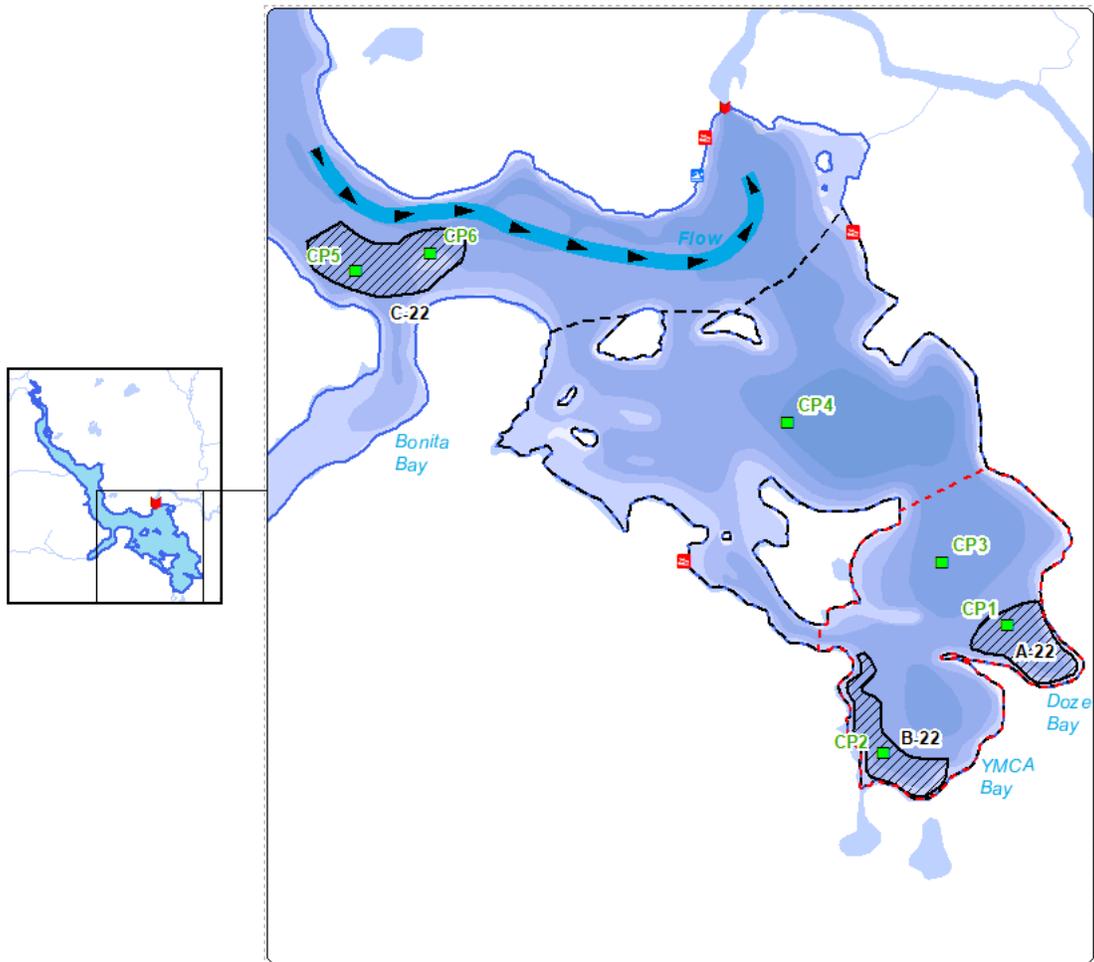


Chute Pond, Oconto County (WBIC:462520)
2022 Herbicide Sample Plan
Onterra, LLC

Chute Pond, located in Oconto County, is an approximately 433-acre flowage that has a maximum depth of 19 feet. Florpyrauxifen-benzyl (commercially as ProcellaCOR™) is proposed to be applied to 22.9 noncontiguous acres throughout three application areas in the lake in early-summer 2022 to control Eurasian watermilfoil. Herbicide concentration sampling will be conducted in order to monitor the herbicide concentrations in the hours and days following the application.

Water samples will need to be collected at the sites and depths listed below. Data are in decimal degrees and the datum is WGS84. Locations of each sampling site are displayed with green squares on the image below.



Chute Pond Herbicide Sample Sites					
Site Label	Site Description	Station ID	Latitude	Longitude	Sample Depth
CP1	Application area A-22	10052461	45.12035	-88.43556	Integrated (0-6 feet)
CP2	Application area B-22	10056217	45.11764	-88.43887	Integrated (0-6 feet)
CP3	AOPI-Focused	10056218	45.12155	-88.43707	Integrated (0-6 feet)
CP4	AOPI-Southern Basin	10056220	45.12451	-88.44147	Integrated (0-6 feet)
CP5	Application area C-22	10056221	45.12782	-88.45400	Integrated (0-6 feet)
CP6	Application area C-22	10056222	45.12814	-88.45180	Integrated (0-6 feet)

Please note that a single sample is to be collected before the treatment as a ‘control’ for the lab analysis. Please collect the pre-treatment sample from site CP1 at a time that is most convenient for the volunteer but as close to the treatment date as possible. After the herbicide application is completed, please note that application area C-22 will follow a separate monitoring timeline than areas A-22 and B-22. In total 34 additional samples will need to be collected at various time intervals throughout the project and are listed in the table below. Sample collection intervals are listed either as Hours After Treatment (HAT) or Days After Treatment (DAT). Direct communication between the water sample collector and the herbicide applicator is necessary to ensure the collector is prepared to begin three hours after treatment is completed. If a sample cannot be collected at the interval listed below, please collect the sample as soon as reasonably possible and record the change.

