



Black River Advisory Committee

LoCo 'Yaks | Facilitating Organization

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BRAC QUARTERLY MEETING | Tuesday, November 15, 2022 @ 1:00 PM

Location: Cascade Park Nature Center 387 Furnace Street, Elyria

Minutes

❖ Welcome / Call to Order / Introductions

- Don called the meeting to order at 1:02PM.
 - In attendance: Steve Holland, ODNR Coastal Management*; Max Schaefer, Main Street Lorain*; Lyn Ickes, LCCD; Kelley LCCD; John Sabo, Public Support*; Matt Nahorn, Beaver Creek Watershed*; Diane Nahorn, Beaver Creek Watershed; Chip Wendt, Coldwater Consulting; Kate Golden, City of Lorain*; Duane Cribley, City of Elyria; Jill Lis, LCPH*; Michael Hennessey, US EPA; Hannah Boesinger, Ohio Lake Erie Commission; Don Romancak, LCCD*; Stephanie Koscho, Facilitator; Pamela Davis, NOACA; Amber Bellamy, USF&W. (*voting members)

❖ Fiscal Report

- Stephanie provided the current fiscal report: as of the end of October, we have \$27,337.79 remaining for advertising and travel, but not expecting to spend the travel dollars. Agreement expires March 31st.

❖ Old Business

- Approval of Meeting Minutes 8/03/2022 – Motion to accept by Jill; second by John; all in favor; none opposed; motion carries.

❖ New Business

- Advertising options for LoCoBROh.com
 - LorainCounty.com offered a “helpful” discounted proposal as a Site Sponsor, that is not actually helpful with all this money. We have \$2500 in the category that includes advertising and printing. Don suggested paid Facebook ads – using specifics like geofencing and tracking impressions. Kate recommended WOBL & WEOL. Stephanie wants to plan advertising to be released at different stages through the spring and summer.

- Duane asked about QR codes. Lyn said she has been delayed by Eaton Township Road Crew.
- Stephanie asked Lyn about QR codes at other locations. Kate said “Yes. Anywhere you want.” Parker Marine and LCMP trails were suggested as sites for additional QR locations, also Lakeview, overlook at screening building across the street from City Hall, and French Creek kayak launch area. Maybe also generic ones at marinas and ramps along the river. Kate will reach out to Parkers. Mapping meeting is needed with Lyn and Kate (Stephanee will facilitate).
- QR codes are part of a 4”x4” post. Kate suggested making larger QR signs for river locations that boats may be able to access. Lyn offered several reasons why that may not work but we can discuss it more while mapping.
 - Will follow-up with Lyn – she has a specific advertising plan that needs to be discussed with the Margaret Peak Board, and for scheduling a mapping meeting.

❖ Black River Watershed Project Updates

- County – Don: we’ve basically already discussed it all. (See above.)
- City
 - Kate: \$15 mil GLRI project ceased this year, after seven years. They are currently working on all reports. On GLRI project is still working but that was just awarded about 6 months ago to complete the cap & cover at Rec Site (previously reviewed at the last AOC meeting). The grant is \$750,000 + \$300,000 match from City of Lorain – using Martin’s Run excess soil as the capping material.
 - Chip: Sunset Pier Park – not an AOC project but maybe the committee would be agreeable to helping with conceptualization and public outreach as we go through the process. Kate: City is interested in using Hot Waters and the 2 finger piers to development a park and multi-use area. There is currently a \$5 million brownfield cleanup project at the Pellet Terminal site from the bridge north to but not including the piers. Part of that cleanup involves the installation of utility services for future mixed-use development. City is requesting Coastal Management to fund the design and assessment of park facilities that would sit on those piers. Also looking at boating infrastructure grants to repair and improve the free boat ramps. Will also look in the future for larger federal grants to pay for the park itself, but assistance on outreach and public support from BRAC would be appreciated. Funding has not been secured at this point; we are working on the application for design & assessment = \$150,000 +

\$150,000 City funds. [Don then asks if this is an “environmental assessment”.] A Phase 1 & 2 have been completed and no brownfield work is required. Assessment is more about public-use feasibility and structural integrity for what is planned. The brownfield project also includes additional roadway to be added as an extension of Broadway as well as additional parking for boaters just east of the water treatment plant at Hot Waters. Mayor Bradley envisions a safe, open, publicly-accessible greenspace, park, and mixed-use facilities to create a better connection between the city, lake, and river.

