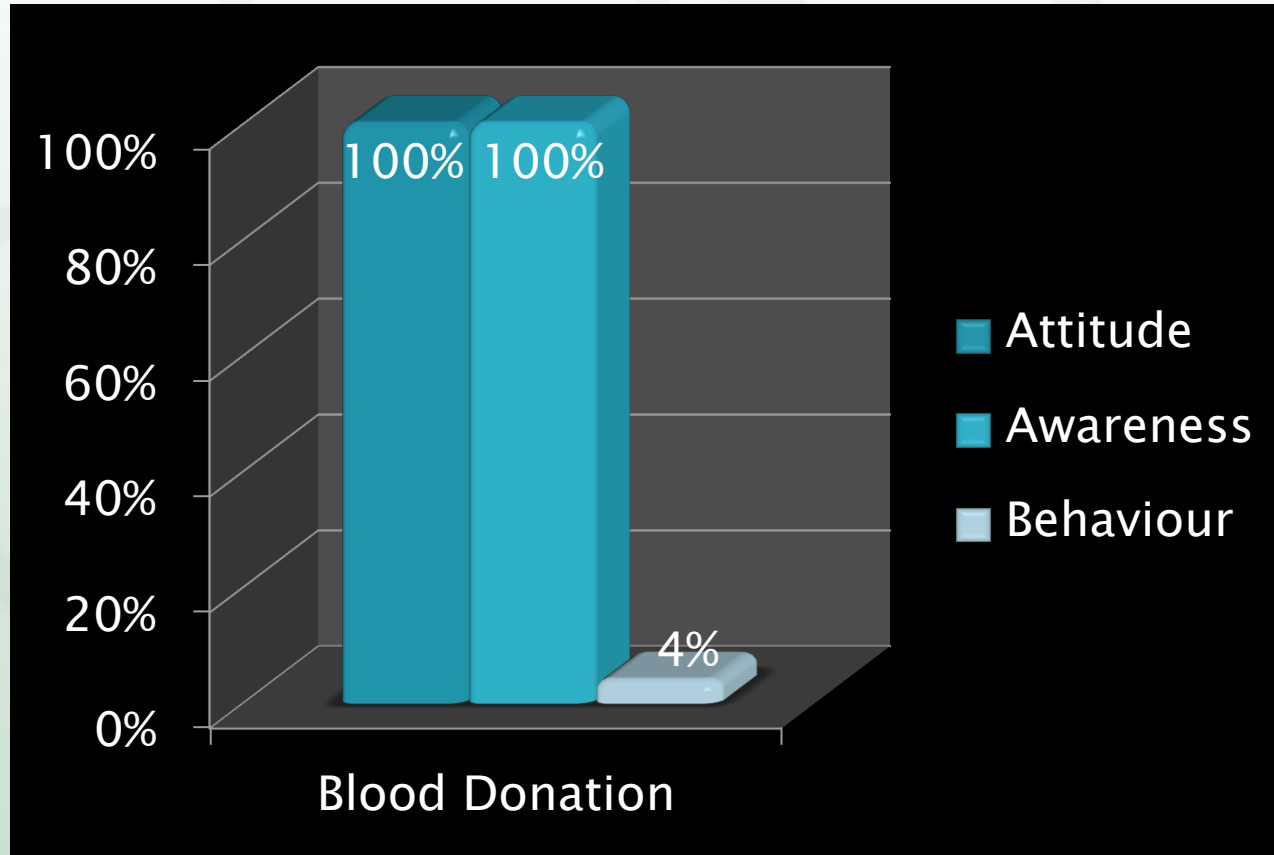


# Curbing Invasive Species

## A Behaviour-based Approach

Ken Donnelly  
IPSBC  
January 24, 2012

# Blood Donation in Canada



# Awareness vs. Behaviour

- ▶ The right thing to do is not necessarily done
  - Donate blood
  - Recycle
  - Turn down a thermostat
  - Limit lawn watering
  - Take medication
  - Drain a bilge
  - Turn off the lights



# The Challenge!

*Thinking is easy, acting difficult, and to put one's thoughts into action is the most difficult thing in the world*

*--- Johann Wolfgang von Goethe*



# Community-Based Social Marketing

# Promoting Behaviours

- ▶ Behavioural Psychologists study this issue
- ▶ Dr. Doug McKenzie-Mohr, St. Thomas University, Canada
  - Community-based Social Marketing
  - Promoting good actions



