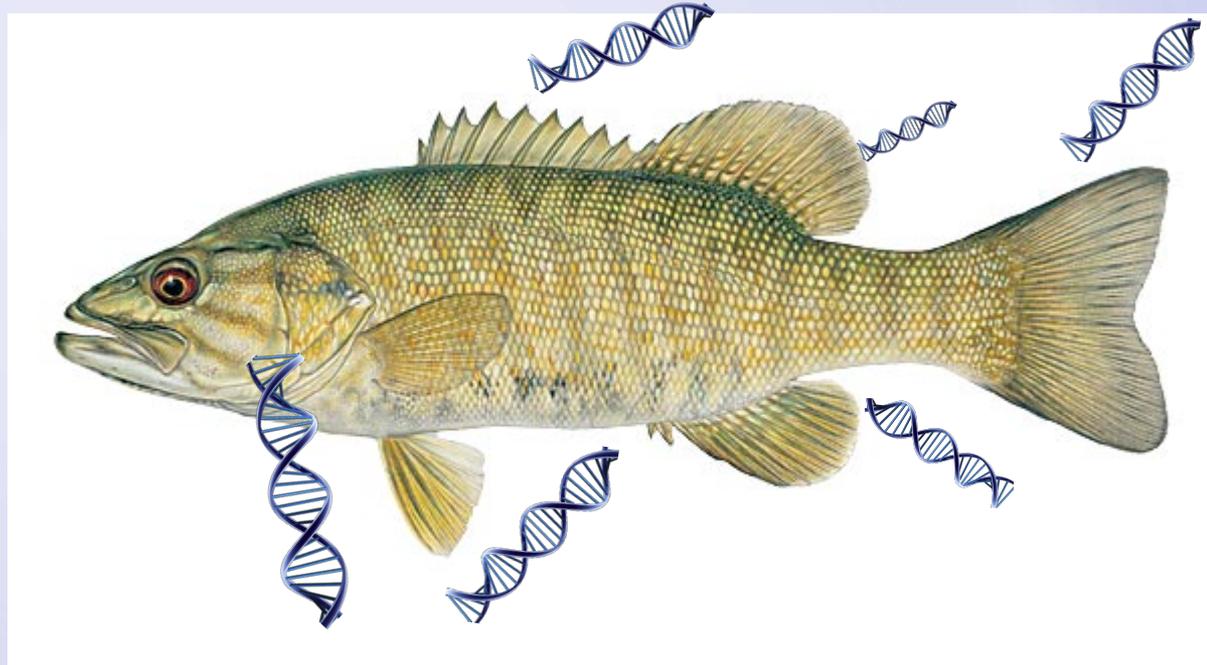
Photo credit: Pedro Doria Meunier



Environmental DNA (eDNA) project

Targeted species detection

- Yellow Perch
- Smallmouth Bass
- Northern Pike
- Largemouth Bass
- Zebra/quagga mussel



Project Goals

- Investigate AIS reports, 2° spread
- Assess eradication success



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BC Invasive Mussel Program



We are inspecting for **AQUATIC INVASIVE SPECIES** such as:

Asian Clam	Zebra & Quagga Mussels	Eurasian Watermilfoil	Live Fish

Supported by:

BRITISH COLUMBIA	FORTIS BC Columbia Basin Trust	isc Invasive Species Council of British Columbia





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2016 Program Funding

- In 2016 announced \$2 million to support program expansion
- Funded through Hydropower companies – multi-year agreements





2017 Program Enhancement

- Funding announced March 30th 2017 for program expansion valued at \$3M including:
 - \$2.45 million, primarily for the increased staffing.
 - \$450,000 over three years for lake monitoring
- Total program funding increased to \$4.5 million annually, with the hydro power partner funding



