



Invasive  
Species  
Council of  
BC

Clean  
Drain Dry  
Program  
Summary  
Report

2014



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- BC Wildlife Federation
- Central Kootenay Invasive Plant Council
- Columbia Shuswap Invasive Species Society
- Columbia Shuswap Regional District
- East Kootenay Invasive Plant Council
- Fraser Valley Invasive Plant Council
- Fresh Water Fisheries Society of BC
- ISCBC Clean, Drain, Dry program staff

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## Executive Summary

The Invasive Species Council of BC (the Council) is a provincial charitable organization that works towards helping coordinate and unite a variety of concerned stakeholders in the struggle against invasive species in BC. Over the past 3 years, the Council has been working towards preventing further introduction and spread of aquatic invasive species by addressing key pathways of introduction, including boating activities.

In 2012, the Council developed and implemented a provincial Clean Drain Dry (CDD) behavior change program. The goal of the program is to prevent introduction and spread of AIS by educating boaters about aquatic AIS and encouraging them to change their behavior by committing to clean, drain and dry their boats before entering another water body.

Over the 3 year span of the program, delivery of the CDD message has been very successful. From 2012 to 2014 the message was shared at 1,250 education and outreach events in approximately 200 communities across British Columbia. It is estimated that the CDD message reached an estimated 30,000 boaters, youth, and members of the public. Through these efforts, approximately 3,500 verbal and 4,200 written clean drain dry commitments were secured. These results show that the program has been successful at reaching boaters with the CDD program and promoting positive behavior change.

To ensure that the CDD program is effectively and efficiently delivered across the province in the future, it is recommended that the Ambassador program is enhanced and expanded, the delivery method of the CDD message be modified so it is more flexible and easily incorporated into Ambassadors programs/messaging, and that the profile of the CDD program be strengthened across BC.

## Introduction

The introduction and spread of aquatic invasive species (AIS) in BC is affecting the province's environment, economy, society, including human health and threats are growing at an alarming rate. Human activities have increased the number and extent of AIS, within BC and throughout Canada.

Prevention of invasive species introductions is considered the cornerstone of invasive species management. This can be achieved by closing entry pathways and managing vectors of spread. Over the past 3 years, the Invasive Species Council of BC (ISCBC) has been working towards preventing further introduction and spread of AIS by addressing a key pathway of introduction, including boating activities.

In 2012, the ISCBC implemented its first behavior change program, Clean Drain Dry (CDD). The program mirrored several other similar programs being implemented across the Pacific Northwestern USA so that consistent messaging to boaters was being delivered across borders. The program has been developed based on the principals of Community Based Social Marketing and focuses on changing the behavior of boaters so that they clean, drain and dry their boats and equipment before entering another water body. The CDD message is a positive one that encourages boaters to make simple behavioral changes that enables them to play an integral role in protecting BC's environment, economy and citizens from AIS.

Since its inception, the CDD program messaging has remained consistent however the delivery mechanism has evolved. In 2012, the program was delivered in partnership with 12 regional invasive species committees. Each partnering committee was responsible for supervising and coordinating a team of two seasonal staff (24 hired in total), whose role was to deliver the CDD message to boaters at key boat launches across the province.

In 2013, the program was delivered in partnership with 5 regional invasive species committees at key regional boat launches and education and outreach events. A total of 8 seasonal employees were hired and worked under the supervision of the partnering invasive species committees. The main role of seasonal staff was to deliver the CDD message at key boat launches and education and outreach events within the 5 regions.

In 2014, the Council established strategic partnerships with 2 provincial and 5 regional stewardship groups, all of whom are involved in watershed and/or AIS management. The Council provided each partner, called Ambassadors, with the necessary tools to enable them to integrate and disseminate the CDD message through their program initiatives. In addition to CDD Ambassadors, the ISCBC was able to hire 2 seasonal aquatic liaisons to assist in delivering the CDD message at various education and outreach events in the Fraser Valley and Shuswap.

## 1.0. Approach and Methods

The 2014 Clean Drain Dry program was delivered across British Columbia through an integrated approach that involved program Ambassadors and ISCBC program staff. The information below outlines the roles of each group and how the CDD message was shared throughout BC.