- Michael asked about any other community projects that may be looking for funding in the future should he become aware of an opportunity that may be appropriate. – Kate: Obviously Sunset Pier Park; Lakeview Beach’s poor water quality. Michael is interested in exploring ideas to expand public access along the river.
- Michael next asked if there are any other plans being made to bring people to the river and newly restored areas (like the app will do). – Kate: Meijer retail store has a beach rover drone program. LCPH/Jill met with Meijer Council of the Great Lakes Region and LCMP via Zoom to get one in Lorain. Council buys the rover, however they also want community partnerships and a show of commitment to the program. Program also provides a grant for an employee to complete waste collection & characterization. – Don: North Ridgeville is creating a new park along French Creek. The project is not an AOC project but is within the AOC. They are already moving along but there are still a few components that have not been funded yet.

❖ Ohio AOC Program Updates & Announcements

- BUI #4

- Hannah’s presentation (PowerPoint attached to minutes)
- The committee will review the presented data and reconvene via Zoom in about 3 weeks to discuss the DELT hotspot at river mile 6.1 and whether or not more data needs to be collected before requesting removal.

❖ Federal AOC Program Updates & Announcements

- Michael: Thinks it is good to have some shovel-ready ideas that may potentially benefit the AOC as and after we delist.
- Michael is working on environmental justice avenues where the US EPA could help. The committee strongly suggested the railroad and invasives and abandoned properties used for illegal dumping sites.

- Michael is also looking for AOC success stories, case studies, etc. of all types but especially in the public outreach, training, education areas to highlight in an EJ Resource Library that is currently in development.

❖ Announcements

- Next meeting: Tuesday, Jan. 31, 2023. Jill will inquire about hosting at LCPH.
 - Max sent a video of probably 500+ fish at the Shipyards along the docks in front of Monkey Island Coffee.
 - The Nahorns have secured another 5.27 acres to their conserved land with the Western Reserve Land Conservancy along Beaver Creek. They now have more than 20 acres of wetlands, brush, and floodplain.
 - Diane discussed the rampant phragmites in conserved areas such as their land and the metro parks. Michael took note to discuss with his office.
 - Pam discussed her participation with Lake Erie Volunteer Science Network (sampling by volunteer scientists who input data into the Waterkeeper app.) and the Cleveland Water Alliance will be using that data to compile an annual report and standards to complete a Save the Lake Report. In case the BRAC continues after this grant and after delisting, CWA would be interested in discussing committee participation.
 - Stephanie notified the committee that LY will not continue as facilitator when this grant cycle is complete. LY is willing to be a committee member.
- ❖ Adjournment – Motion to adjourn by Jill; second by Kate; all in favor; none opposed; motion carries. Meeting adjourned at 2:54PM.

UPDATES:

1. After Stephanie's call with Cherie about resigning as facilitator, it was decided that instead we will extend the grant by 6 months in order to spend the funds wisely and appropriately on advertising the app. With this extension, Stephanie will take on fewer hours per month, which was the intention with the resignation, and will have the opportunity to complete all deliverables during spring and summer as originally intended but delayed by app and QR code development.
2. After discussing at length on Dec. 13th, the committee decided to give approval on the presented data and continue moving forward with the removal process for BUI #4. (Thanks for all your hard work, Hannah. The BRAC appreciates you.)