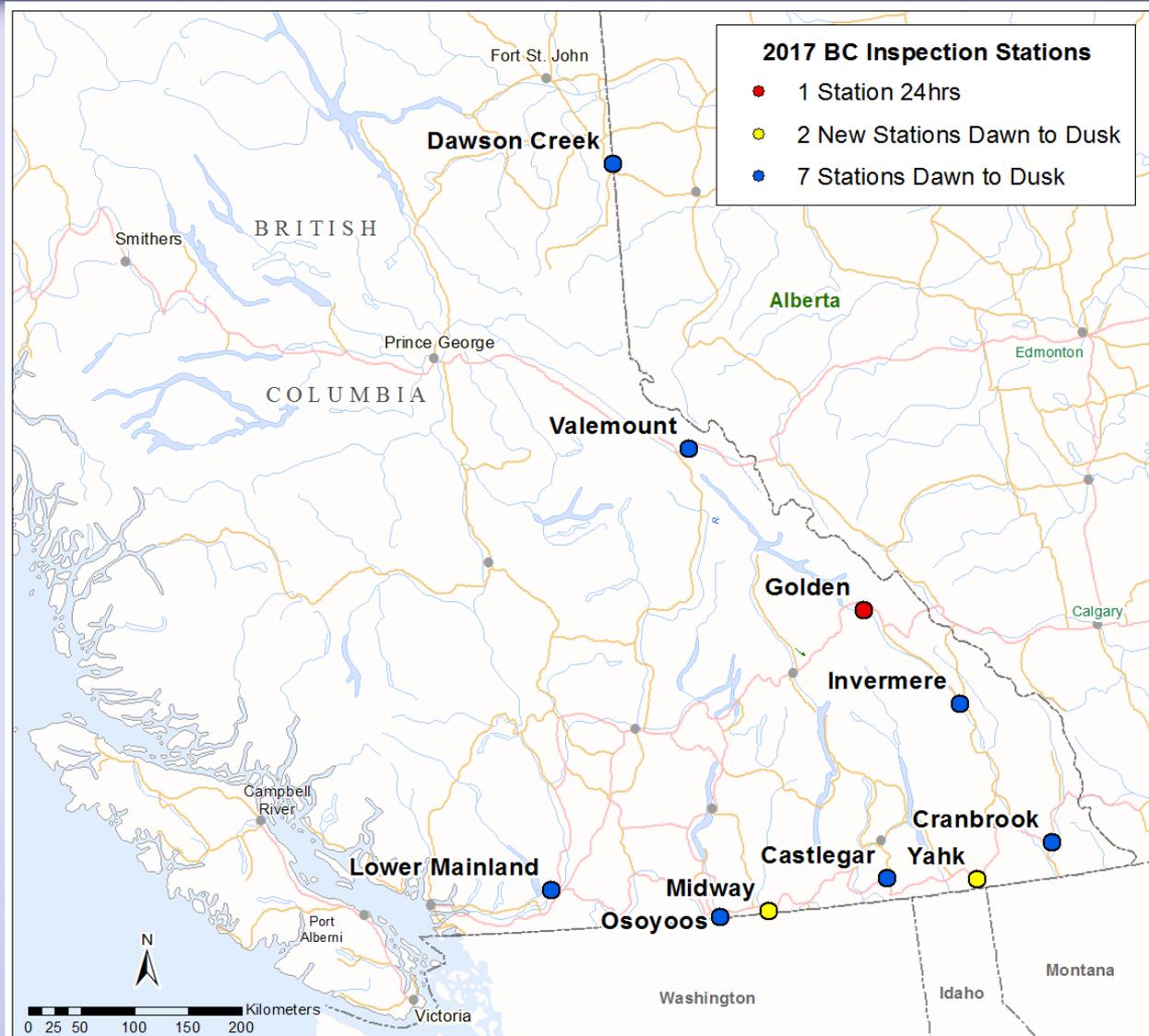


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Program Expansion

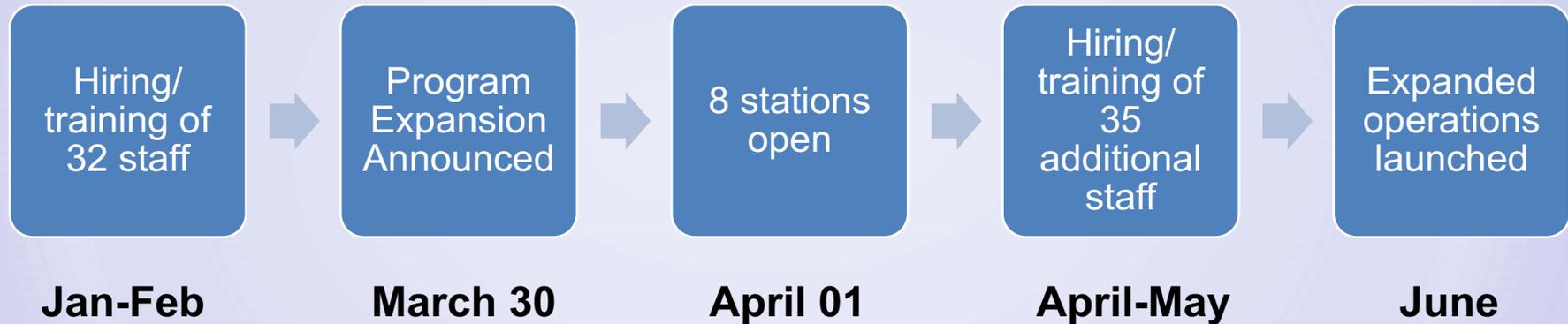
	2015	2016	2017
Inspection Stations	Roving	8	10
Number of Inspectors	12	32	68
Hours of Operation	5 days/week & 7hrs/day	7 days/week & 10hrs/day	9 stations dawn-dusk 7 days/week, 1 station 24hrs
Inspection Season	June-October	April to Sept/Oct	April/June to mid November*

* 8 stations operational since April 1st and 2 new stations and expanded hours started June 2017





Timeline of 2017 Program Expansion





Program Operations/Logistics

- Current BC AIS staffing:
 - **AIS Provincial Specialist** - Matthias Herborg ☹️ (1 FTE)
 - **Invasive Mussel Program Coordinator** - Martina Beck (1 FTE)
 - **Enforcement liaison/dog handler** - Sgt. Josh Lockwood (0.5 FTE)
 - **Administrative support** (1 FTE)
 - **2 Field coordinators** (seasonal 8 months)
 - 68 seasonal inspectors





Compliance and Enforcement

- 68 seasonal inspectors
 - Designated authorities for AIS
 - Only full time officers issue tickets for blow-by's
- In 2016 46 tickets and 36 warnings issued for failing to stop at inspection station (\$138 fine)
- Average compliance at roadside stations 81% in 2016
- Strong support and program integration with Conservation Officers and enforcement





BC Watercraft Inspection Data



	2015	2016	2017 (to date)
Total inspections	4,350	~24,500	6,657
Number of people interacted with	~10,000	~50,000	12,152
High Risk Watercraft	70	685	426
Mussel fouled boats	15	17	7
Commercially hauled			114
Aquatic plants			77
Hot Wash			90



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24 Hr. Operations - BC/AB Border

- 24hr operations started on June 11th
- 11 boats inspected – all low risk





Off-hours Inspection Reporting Hotline



- Establishing 1-800 number to be displayed on reader boards when stations are closed
- Information collected and inspectors follow up next day