### Clean Drain Dry Ambassador Program

The 2014 Aquatic Invasive Species Ambassador Program focused on creating strategic partnerships with groups across BC involved in watershed and/or AIS management. The CDD program facilitator issued a call for partners whose current programs were a good fit to incorporate the CDD messaging. Ambassadors were provided with the necessary training (online CDD training and AIS webinars) and resources (AIS rack cards, wallet cards, waterproof license holders, curriculum, youth activities, website content etc) to effectively deliver consistent CDD messaging and seek boater commitments. In return for the free training and resources, the ISCBC requested Ambassadors to report back on a few key program deliverables to help evaluate the program success.

A total of 2 provincial and 5 regional groups partnered on the Clean Drain Dry Ambassador program:

- **Provincial Partnerships-** Provincial partners were able to reach a variety of stewardship groups, organizations, boaters, youth and members of the public with the CDD message across the province by delivering the CDD message and resources through their existing provincial programs and external communications. The 2014 Provincial Ambassadors included:
  - BC Wildlife Federation
  - Freshwater Fisheries Society of BC

- **Regional Partnerships-** Regional partners were able to reach a variety of stewardship groups, organizations, boaters, youth and members of the public with the CDD message within their operating regions by delivering the message through their existing programs and external communications. The 2014 Regional Ambassadors included:
  - Central Kootenay Invasive Plant Committee.
  - Columbia Shuswap Invasive Species Society
  - East Kootenay Invasive Plant Council
  - Fraser Valley Invasive Plant Council
  - Columbia Shuswap Regional District

*“The clean drain dry message added to our invasive species messaging. It’s great to get people engaged in conversations regarding invasives and overall just generating awareness.” - Freshwater Fisheries Society of BC*

*“Indicates a united front between provincial and regional organizations and provides consistent messaging province-wide.”- Fraser Valley Invasive Plant Council*

*“It is our hope that we will be able to strengthen our partnership [with the Invasive Species Council of BC] in 2015 and continue to create aquatic invasive species...materials for a number of our programs including our Wild Kidz Camps and Wetland Keepers Courses...” – BC Wildlife Federation*

### In House Delivery of the Clean Drain Dry Program

Through support from the federal Canada Summer Jobs program, the ISCBC hired 2 seasonal aquatic liaisons to assist with the CDD program delivery. Liaisons were provided with training on AIS and the Clean Drain Dry program through a variety of online webinars and training sessions. Liaisons delivered AIS/CDD messaging at education and outreach events (no boat launches) in the Fraser Valley and Shuswap. These regions were chosen as priority areas as they contain numerous lakes that experience high volumes of boater activity which puts them at high risk for AIS introduction and spread. Under supervision of the CDD program facilitator, liaisons used a variety of targeted program resources to spread the CDD message and encourage responsible behavior change in boaters. These resources included information (rack) cards, AIS mini-brochures (wallet cards), water proof boat license pouches and aquatic invasive species fact sheets. Liaisons also asked boaters to participate in an onsite aquatic invasive species/boater survey. Where possible, team members secured a verbal or written commitment from boaters to clean, drain and dry their boat at the end of each interaction. Liaisons also spent a portion of their time building relationships with key stewardship groups, organizations, youth groups and member of the public by delivering program related presentations and leading group discussions.