Evaluation of BUI 4: Fish Tumors or Other Deformities in the Black River AOC



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Black River AOC BUIs

- *Restrictions on Fish and Wildlife Consumption - **Removed 2017***
- *Degradation of Fish and Wildlife Populations*
- *Fish Tumors or Other Deformities – **Under Evaluation***
- *Degradation of Benthos*
- *Restrictions on Navigational Dredging – **Removed 2022***
- *Eutrophication or Undesirable Algae - **Removed 2017***
- *Beach Closings – **Under Evaluation***
- *Degradation of Aesthetics - **Removed 2021***
- *Loss of Fish Habitat*

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Causes of Fish Deformities and Tumors

DELTs = Deformities, eroded fins, lesions, and tumors

DELTs: “Caused or exacerbated by environmental factors and often indicate the presence of multiple sublethal stressors”

- Water quality impairments
- Poor habitat
- Injuries
- Infections

Tumors: “High occurrences of both external and internal (liver) tumors in fish have been associated with carcinogens in sediment and water”

- Polycyclic Aromatic Hydrocarbons (PAHs)
- Polychlorinated biphenyls (PCBs)
- Heavy metals

DELTs and tumors can occur naturally on fish

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BUI 4 – Evaluation Process

1. Compile the most current fish tumor and DELTs data within the AOC
 - 2012-2022
2. Average DELT frequencies across assessment units (AUs)
3. Compare AU frequencies to State of Ohio BUI removal criteria
4. Outline potential next steps



Figure 1. Blazer, 2014

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State of Ohio Restoration Targets

The average DELT values within the assessment unit do not exceed either:

- DELT values of 3% (lacustrine and boat sites), or
- DELT values 1.3% (wading and headwater sites);

(The whole assessment unit is impaired if results from a single sample exceed a level of two times the applicable target value. This may be indicative of a hotspot being present.)

AND

Where brown bullheads are present, the liver tumor prevalence rate in fish 3 years or older should not exceed 5%

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Data Sources

- DELTs – Electrofishing assessments conducted by:
 - Ohio EPA
 - MBI
 - USFWS
- Brown Bullhead Tumors
 - USFWS

AOC Stream Reaches Where Brown Bullhead are Likely to be Present	
Maumee AOC	Mainstem/Swan Creek
	Ottawa River
	Duck/Otter Creek
	Wolf Creek
	Cedar Creek
	Turtle Creek
	Toussaint/Packer Creek
Black River AOC	Upper Black River
	Lower Black River
Cuyahoga River AOC	Mainstem/Marina
	Old Channel
	Euclid Creek
Ashtabula River AOC	Mainstem

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Fish Tumors

Black River AOC Brown Bullhead Liver Tumor Data					
Date	Sample Size	Mean Length	Mean Age (yr. \pm std. dev.)	Liver tumors Count	Liver Neoplasms
5/4/1998	45	-	4.9 \pm 1.6	4	8.9%
8/15/2012; 5/21/2013	70	338.6 \pm 5.4	5.8 \pm 0.3	8	11.4%
5/13- 5/14/2021	39	315.8 \pm 42.3	4.6 \pm 1.4	0	0.0%

2021 frequency meets restoration target!

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DELTs Evaluation Overview

2 AUs

- Black River
- French Creek

Black River

- 36 Boat/Lacustrary sites - meets 3% target but impaired due to hotspot
- 2 Wading sites – meets target

French Creek

- 10 Wading/Headwater sites – meets target
- 1 Boat site – meets target

Black River AOC DELT Frequencies			
AU	Boat/Lac.	Headwater/ Wading	Status
Target	3.0%	1.3%	-
Black River	1.3%	0.5%	Impaired (Hotspot)
French Creek	1.0%	0.3%	Not Impaired

