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The Dow Chemical Company  
Midland, MI 48674

August 6, 2010

Ms. Mary Logan  
Remediation Project Manager  
U.S. Environmental Protection Agency, Region 5  
77 West Jackson  
Chicago, IL 60604

**Re: Sampling Work Plan Reach J Pilot Cap Area-Settlement Agreement No. V-W-10-C-942 for The Tittabawassee River/Saginaw River & Bay Site  
Dow Submittal Number 2010-050**

Ms. Logan:

Attached please find the Work Plan for the Reach J Pilot Cap Area. The Work Plan is being submitted under AOC CERCLA Docket No. V-W-10-C-942 and Appendix A, Statement of Work Schedule. Please feel free to contact me with any questions or concerns.

Sincerely,  
The Dow Chemical Company

A handwritten signature in black ink that reads "Todd Konechne".

Todd Konechne  
Project Coordinator

cc: Al Taylor, MDNRE  
Diane Russell, U.S. EPA  
Joseph Haas, U.S. Fish and Wildlife  
Steve Lucas, Dow  
Peter Wright, Dow  
Greg Cochran, Dow

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**Sampling Work Plan**  
**Reach J Pilot Cap Area**  
**The Tittabawassee River/Saginaw River & Bay Site**

Prepared by:  
**The Dow Chemical Company**

Date:  
**August 6, 2010**  
Dow Submittal Number 2010.050  
Revision 0

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## 1 Introduction

This Work Plan describes sampling to be conducted within select areas within Reach J of the Tittabawassee River that are targeted for capping as part of a pilot study, as described in the Reach J Capping Pilot Study Work Plan, submitted by Dow on July 16, 2010 pursuant to the Administration Order on Consent (AOC) Docket No. V-W-10-C-942 and Appendix A, Statement of Work Schedule. Specifically, this Work Plan describes sampling at the following locations:

- Northern capping area surrounding existing sample location 189+50-IC35
- Southern capping area surrounding existing sample location 195+00-IC37

## 2 Sampling Objectives

The objective of the sampling program is to obtain additional sediment data to characterize dioxin and furan toxicity equivalent (TEQ) levels within the proposed Reach J capping areas (see Figure 1). To accomplish this objective, surface sediment samples will be collected, composited for each capping area, and analyzed for TEQ levels. For this program, surface sediments are defined as those in the top six inches of the river bed. This sample depth is consistent with historical sediment samples from the river. Compositing of discrete surface sediment samples from each sampling location will be performed to provide a more representative estimate of the TEQ levels within the capping areas.

## 3 Sediment Sampling

Two capping areas were proposed in the Reach J Capping Pilot Study Work Plan. Five surface samples (0 to 6 inches) will be collected from each capping area. One composite sample for each capping area will be created from the five cores and submitted for TEQ analysis. Sample locations will be spaced evenly throughout each area (e.g. oriented similar to five points of a die) to provide representative spatial coverage of each area to be capped. Sampling locations for each of these cap areas are depicted in Figures 2 through 3. The number of locations within each of the Reach J pilot cap areas is summarized below.

- Northern capping area (RJ-189+50): 5 discrete locations composited into 1 sample
- Southern capping area (RJ-195+00): 5 discrete locations composited into 1 sample

Sampling techniques and analytical methods to be employed during this sampling will be consistent with the Tittabawassee River/Saginaw River/Saginaw Bay Quality Assurance Project Plan (March 2010, as amended).

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## **4 Schedule**

It is anticipated that the Reach J sediment sampling activities will be performed the week of August 9 to 13, 2010, subject to approval of this Work Plan. Laboratory analyses of the samples will be completed within four weeks of sample collection.

