

DAILY SEABINS WASTE CHARACTERIZATION

Purpose: This SOP is intended to collect the bare minimum amount of data necessary to estimate the amount of anthropogenic litter diverted from the Great Lakes by Seabins. **Please empty every Seabin at each location every 24 hours, or when the Seabin is full. For best result, implement this into your daily routine.**

Safety Notes:

- Prior to walking on the dock to obtain the Seabin put on your life-jacket.
- When collecting the debris from each Seabin, ensure that the power is off so the Seabin is no longer pumping water.
- When retrieving the bin use an extension pole or pike pole.
- We recommend wearing gloves to remove the waste from the bin.
- If dangerous materials are found dispose of it with care; e.g., a used syringe should be placed in a Sharps Container.

Materials:

- Trash Scale (luggage scale)
- Gloves
- This protocol
- Clipboard (unless using the app)
- Datasheets on waterproof paper (unless using the app)
- Pencil or Fine-tip Sharpie (unless using the app)
- Camera or cell phone camera (if using app, you'll take a picture with the same device your app is on)
- Garbage bags

Directions:

- With the provided datasheet, or the app, fill out your name, the location, date and time at which the bins were deployed and removed.
- Mark whether this bin captured a "wet event" (to be considered a wet event, the amount of rainfall must be $> 10\text{mm}$ over a 24h period).
- On the datasheet tick off the weather conditions.
- On site, unplug the Seabin ensuring the vacuum is off.
- Take the extension pole and remove the catch bag from the Seabin.
- Shake the catch bag to remove as much water as possible.
- Next, weigh the catch bag with the debris using a trash scale. Record the weight on the datasheet or in the app.
- Record how full the catch bin is (full to the brim, half full, quarter full).
- Take a picture of the catch bag from the top before it is emptied.
- Dispose of items in the catch bag according to your organization.
- Place catch bag back into the Seabin and turn the power back on.

If you are not using the app, please take a picture of the datasheet and send it together with pictures of the contents of the catch bag to: cassandra.sherlock@mail.utoronto.ca

Employee name:	Location of bin:	Date Bins Deployed:	Time Bins Deployed:
Date bins removed:	Time bins removed:		
Wet event (amount of rainfall must be > 10mm over 24h):	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Wind conditions:	<input type="checkbox"/> Windy	<input type="checkbox"/> Calm	
Weather conditions:	<input type="checkbox"/> Sunny	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Rainy
Picture of the contents?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Weight of full bin (include the unit of measurement):			
Amount of debris in the catch bin:	<input type="checkbox"/> Full to the brim	<input type="checkbox"/> Half full	<input type="checkbox"/> Quarter full
Notes:			

Employee name:	Location of bin:	Date Bins Deployed:	Time Bins Deployed:
Date bins removed:	Time bins removed:		
Wet event (amount of rainfall must be > 10mm over 24h):	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Windy or Calm	<input type="checkbox"/> Windy	<input type="checkbox"/> Calm	
Weather conditions	<input type="checkbox"/> Sunny	<input type="checkbox"/> Cloudy	<input type="checkbox"/> Rainy
Picture of the contents?:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Weight of full bin (include the unit of measurement):			
Amount of debris in the catch bin:	<input type="checkbox"/> Full to the brim	<input type="checkbox"/> Half full	<input type="checkbox"/> Quarter full
Notes:			

Employee name:		Location of bin:		Date Bins Deployed:	Time Bins Deployed:
Date bins removed:		Time bins removed:			
Wet event (amount of rainfall must be > 10mm over 24h):		<input type="checkbox"/> Yes		<input type="checkbox"/> No	
Windy or Calm	<input type="checkbox"/> Windy		<input type="checkbox"/> Calm		
Weather conditions	<input type="checkbox"/> Sunny	<input type="checkbox"/> Cloudy		Rainy	
Picture of the contents?:	<input type="checkbox"/> Yes		<input type="checkbox"/> No		
Weight of full bin (include the unit of measurement):					
Amount of debris in the catch bin:	<input type="checkbox"/> Full to the brim	<input type="checkbox"/> Half full		<input type="checkbox"/> Quarter full	
Notes:					

Employee name:		Location of bin:		Date Bins Deployed:	Time Bins Deployed:
Date bins removed:		Time bins removed:			
Wet event (amount of rainfall must be > 10mm over 24h):		<input type="checkbox"/> Yes		<input type="checkbox"/> No	
Windy or Calm	<input type="checkbox"/> Windy		<input type="checkbox"/> Calm		
Weather conditions	<input type="checkbox"/> Sunny	<input type="checkbox"/> Cloudy		<input type="checkbox"/> Rainy	
Picture of the contents?:	<input type="checkbox"/> Yes		<input type="checkbox"/> No		
Weight of full bin (include the unit of measurement):					
Amount of debris in the catch bin:	<input type="checkbox"/> Full to the brim	<input type="checkbox"/> Half full		<input type="checkbox"/> Quarter full	
Notes:					

Employee name:		Location of bin:		Date Bins Deployed:	Time Bins Deployed:
Date bins removed:		Time bins removed:			
Wet event (amount of rainfall must be > 10mm over 24h):		<input type="checkbox"/> Yes		<input type="checkbox"/> No	
Windy or Calm	<input type="checkbox"/> Windy		<input type="checkbox"/> Calm		
Weather conditions	<input type="checkbox"/> Sunny	<input type="checkbox"/> Cloudy		<input type="checkbox"/> Rainy	
Picture of the contents?:	<input type="checkbox"/> Yes		<input type="checkbox"/> No		
Weight of full bin (include the unit of measurement):					
Amount of debris in the catch bin:	<input type="checkbox"/> Full to the brim	<input type="checkbox"/> Half full		<input type="checkbox"/> Quarter full	
Notes:					

Employee name:		Location of bin:		Date Bins Deployed:	Time Bins Deployed:
Date bins removed:		Time bins removed:			
Wet event (amount of rainfall must be > 10mm over 24h):		<input type="checkbox"/> Yes		<input type="checkbox"/> No	
Windy or Calm	<input type="checkbox"/> Windy		<input type="checkbox"/> Calm		
Weather conditions	<input type="checkbox"/> Sunny	<input type="checkbox"/> Cloudy		<input type="checkbox"/> Rainy	
Picture of the contents?:	<input type="checkbox"/> Yes		<input type="checkbox"/> No		
Weight of full bin (include the unit of measurement):					
Amount of debris in the catch bin:	<input type="checkbox"/> Full to the brim	<input type="checkbox"/> Half full		<input type="checkbox"/> Quarter full	
Notes:					