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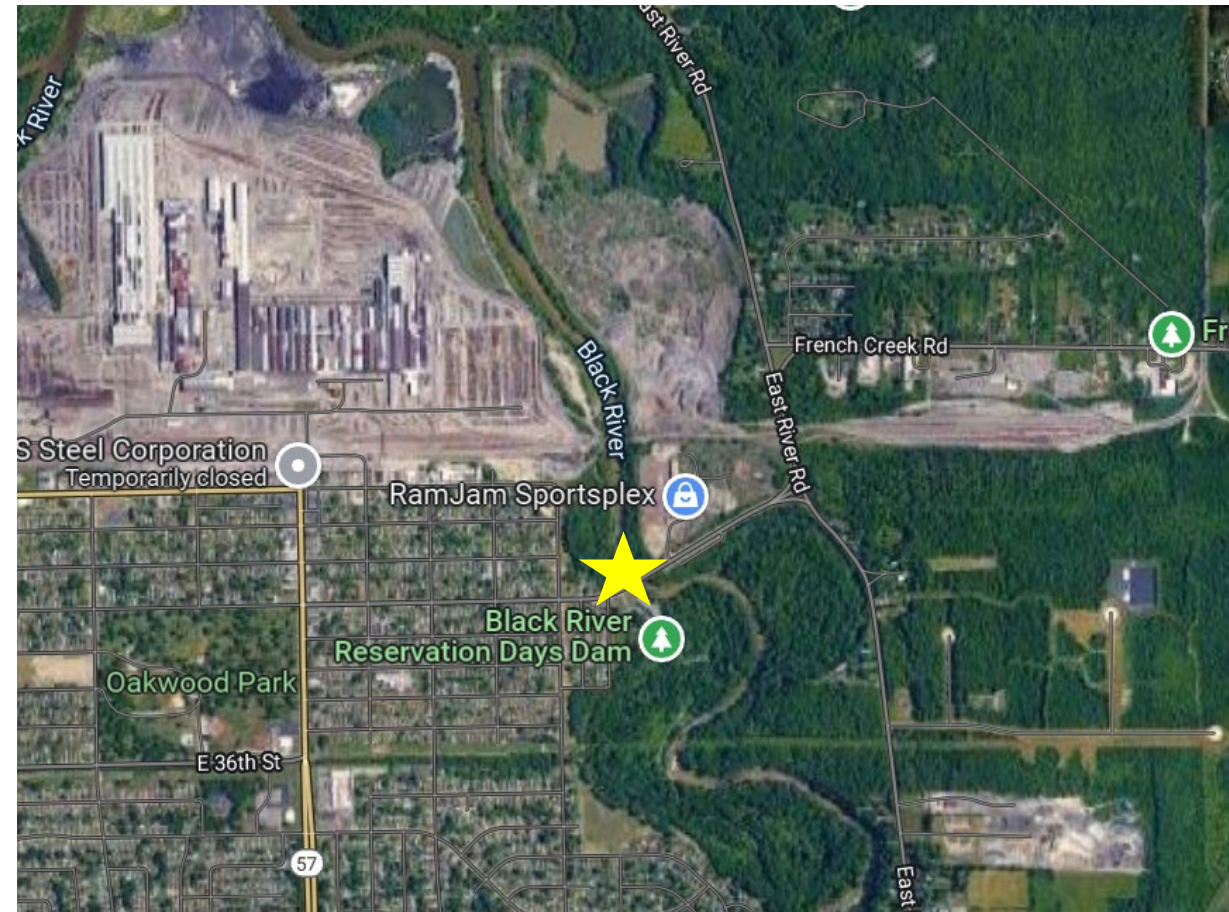
DELTs Continued

Black River AU is impaired due to hotspot at River Mile 6.1

- 1 pass by USFWS in 2021
- 35 fish captured, 4 DELTs observed = 11.4% frequency
- Low sample size may be inflating DELT frequency

River Mile 6.1

- Downstream of Black River Reservation
- Habitat and riparian zone are unlikely to be the issue
- NPDES permit holders up and downstream
 - Minimal discharge
 - No significant effluent-based violations
- No obvious cause of DELTs based on preliminary investigation



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Recommendations

Proceed with the removal of BUI 4 pending Ohio EPA technical review

- Bullhead tumors and French Creek are meeting restoration targets
- Make justifications for hotspot in Black River
 - Low sample size may be inflating frequency
 - No obvious cause of DELTs

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BUI Removal Process & Timeline

- Assembly of Draft BUI Removal Document
- Internal Agency Review
- GLNPO Technical Resource Lead (TRL) Review
- Black River AOC Advisory Committee Review
 - 14-day review
- Update Draft Document from TRL/Advisory Committee review

Public Review

- 14- or 30-day Public Comment Period + Public Meeting as determined
- Final Removal Package Compiled
- Request letter of support from Advisory Committee
- OLEC submits to USEPA for concurrence approval.