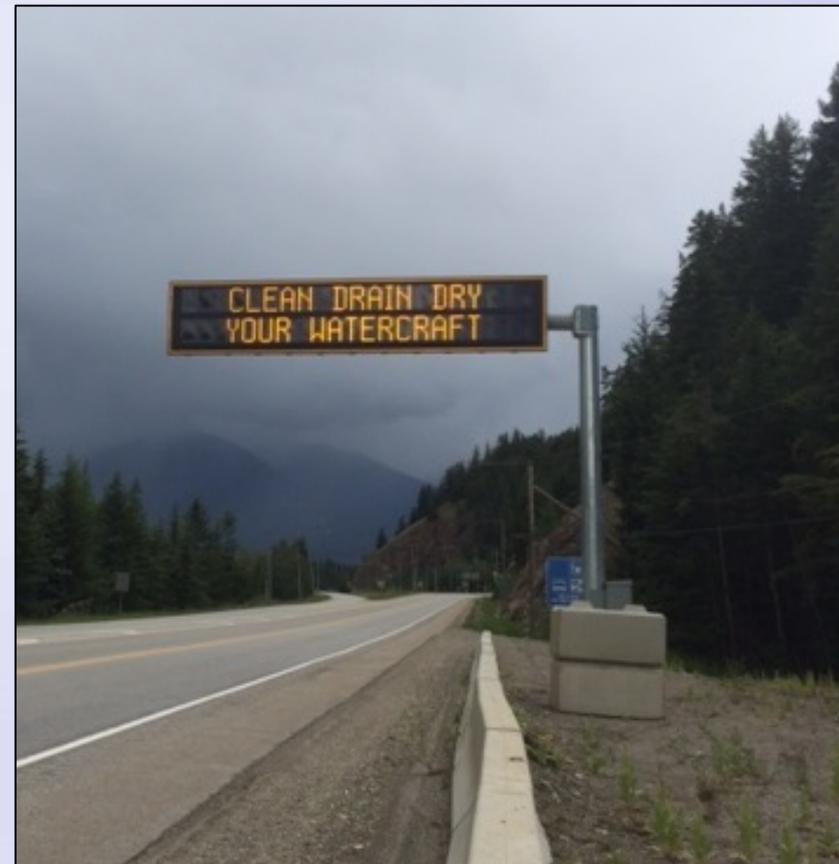




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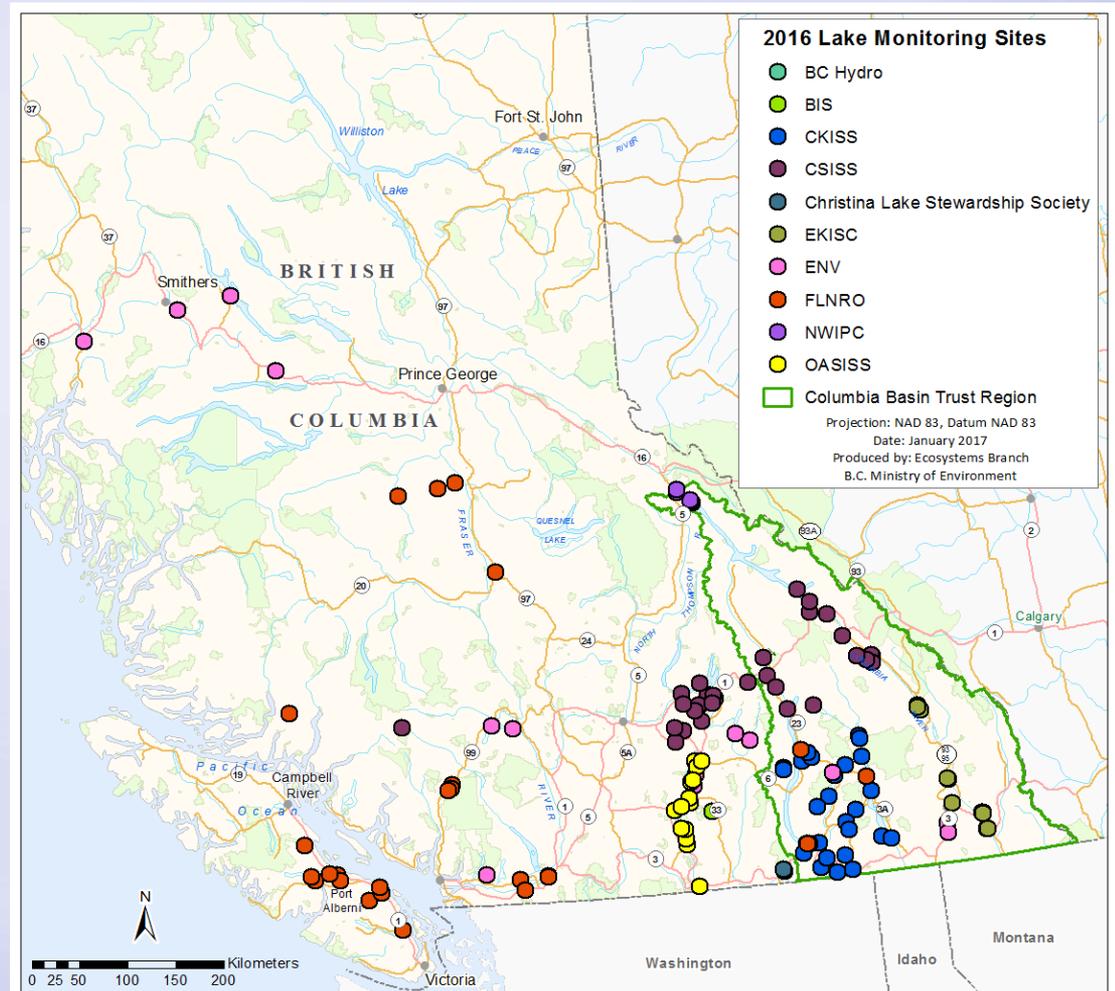
Ongoing Partnership with Highways