# What is Community-Based Social Marketing?

- ▶ Applying Behavioural Psychology to environmental program promotion
- ▶ Builds upon awareness
- ▶ Identify barriers to behaviour and remove them
- ▶ Emphasis on personal contact



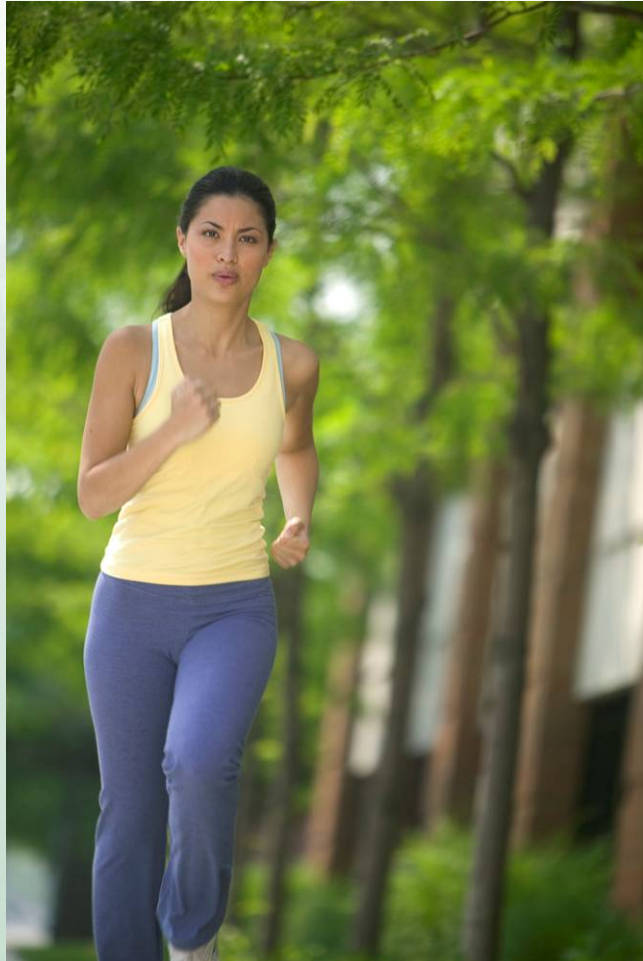
# Bridging the Gap

- ▶ Don't focus on awareness
- ▶ Don't focus on attitude
- ▶ Focus on behaviour
  - because that is what you want to achieve





# Just Do It!



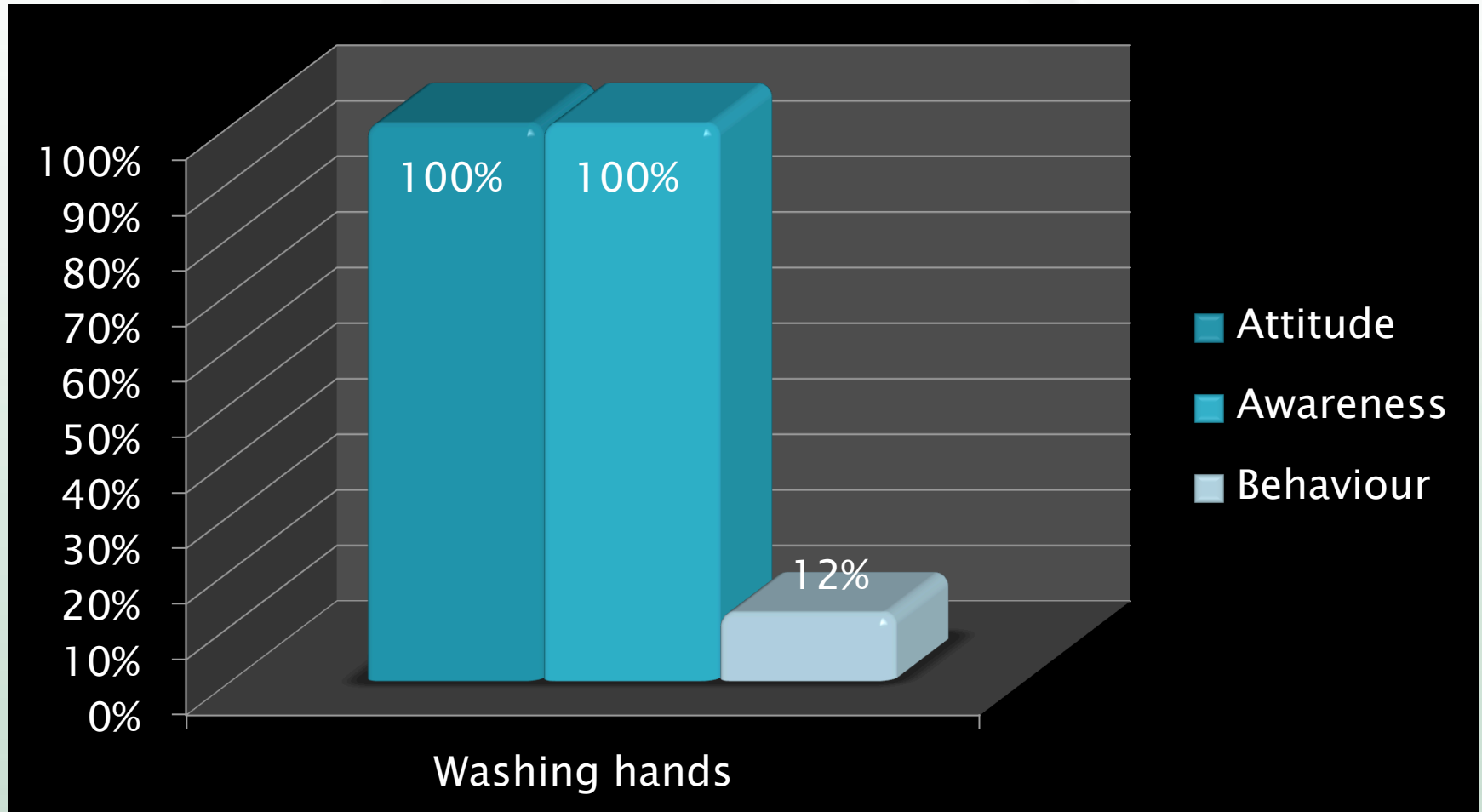
- ▶ We need tools that foster preferred behaviours
  - Recycling/composting
  - Getting fit
  - Reducing energy use
  - Reducing spread of invasive species
  - Stopping engine idling