State of Ohio Restoration Target

The average DELT values within the assessment unit do not exceed either:

- DELT values of 3% (lacustrary and boat sites), or
- DELT values 1.3% (wading and headwater sites);

AND

Where brown bullheads are present, the liver tumor prevalence rate in fish 3 years or older (i.e., neoplastic or preneoplastic liver tumors) should not exceed 5%.

Notes

- Two studies are currently underway to determine the background rates for tumor and deformity incidence rates in Ohio AOCs. Once the studies are complete, Ohio EPA will review the results and determine if the current target should be revised.
- Assessment units for DELTs are the 12-digit HU, Large River Assessment Unit (LRAU) or other agreed upon stream segment or subwatershed.
- Brown bullhead liver tumor prevalence rates are evaluated in specified stream reaches within the AOC where populations are likely to be present.

Potential Data Sources

- Ohio EPA biological surveys
- Other regional, state/federal or local fish studies

Ohio EPA recommends the following guidelines for averaging data:

1. If multiple samples were collected at an individual site during a single year or field season, the results should be evaluated to determine an average for each individual site. Otherwise, use the most current data available for each site, collected within the last 10 years
2. The averages for individual sites (as calculated in #1) should be combined with other sites within the same assessment unit to determine the overall average value for the assessment unit. The overall assessment unit average can be based on data from different years.

If results from any single sample for a site exceeds a level of 2 times the applicable target value, then the whole assessment unit is considered impaired. This condition may be indicative of a hotspot being present and additional investigation and, potentially, restoration actions may be needed.

Black River AOC Brown Bullhead Liver Tumor Data					
Date	Sample Size	Mean Length	Mean Age (yr. \pm std. dev.)	Liver tumors Count	Liver Neoplasms
5/4/1998	45	-	4.9 \pm 1.6	4	8.9%
8/15/2012; 5/21/2013	70	338.6 \pm 5.4	5.8 \pm 0.3	8	11.4%
5/13- 5/14/2021	39	315.8 \pm 42.3	4.6 \pm 1.4	0	0.0%

French Creek DELT Anomaly by River Mile							
River Mile	Year Assessed	Pass	Collector	Number of fish assessed	DELTs Observed	DELT Frequency	Seasonal Average
10.41	2012	1	Ohio EPA	275	0	0.0%	0.0%
9.02	2012	1	Ohio EPA	114	0	0.0%	0.0%
6.9	2017	1	FWS	305	0	0.0%	0.0%
6.1	2017	1	FWS	273	0	0.0%	0.0%
	2017	2	FWS	433	0	0.0%	
5.5	2017	1	FWS	425	0	0.0%	0.0%
	2017	2	FWS	382	0	0.0%	
4.5	2017	1	FWS	314	0	0.0%	0.0%
	2017	2	FWS	809	0	0.0%	
4	2017	1	FWS	376	6	1.6%	2.2%
	2017	2	FWS	184	5	2.7%	
3.2	2017	1	FWS	305	1	0.3%	0.8%
	2017	2	FWS	251	3	1.2%	
2.5	2017	1	FWS	380	1	0.3%	0.1%
	2017	2	FWS	355	0	0.0%	
0.54	2017	1	FWS	267	0	0.0%	0.4%
	2017	2	FWS	141	1	0.7%	
0.1*	2015	1	MBI	44	0	0.0%	1.0%
	2015	2	MBI	86	0	0.0%	
	2015	3	MBI	63	2	3.1%	
Total Headwater/Wading				5589	17		0.3%
Total Lacustary/Boat				193	2		1.03%