## 2.0. Results

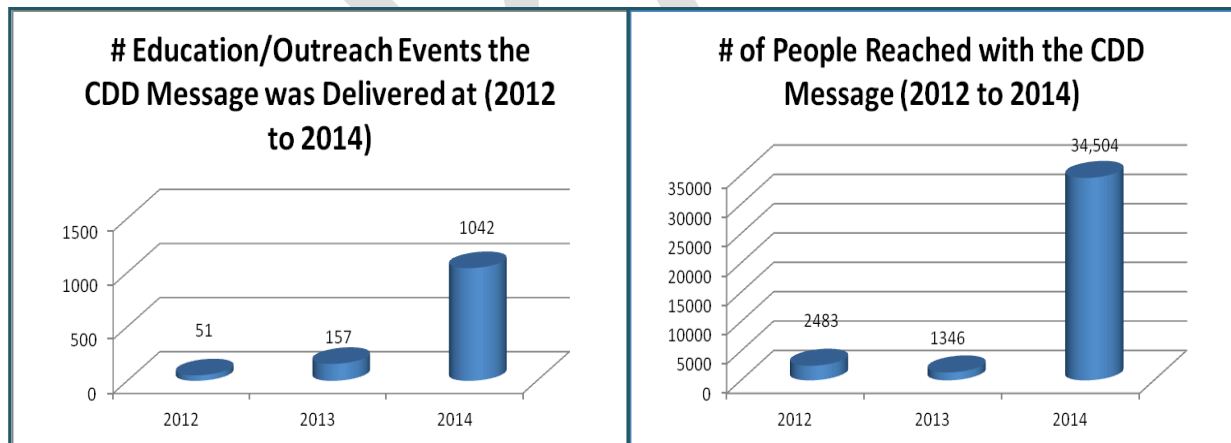
Overall, the 2014 Clean Drain Dry Program was successful. The response from the public was very positive and boaters were enthusiastic to learn about aquatic invasive species and what they can do to help prevent their introduction and spread.

### Education/Outreach

In 2014, the Clean Drain Dry message was shared at a total of 1,042 education and outreach events in approximately 117 communities across British Columbia. It is estimated that the CDD message reached an estimated 34,500 boaters, youth, and members of the public. The main avenue for sharing the CDD message and seeking behavior change commitments was through education and outreach events. Provincial and regional outreach events attended focused on reaching the target audience (boaters) and included events such as fishing derbies and boat shows. The CDD message was also delivered at numerous farmers markets and fairs. The CDD message was also shared through numerous provincial and regional educational opportunities reaching numerous stewardship groups, youth and general public.



Since 2012, the number of education and outreach events the CDD message has been delivered at as well as the number of people reached has drastically changed. The tables below shows the number of education outreach events the CDD message was shared at from 2012 to 2014, along with the number of people reached:



The increase in the number of education/outreach events that the CDD message was shared at over the 3 years is as a result of the shift in program design. In 2012, the CDD message was delivered strictly to boaters at key boat launches across the province. In 2013, the CDD message was delivered to boaters and members of the public at key boat launches and education/outreach events in 5 regions. In 2014, the CDD message was delivered through an Ambassador program where partners shared the message with boaters, stewardship groups, youth and members of the public strictly at education/outreach events across the province.



It is evident that the 2014 CDD Ambassador program has been highly successful in enabling the Council and its partners to share the CDD message at more education/outreach events and reach more people with the CDD message. These partnerships enabled broad delivery of the CDD message through large provincial and regional programs.

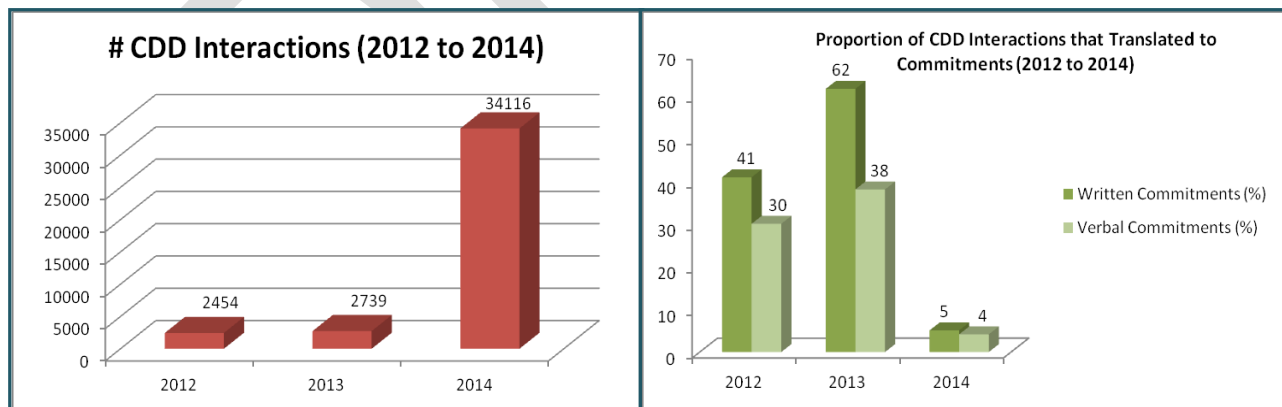
*The CDD message was delivered as part of the Learn to Fish program and reached 25,000 participants over 888 programs in 2014.*