Southern Basin AOPI				
Sampling Interval Matrix (X indicates sample to be collected)				
Interval	A-22 Site CP1	B-22 Site CP2	AOPI - Focused Site CP3	AOPI - Southern Basin Site CP3
Pre-Treatment	X			
3 HAT	X	X		
9 HAT	X	X	X	X
24 HAT	X	X	X	X
48 HAT	X	X	X	X
4 DAT	X	X	X	X
7 DAT	X	X	X	X
14 DAT			X	X
21 DAT			X	X
<i>HAT = Hours After Treatment, DAT = Days After Treatment</i>				

Application Area C-22		
Sampling Interval Matrix (X indicates sample to be collected)		
Interval	Application Area C-22	
	Site CP5	Site CP6
1 HAT	X	X
2 HAT	X	X
4 HAT	X	X
8 HAT	X	X
<i>HAT = Hours After Treatment, DAT = Days After Treatment</i>		

Sampling Interval for application areas A-22 and B-22

Sampling Interval for application area C-22

All water samples will be collected using a six-foot integrated sampler (Photo 1). A video tutorial demonstrating the proper sample collection methodology is available on Onterra’s YouTube web page: [click here](#)

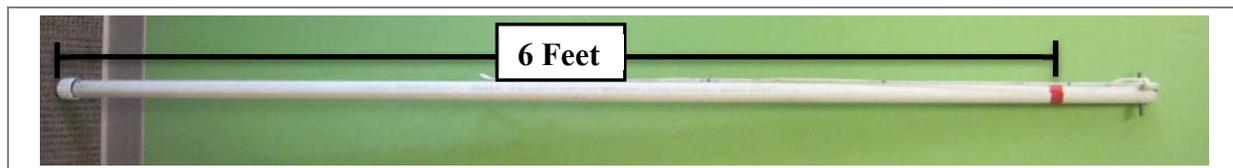


Photo 1. 6-foot Integrated sampling device constructed of PVC tubing.

Due to the extremely low concentrations being measured at the laboratory (<1 part per billion), **it is very important to thoroughly rinse the integrated sampler device and the custom mixing bottle with the water from each sampling site upon arrival at the site.** Water is collected by pushing the integrated sampler straight down to a depth of six feet; or in water shallower than six feet, down to approximately one foot above the bottom sediment. The sampler is brought to the surface and emptied into a customized mixing bottle by pushing open the stop valve at the end of the integrated sampler (Photo 2). Water should be poured from the custom mixing bottle to triple rinse the clear glass bottle. After the clear glass bottle is triple rinsed, it is to be filled for a fourth time with the water from the custom mixing bottle and then carefully poured into the brown glass bottle which has a preservative solution already inside (Photo 3).

Please use a fine-tipped permanent marker to record the date and time the sample is collected on the sticker label of the brown glass bottle. The final sample (in the brown bottle) as well as the emptied clear glass bottle should be carefully placed back within the bubble wrapped pouch to protect from accidental breakage.

While the samples are being collected, they should be kept cold and out of direct sunlight by keeping them in a small cooler on the boat. After collection, all samples should be stored in a refrigerator until shipping.



Photo 2. Emptying the water sample from the integrated sampler device into the custom mixing bottle.



Photo 3. Clear glass mixing bottle and final brown glass bottle.

Onterra will provide all of the necessary supplies to complete the sampling and provide training to the volunteer(s) collecting the samples. Onterra has a supply of handheld GPS units and integrated sampler devices available to loan out for the duration of the sampling upon request. All other materials, including sampling bottles with labels, a customized mixing bottle and necessary paperwork will be provided.

Please fill out the yellow highlighted fields on the Chain of Custody forms including:

- Sampler: (Volunteer Name)
- Client Sample ID: (example: CP1, CP2, CP3, CP4, CP5, or CP6)
- Date sample is collected

When all sampling is complete, the water samples **and** Chain of Custody Datasheets should be shipped by overnight courier to:

EPL Bio Analytical Services
9095 W. Harristown Blvd.
Niantic, IL 62551

Samples should not be shipped on loose ice. Ice packs or frozen water bottles (contained in a zip bag) may be shipped with the samples to keep them cool. Samples should not be shipped on a Friday, but rather refrigerated and shipped on the following Monday.

If you have any questions, please reach out to one of the contacts listed below.

Project specifics, logistics and sampling methods	
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