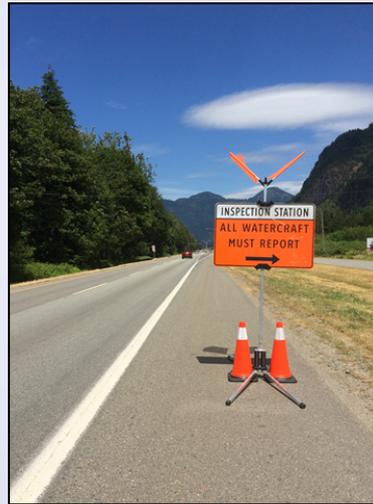
2017 Lake Monitoring

- 2017 – planning to double the number of samples collected
- Increase lab capacity for sample analysis
- Expand and build on existing partnerships for sample collection
- Risk matrix/strategy for lake selection





Optimal Placement of Watercraft Inspection Stations



Samuel Fischer, Mark Lewis– University of Alberta



Problem

- Limited resources are available for boat inspections
- Where should we place the inspections stations in order to minimize the
 - propagule inflow?
 - invasion risk?



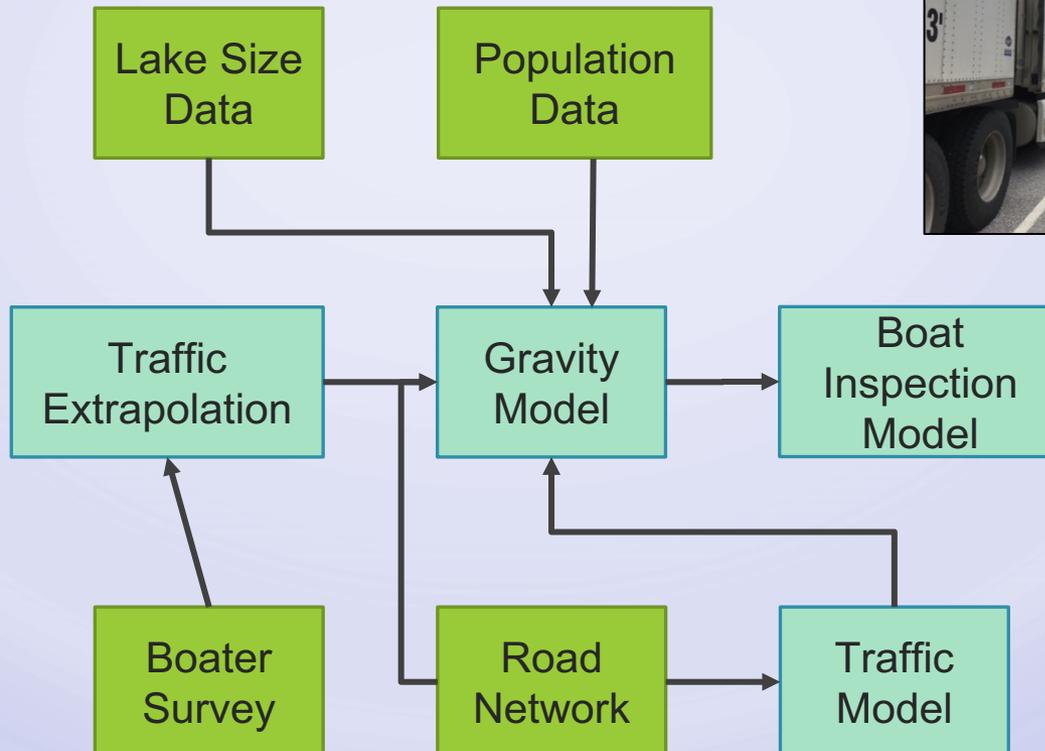


“Need to knows”

- How many boaters go from which infested jurisdiction to which lake?
- Which way do they choose?
- What are potential spots for inspection stations?
- **Which of these spots should we choose?**



Potential spots for inspection stations





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Notification process in BC





Notifications to BC

- Group email address for receiving all watercraft notifications:
 - COS.Aquatic.Invasive.Species@gov.bc.ca
 - Please send ALL notifications to this email