### Clean Drain Dry Commitments

Where possible, partners and ISCBC staff engaged in conversation with boaters, educated them on AIS and the CDD message and sought both verbal and written commitments at the end of the interaction. When boaters committed, they were committing to “cleaning, draining and drying their boats and related equipment before entering another water body”, playing an integral role in helping stop the spread of aquatic invasive species within BC and beyond our national borders.



In 2014, approximately 34,000 face to face interactions were completed where the CDD message was shared with members of stewardship groups, government, youth and/or general public (Note: 25,000 participants were reached through the BC Freshwater Fisheries *Learn to Fish* program). As a result of these efforts, 1419 verbal and 1734 written clean drain dry commitments were obtained from boaters across the province. Of the 34,000 interactions that took place, approximately 91% of the interactions did not translate into a commitment. The tables below summarize the number of CDD interactions and proportion of interactions that translated into commitments from 2012 to 2014:



There are several reasons that may explain this trend:



- 1. Increased Number of Interactions-** the number of interactions obtained in 2014 was dramatically higher than those in 2012/2013. This is because of the broad delivery of the clean drain dry message through the Ambassador program. Also, the CDD message was delivered at numerous provincial education/outreach events that were very well attended.
- 2. Barriers Preventing Boater Commitments-** Barriers are what inhibit boaters from engaging in the desired clean drain dry behavior. Based on results of the boater survey, boaters didn't feel the need to commit to CDD based on the following comments received:
  - They don't own a boat (but participate in boating activities) (25%)
  - They only frequent a single lake with their boat (18%)
  - They don't have time (4%)
  - They are from out of province and feel CDD does not apply to them (7%)

### Clean Drain Dry Ambassadors

The 2014 provincial and regional Clean Drain Dry Ambassadors played an integral role in the program's success. By integrating the CDD message into their program initiatives, they successfully delivered the CDD message at 94% of the total education/outreach events accounted for; and were responsible for completing 87% of the program CDD interactions.

From these efforts, Ambassadors collectively secured 29% of the total verbal commitments and 47% of the total written commitments- the remaining commitments were obtained by ISCBC staff. Some Ambassadors found seeking commitments a challenge as it was difficult and awkward to integrate a commitment request into their education/outreach programs and messaging. Ambassadors have requested further guidance and training on how to effectively seek commitments during boater interactions.

### Clean Drain Dry Boater Survey

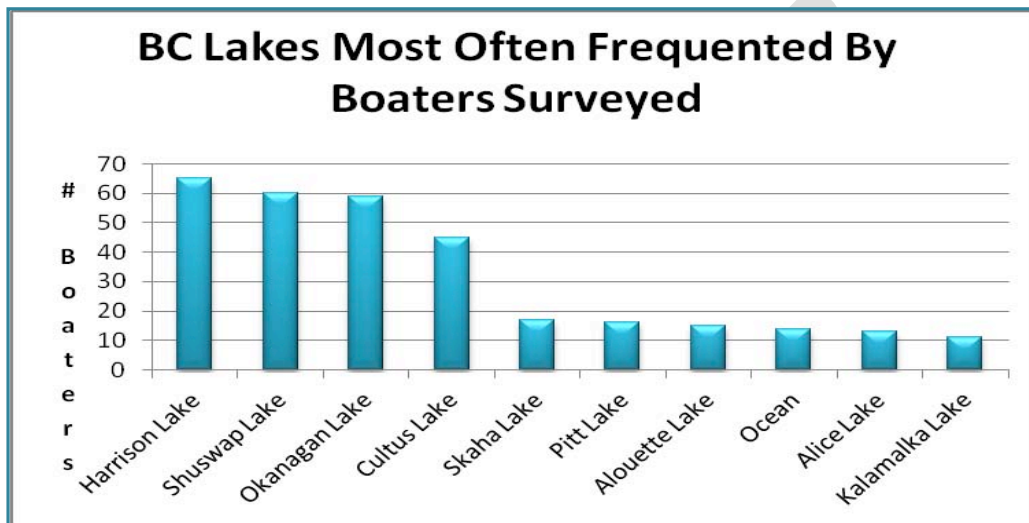
The 2014 boater survey (Appendix 1) was a condensed version of the 2013 program survey. A total of 354 surveys were completed by recreational boaters and anglers. A large portion of those surveyed (89%) had not yet heard of the CDD program, indicating that the program was successful in reaching new boaters. Some of the key findings related to boater demographics and behaviors are highlighted below:

#### **Boater Demographics**

- 1. Boater Group-** approximately 92% of the boater surveys completed were by recreational boaters and 8% were anglers. The 2013 CDD Summary report indicated that anglers have their boats in the water for longer periods of time and that they frequent more lakes than recreational boater. This suggests that angler activity is a key means by which AIS are introduced into water bodies. In future, it is important the CDD program focuses on reaching more anglers.
- 2. Boater Residency-** approximately 90% of the boaters surveyed were BC residents, while 6% were from Alberta. The remaining 4% of boaters were visitors from other provinces and states, such as

Saskatchewan, Ontario, Washington and Montana. This information illustrates that BC lakes are being frequented by both BC citizens and visitors from out of province. Use of BC lakes from out of province visitors could lead to the introduction of AIS that are not yet present in British Columbia.

3. **Popular BC Lakes:** The top three lakes frequented by boaters surveyed include Harrison Lake, Shuswap Lake, and Okanagan Lake. Program efforts should continue to focus in areas that have lakes that experience high boater activity – these are the lakes that are at most risk of aquatic invasive species introduction and spread. The graph below highlights the top 10 frequented water bodies, based on boaters that were surveyed.



### Boater Behavior

1. **Boater awareness:** 57% of the people that participated in the boater survey had some level of awareness of aquatic invasive species. Further, 56% of the boaters indicated that they already clean drain and dry their boats, as part of good boat maintenance. This shows that AIS issues and related messaging delivered through various stakeholder groups, including the ISCBC and the CDD program, continue to effectively reach boaters.
2. **Boater Activity:** 52% of boaters have their boats out of the water for less than a week. 88% of boaters believe that boating activity contributes to AIS introduction and spread. Although many boaters are practicing some form of clean drain dry (56%), there is still a large portion (44%) of the boater community that does not. Boating activity remains a key pathway of AIS introduction and spread.

### Clean Drain Dry Resources

The 2014 program resources focused on three key information tools (Appendix 2) that were developed specifically for the CDD program. These included:

1. **Waterproof pouches:** designed for boaters to store valuable items (keys, wallet etc) while out boating. These were designed as visual reminders and given to boater that committed to clean, drain and dry. An estimated 875 waterproof pouches were disseminated across the province in 2014.
2. **Information (rack) cards:** these cards contain pictures and detailed information on aquatic invasive species. Several rack cards were made available: Protect BC Waters From Zebra and Quagga Mussels, Protect BC Waters from Aquatic Invasive Species. An estimated 5420 rack cards were disseminated across the province in 2014.
3. **Folding wallet card:** these wallet size mini brochures contain pictures and information on aquatic invasive species and how to report them if seen. An estimated 25,000 wallet cards were disseminated across the province in 2014.

Based on feedback from program staff, partners and members of the general public, the AIS wallet cards were the preferred resource as it provided photos, identification and reporting tips for key AIS in BC. The AIS rack cards were less well received by the general public as they focused specifically on aquatic mussels and were large and cumbersome. The majority of boaters also appreciated the water proof liscence holder. In future, there is need to develop additional AIS resources that are regionally specific as well detailed fact sheets for key aquatic invasive species in BC.

