

**New NY Bridge
Sturgeon Acoustic Telemetry
60-day Summary**



Deployment 4 Summary

Period: September 16 to October 13, 2013

Regulatory Requirements

Condition 40A of the NYSDEC Permit ID 3-9903-00043/00012 requires that the Project install stationary receivers capable of detecting sonic tags in the vicinity of any Authorized Activities. Data downloads shall occur every 60 days at minimum. "Following each data download, a report shall be submitted with data files, and a summary of fish present and/or moving through the construction zone."

The Endangered Species Act Section 7 Consultation Biological Opinion dated April 10, 2013, Term and Condition #10 to implement Reasonable and Prudent Measure #4, requires that "Information collected from any stationary receivers must be downloaded at least every 60 days. Preliminary reports containing information on the number of tagged sturgeon detected must be provided to NMFS on a regular basis, but no less frequently than every 60 days. If reports cannot be provided on that frequency, FHWA must provide an explanation to NMFS within the 60 day period and provide the report as soon as possible."

The following is the summary of detections between September 16, 2013 and October 13, 2013. As discussed with NMFS and NYSDEC, the formal submittal of this information was delayed until permissions and tag information were obtained.

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Equipment and Location

Station	Deployment Location		Deployment Date and Time		Equipment Information			
	Latitude	Longitude	Date	Time	Vemco Receiver	Sync Tag*	Temp Tag	Lotek Receiver
St01	41.07453	-73.91001	16-Sep-13	09:57:55am	122371	65006	--	--
St02	41.07484	-73.89884	16-Sep-13	10:41:19am	122372	65011	--	--
St03	41.06602	-73.91066	16-Sep-13	11:10:12am	122373	65008	--	--
St04	41.06612	-73.89945	16-Sep-13	12:26:49pm	122888	65010	--	--
St05**	41.07371	-73.89345	7-Aug-13	07:45:36am	122891	65002	--	--
St06	41.07457	-73.88832	18-Sep-13	09:25:45am	122892	65014	--	265126
St07	41.07842	-73.87446	18-Sep-13	09:14:15am	122887	65012	--	265127
St08	41.07285	-73.87314	17-Sep-13	03:02:32pm	122890	65013	--	--
St09	41.06911	-73.89208	16-Sep-13	01:16:50pm	122893	65001	--	--
St10	41.06469	-73.89198	18-Sep-13	09:38:32am	122894	65003	--	265121
St11	41.06664	-73.87346	18-Sep-13	09:47:41am	122889	65015	--	265119
St12	41.07640	-73.88446	17-Sep-13	05:56:11pm	122884	65016	--	--
St13	41.07600	-73.88075	17-Sep-13	05:50:20pm	122885	65017	--	--
St14	41.07313	-73.88555	18-Sep-13	12:33:58pm	122886	65019	13339	--
St15	41.07335	-73.88223	18-Sep-13	12:38:43pm	122883	65018	--	--
St16***	41.07218	-73.87873	1-Jul-13	01:40:51pm	122879	65020	--	--
St17	41.06901	-73.88762	18-Sep-13	12:18:06pm	122881	65021	--	--
St18	41.06887	-73.88336	17-Sep-13	12:40:48pm	122880	65022	--	--
St19	41.06878	-73.87791	18-Sep-13	11:55:36am	122876	65023	--	--
St20**	41.06649	-73.88065	10-Aug-13	04:45:18am	122882	65005	13338	--
St21	41.06620	-73.88510	18-Sep-13	12:06:37pm	122877	65004	--	--
St22	41.06572	-73.87705	18-Sep-13	11:41:00am	122878	65007	--	--
St23	41.07371	-73.91338	16-Sep-13	09:33:21am	122871	65024	--	--
St24	41.07333	-73.90441	16-Sep-13	02:09:53pm	122872	65027	--	--
St25	41.06836	-73.90536	17-Sep-13	11:27:38am	122875	65026	--	--
St26	41.06825	-73.89626	16-Sep-13	12:52:25pm	122873	65025	--	--
St27	41.07568	-73.91229	4-Oct-13	2:11:00pm	123565	26747	--	--
St28	41.07068	-73.91365	7-Oct-13	9:55:00am	123568	26743	--	--
St29	41.07028	-73.90932	7-Oct-13	9:40:00am	123566	26746	--	--
St30	41.07030	-73.91383	8-Oct-13	2:43:00pm	123567	26741	--	--
St31	41.06993	-73.90967	8-Oct-13	3:00:00pm	123569	26739	--	--
St32	41.07573	-73.89326	4-Oct-13	2:24:00pm	123570	26745	--	--

Vemco Test Tag = A69-1601-28098; Lotek Test Tag = 1

*The prefix for all sync tag codes is "A69-1601-" and the prefix for temperature tags is "A69-9002-"
 **Stations 5 and 20 were not able to be recovered with grappling gear during this download effort
 *** Station 16 was unable to be retrieved due to the presence of a barge over top of its position

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Numbers of Fish Detected by Species

Species	Number Detected
Atlantic sturgeon	■
Shortnose sturgeon	5
American shad	--
Blueback herring	--
Species unknown	28
Total	■

Summary does not include Tag IDs with fewer than three detections. Fish tagged with Lotek dual-mode tags that were detected on both Vemco and Lotek receivers are counted once.

False detections (i.e. detections of transmitter codes that aren't actually present) are inherent in all telemetry systems. Vemco outlines a methodology to filter the data further for Tag IDs that may not be legitimate fish detections (VEMCO Application Note DOC-004691 2012). This methodology involves filtering based on intervals between successive detections, the programmed average transmission rate of the tags, and anticipated maximum residency.

At present, all of the information is not available to accurately conduct this analysis. However, Tag IDs with only a single detection are very likely false detections. Additionally, some Tag IDs with multiple detections can also be false detections. While VEMCO is currently developing software to conduct this filtering for false detections, all data will be further analyzed in the quarterly reports for Tag IDs that have multiple detections but may not be legitimate fish detections.

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Shortnose sturgeon

<u>Vemco Tag ID</u>	<u>Lotek Tag ID</u>
A69-1303-10475	10475
A69-1303-10774	10774
A69-1303-10805	10797
A69-1303-10810	10805
	10810

* Shaded Tag IDs were false detections.