* = Lacustary

Black River DELT Anomaly by River Mile						
River Mile	Date Assessed	Collector	Number of fish assessed	DELTs Observed	DELT Frequency	Seasonal Average
15.4	7/22/2015	MBI	133	5	3.8%	5.7%
	8/26/2015	MBI	118	9	7.6%	
14.95	9/1/2015*	Ohio EPA	1103	0	0.0%	0.1%
	8/6/2015*	Ohio EPA	604	1	0.2%	
11.6	7/22/2015*	MBI	355	5	1.4%	1.0%
	8/24/2015*	MBI	618	4	0.6%	
11.5	7/10/2012	Ohio EPA	162	0	0.0%	0.0%
	9/12/2012	Ohio EPA	335	0	0.0%	
10.85	7/22/2015	MBI	200	9	4.5%	2.9%
	8/28/2015	MBI	381	5	1.3%	
10.7	7/10/2012	Ohio EPA	323	0	0.0%	0.0%
	9/12/2012	Ohio EPA	468	0	0.0%	
9.9	7/21/2015	MBI	109	3	2.8%	2.5%
	8/25/2015	MBI	275	6	2.2%	
9.8	7/10/2012	Ohio EPA	239	0	0.0%	0.0%
	9/12/2012	Ohio EPA	390	0	0.0%	
8.7	7/23/2015	MBI	287	0	0.0%	0.1%
	8/25/2015	MBI	442	1	0.2%	
8.35	7/11/2012	Ohio EPA	332	0	0.0%	0.4%
	9/13/2012	Ohio EPA	335	3	0.9%	
7.7	7/23/2015	MBI	111	0	0.0%	0.1%
	8/25/2015	MBI	621	1	0.2%	
Lacustrary Upper Reach						
6.2	7/23/2015	MBI	46	0	0.0%	0.8%
	9/1/2015	MBI	195	3	1.5%	
6.1	8/5/2021	USFW	35	4	11.4%	11.4%
5.5	8/5/2021	USFW	40	0	0.0%	0.0%
5.4	6/20/2012	Ohio EPA	135	1	0.7%	0.6%
	7/31/2012	Ohio EPA	251	1	0.4%	
5.2	8/21/2020	MBI	336	0	0.0%	0.2%
	10/6/2020	MBI	224	1	0.4%	
5	8/5/2021	USFW	84	2	2.4%	2.4%
4.9	8/21/2020	MBI	394	0	0.0%	0.5%
	10/6/2020	MBI	188	2	1.1%	
4.5	8/5/2021	USFW	120	4	3.3%	3.3%
4.4	8/21/2020	MBI	106	0	0.0%	1.1%
	10/6/2020	MBI	100	2	2.1%	
4.3	8/21/2020	MBI	330	0	0.0%	0.2%
	10/7/2020	MBI	356	1	0.3%	
4.1	8/22/2020	MBI	334	0	0.0%	0.0%
	10/7/2020	MBI	250	0	0.0%	

4	8/5/2021	USFW	59	2	3.4%	3.4%
3.91	8/22/2020	MBI	160	0	0.0%	0.0%
	10/7/2020	MBI	199	0	0.0%	
3.9	8/22/2020	MBI	278	0	0.0%	0.0%
	10/7/2020	MBI	371	0	0.0%	
3.8	8/22/2020	MBI	215	0	0.0%	0.0%
	10/7/2020	MBI	281	0	0.0%	
3.52	8/20/2020	MBI	457	4	0.9%	0.5%
	10/9/2020	MBI	480	1	0.2%	
3.2	8/6/2021	USFW	148	3	2.0%	2.0%
3	8/20/2020	MBI	375	3	0.8%	0.7%
	10/9/2020	MBI	747	4	0.5%	
2.5	8/6/2021	USFW	145	1	0.7%	0.7%
Lacustuary Lower Reach						
2.3	7/28/2020	MBI	155	3	2.0%	1.3%
	10/9/2020	MBI	168	1	0.6%	
2	7/28/2020	MBI	149	0	0.0%	0.3%
	10/9/2020	MBI	209	1	0.5%	
1.7	7/27/2020	MBI	164	1	0.7%	0.4%
	10/8/2020	MBI	430	0	0.0%	
1.5	7/28/2020	MBI	371	6	1.6%	1.0%
	10/8/2020	MBI	468	2	0.4%	
0.6	7/28/2020	MBI	363	2	0.6%	0.8%
	10/8/2020	MBI	219	2	1.0%	
0.54	8/6/2021	USFW	202	3	1.5%	1.5%
0.4	7/28/2020	MBI	69	1	1.7%	0.9%
	10/8/2020	MBI	48	0	0.0%	
0.1	8/20/2020	MBI	91	0	0.0%	0.0%
	10/8/2020	MBI	114	0	0.0%	
Total Boat and Lacustuary			15920	103		1.3%
Total Wading			2680	10		0.5%

* = wading site