# The CBSM Toolbox

- ▶ Research
- ▶ Small questions
- ▶ Commitment strategies
- ▶ Prompts
- ▶ Norms
- ▶ Effective Communications



# Doctors Washing Hands



# Changing Boater and Angler Behaviours on Lake Simcoe, Ontario



# Lake Simcoe



# Why Community Based Social Marketing on Lake Simcoe?

- ▶ Education and behavioural changes are key to preventing new invasive species introductions
- ▶ The recreational boater and angler (live bait use) pathways pose significant risks to the Lake Simcoe watershed and require behavioural changes to reduce that risk
- ▶ Cannot rely on awareness and attitude alone

# Goals for Lake Simcoe

1. Changing boater behaviour:  
clean boats, equipment and gear after leaving one water body and before entering another
2. Changing angler behaviour:  
stop releasing bait and dumping bait buckets in a water body



# Phase I - Research and CBSM Strategy Development



**STOP AQUATIC  
HITCHHIKERS!™**

Prevent the transport of nuisance species.  
Clean all recreational equipment.  
[www.ProtectYourWaters.net](http://www.ProtectYourWaters.net)

▶ Identifying barriers to behavioural change:

1. Literature Review
2. Conduct focus groups
  - 2010 Sportsmen's Show
  - Boater and angler focus groups
3. Conduct a survey
  - 2009 Invading Species Survey



**Keep All Our  
Lakes Great!**

**You can stop invading species**



# Barriers to overcome

## ▶ Attitudinal

- Belief that preventative behaviours may be worse than invasive species
- Belief that resistance is futile
- Don't want to pay extra
- Don't believe it would prevent spread
- Don't believe AIS are a problem
- Don't have time



# Barriers to overcome

## ▶ Norm Barriers

- Belief that issue not a priority for institutions
- Belief that the general public doesn't know/care

## ▶ Behavioural Control Barriers

- Belief that one doesn't know what to do
- Belief that preventative behaviours are too difficult to perform

# Barriers to Overcome

## ▶ Knowledge Barriers

- Don't know what to do
- Don't know about AIS
- Belief that they don't boat in infested waters



## ▶ Structural Barriers

- Boat washing equipment not readily available



# Phase II - CBSM Pilot Implementation

- ▶ **WHERE:** Marinas and public boat launches
  - Ideal point of contact with target audiences for the CBSM pilot is at marinas or public boat launches
- ▶ **WHEN:** Spring 2011
  - Targeted opening season and long weekend boaters