 - **DO NOT SEND TO Matthias – starting this Friday they will no longer get received!!!!!!!**





Notification Process - Port of Entry

- Working with Canadian Border Service Agency (CBSA) – high risk watercraft notification at all US border crossings
- Challenge – BC has ~ 14 port of entries
- Taken time to get consistent notifications from all border crossings
- 2017 now receiving regular notifications from most border crossings





New Boats – Manufacturers

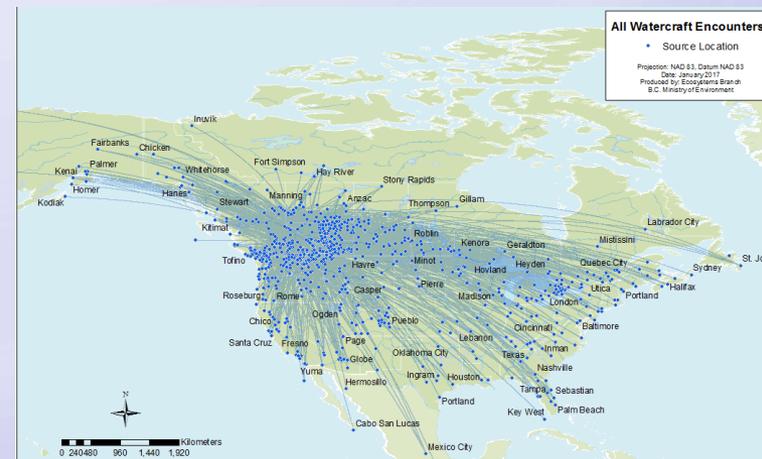
- Boat Manufacturer Database
- Tracking how new boats are tested
- Database used to track which manufacturers have “clean” practices with new boats – stay tuned for Alberta update





Notifications across jurisdictions

- When do jurisdictions want to receive watercraft notifications?
 - Only for mussel fouled boats?
- When are seals applied to boats?
 - Are seals applied for boats that are CDD?
 - Are they ever applied for enforcing drying time?
 - Does color mean anything?





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Notifications to BC

COS.Aquatic.Invasive.Species@gov.bc.ca