### 3.0. Future Recommendations

The information collected in this report will help guide and improve the Clean Drain Dry program in the future. Below is a list of recommendations to consider for future program design, planning and delivery. These tasks and recommendations will be addressed by the ISCBC based on available funding in 2015:

1. **Enhance the CDD Ambassador Program** - overall, the 2014 CDD Ambassador Program was a success. This program proved to be an effective means to share the CDD message to a broader BC audience. Some of the key recommendations to enhance the CDD Ambassador program include:
  - Building upon existing partnerships and seeking new partnerships with key stewardship groups across the province to help in the province wide delivery of the CDD program;
  - Developing a formal partnership framework for each partner that outlines how the CDD message will be delivered, program deliverables and timelines;
  - Providing timely and more formal information/training sessions on aquatic invasive species and the Clean Drain Dry program and/or providing sufficient training to enable Ambassadors to train their program partners to deliver the CDD message;
  - Providing incentives, monetary or non-monetary, to Ambassadors to encourage them to deliver the CDD message and fulfill all aspects of the partnership framework; and
  - Improving public acknowledgment of partners for their efforts on the program.
2. **Improve Delivery of the Clean Drain Dry Message**- a more flexible approach for delivering the CDD message will improve the number of boaters committing to change their behavior and clean drain dry. In order to achieve this, the following recommendations are provided:

- Working with each Ambassador group to develop a tailored CDD program that enables them to incorporate the messaging into their programs and effectively seek clean drain dry commitments;
- Devising a simplified and natural way to seek verbal and written commitments from boaters; and
- Increasing the number of interactions with the target audience (recreational boaters/anglers) by promoting and enabling CDD interactions at key boat launches across BC in addition to delivering the CDD message at relevant education and outreach events.

**3. Enhance the CDD program profile-** A large portion of the boater population is still unaware of AIS and their impacts to BC's environment, economy and society. In order to enhance the CDD program profile and achieve the desired behavior change in boaters across BC, the following is recommended:

- Promoting the CDD program through provincial aquatic invasive species training workshops hosted by the ISCBC;
- Enhanced CDD program advertising by promoting the program and its message on the ISCBC and Ambassadors websites, through external communications (newsletters, articles, signs) and through media (radio, TV, internet).
- Promoting the CDD program and its message at key provincial level education and outreach events, such as conferences, webinar series and workshops.

#### 4.0. Going Forward

The ISCBC is working in partnership with a provincial aquatic advisory committee to finalize a two-year Aquatic Action Plan, which will guide the Council's aquatics program in 2015 and beyond. The Council is seeking funding to continue the CDD program and expand delivery of the message through existing and additional program Ambassadors. The Council also plans to expand their aquatics program so it addresses additional pathways of aquatic invasive species introduction and spread, including activities linked to the pet and aquarium trade. The Council is actively seeking resources to support 2015 program delivery.



## Appendix 1: Clean Drain Dry Boater Survey



*Invasive Species Council  
of British Columbia*



1. Where are you from? (City/Province/State)
2. Do you own a boat or participate in boating activities? **( Y / N )**
3. If you own a boat:
  - Are you a recreational boater or an angler?
  - What are the top 3 BC lakes that you frequent?
  - Do you keep your boat out of the water for more than a week before putting it into another water body? **( Y / N )**
4. Do you have knowledge of aquatic invasive species? **( Y / N / S / NS )**
5. Do you think boater activities can contribute to the spread of aquatic invasive species? **( Y / N / S / NS )**
6. Do you practice cleaning, draining and drying your boat before entering another water body? **( Y / N / S )**
7. Have you had previous conversations with an ISCBC staff member about the Clean Drain Dry Program? **( Y / N )**
  - If yes, did you change your boating behavior due to this interaction? **( Y / N / S )**
  - If no, do you know and understand the motto CLEAN DRAIN and DRY for boaters? **( Y / N / S / NS )**
8. Are you willing to help protect BCs water resources by committing to always CDD your boat before entering a water body? **( Y / N )**

If yes, please provide the following:

  - Name
  - Signature:
  - Email (optional):
  - Permission to publish first name/last name initial on the ISCBC website **( Y / N )**

If no – please let us know why?

## Appendix 2- Clean Drain Dry Program Resources



Rack Card



Wallet Card