# Phase II - CBSM Pilot Implementation



- ▶ HOW: CBSM tools
  - Structural - mobile boat washing facilities, bait disposal facilities
  - Personal communication
  - Commitments
  - Prompts
  - Other educational materials



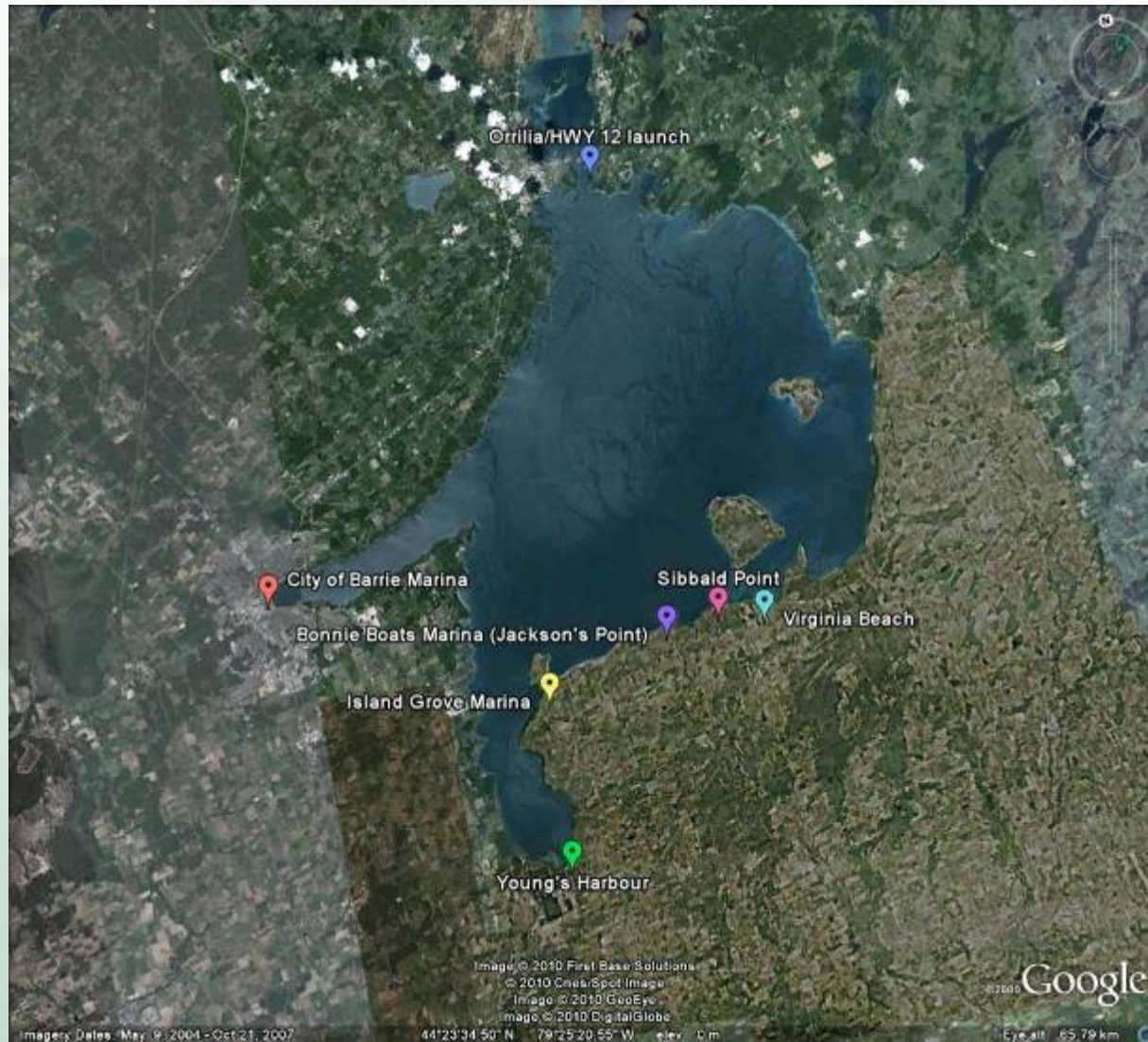
# Phase II - CBSM Pilot Implementation

- ▶ Intention is to compare behavioural change across 3 site conditions:

| Condition #1 - High Intensity Pilot Staff + Mobile Boat Washing & AIS Disposal Facilities  | Condition #2 - Medium Intensity Mobile Boat Washing & AIS Disposal Facilities Only   | Condition #3 - Control No equipment or intervention  |
|--|--|--|
| <ul style="list-style-type: none"> <li>▶ Pilot staff onsite to provide information and education materials and seek commitments</li> <li>▶ Boat-washing and AIS disposal facilities available</li> <li>▶ Signs in place</li> </ul> | <ul style="list-style-type: none"> <li>▶ Boat-washing and AIS disposal facilities available</li> <li>▶ Signs in place</li> <li>▶ No staff intervention - pilot staff on site to supervise equipment use</li> </ul> | <ul style="list-style-type: none"> <li>▶ No interventions - serves as a basis for comparison versus Condition #1 and #2</li> </ul> |

- Baseline (pre-pilot) and post-pilot observations and surveys/questioning will then be compared across sites
  - Ex. boat washing observations prior to launch

# Phase II - CBSM Pilot Implementation





# Mobile Boat Wash Station





# Commitments







# Results – Boater Behaviour

## ▶ During Pilot Observations

| <b>Pilot Site Intensity Level</b> | <b>Used Boat Wash Station</b> | <b>Drained Boat Bilges</b> | <b>Drained Lower Unit of Motor</b> |
|-----------------------------------|-------------------------------|----------------------------|------------------------------------|
| <b>High Intensity</b>             | <b>73%</b>                    | <b>81%</b>                 | <b>63%</b>                         |
| <b>Medium Intensity</b>           | <b>32%</b>                    | <b>53%</b>                 | <b>48%</b>                         |
| <b>Control</b>                    | <b>N/A</b>                    | <b>32%</b>                 | <b>22%</b>                         |

# Results – Boater Behaviour

## ▶ Pre and Post Pilot Observations

| <b>High Intensity Sites</b>        |                     |                    |
|------------------------------------|---------------------|--------------------|
|                                    | <b>Before Pilot</b> | <b>After Pilot</b> |
| <b>Used Boat Wash Station</b>      | 35%                 | 70%                |
| <b>Drained Boat Bilges</b>         | 26%                 | 83%                |
| <b>Drained Lower Unit of Motor</b> | 26%                 | 54%                |



# Results – Boater Behaviour

## ▶ Pre and Post Pilot Observations

| Medium Intensity Sites      |              |             |
|-----------------------------|--------------|-------------|
|                             | Before Pilot | After Pilot |
| Used Boat Wash Station      | 33%          | 42%         |
| Drained Boat Bilges         | 78%          | 83%         |
| Drained Lower Unit of Motor | 100%         | 83%         |

# Results – Boater Behaviour

## ▶ Pre and Post Pilot Observations

| <b>Control Sites</b>               |                     |                    |
|------------------------------------|---------------------|--------------------|
|                                    | <b>Before Pilot</b> | <b>After Pilot</b> |
| <b>Used Boat Wash Station</b>      | 40%                 | 48%                |
| <b>Drained Boat Bilges</b>         | 90%                 | 76%                |
| <b>Drained Lower Unit of Motor</b> | 50%                 | 50%                |

# Summary

- ▶ By marketing for the goal of establishing behaviour, much better results were established than what was achieved by marketing for awareness and attitude
- ▶ Next step is to roll-out a comprehensive program based on findings of the pilot.

# Opportunities in BC



- ▶ Can take similar approach of marketing for behaviour
- ▶ Having 2 contract workers in 13 areas for 4 months is very exciting
  - Provides opportunity for face-to-face communications
  - Can try different approaches and evaluate them
  - Could develop a cutting-edge program that will be effective here, but also beyond BC

# Social Media

# What is Social Media?

- ▶ Powerful online communication tools
- ▶ Increasingly being used by public and private sector to meet communication objectives
- ▶ Two-way engagement



# Why Social Media is Right for CBSM



## **Awareness and Attitude**

- Reaches many people for free, diffusion on steroids
- Look at Arab Spring

## **Prompt Distribution**

- Put prompts on web so people can download them
- Show a video of how to affix it

## **Commitment**

- Secure public commitments on a website

## **Social Norm**

- Easy to show everyone is doing it

# Questions





# Thank You

*Ken Donnelly*

*Lura Consulting*

*@beyondattitude*

*[www.beyondattitude.com](http://www.beyondattitude.com)*

*[www.facebook.com/beyondattitude](http://www.facebook.com/beyondattitude)*

*[kdonnelly@lura.ca](mailto:kdonnelly@lura.ca)*

*(902)422-8088*