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## **Figures**

Figure 1: Reach J Pilot Cap Areas

Figure 2: Sampling Locations - Reach J Pilot Cap RJ-189+50

Figure 3: Sampling Locations - Reach J Pilot Cap RJ-195+00



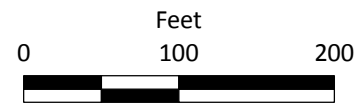
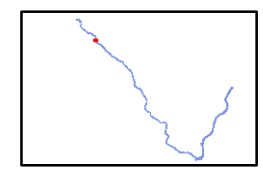
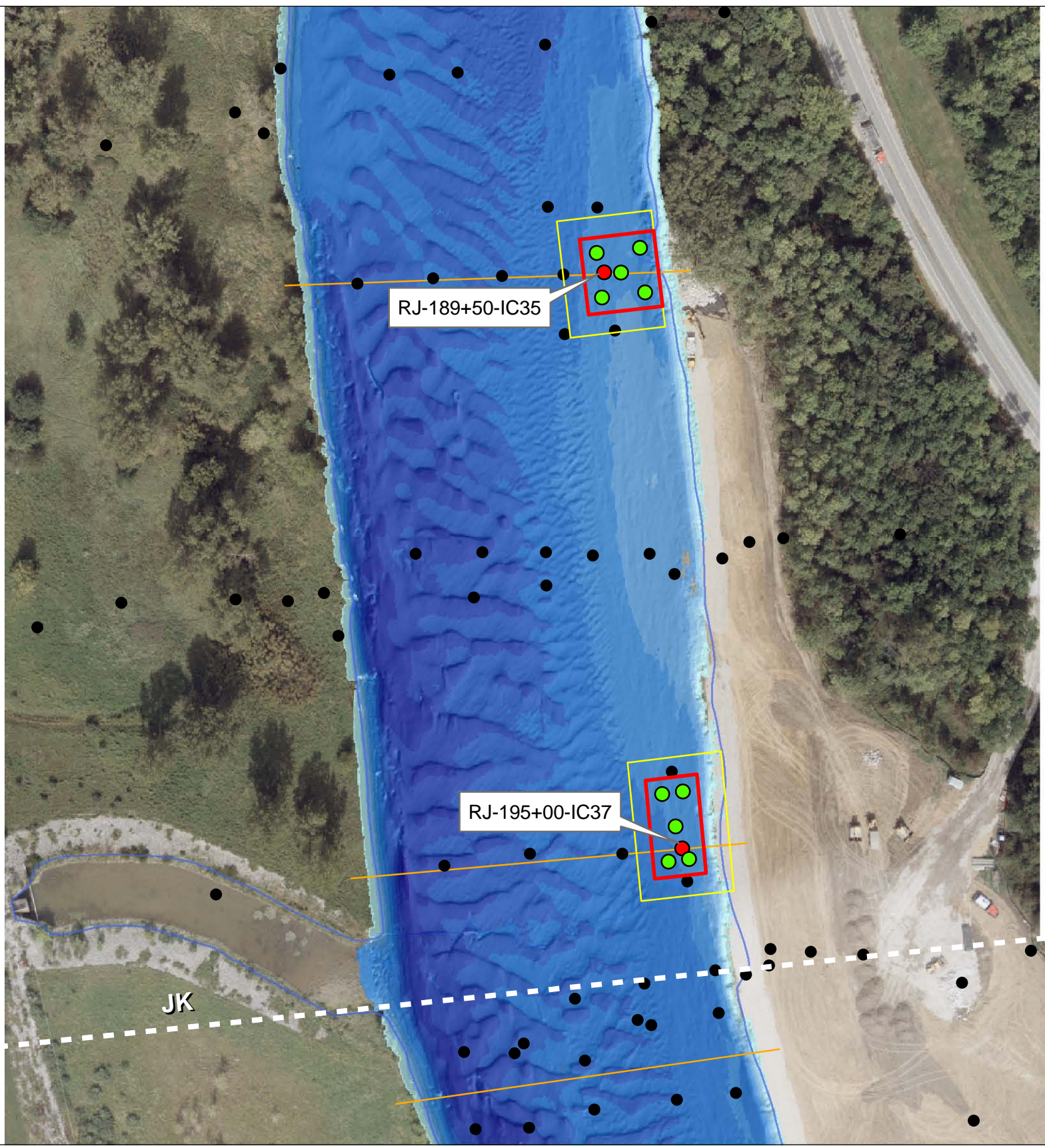
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**LEGEND**

- Pre-Construction Sample Locations
- Pilot Cap Areas
- Survey Areas
- Sample Locations
- Bed Pin Transects
- Shoreline

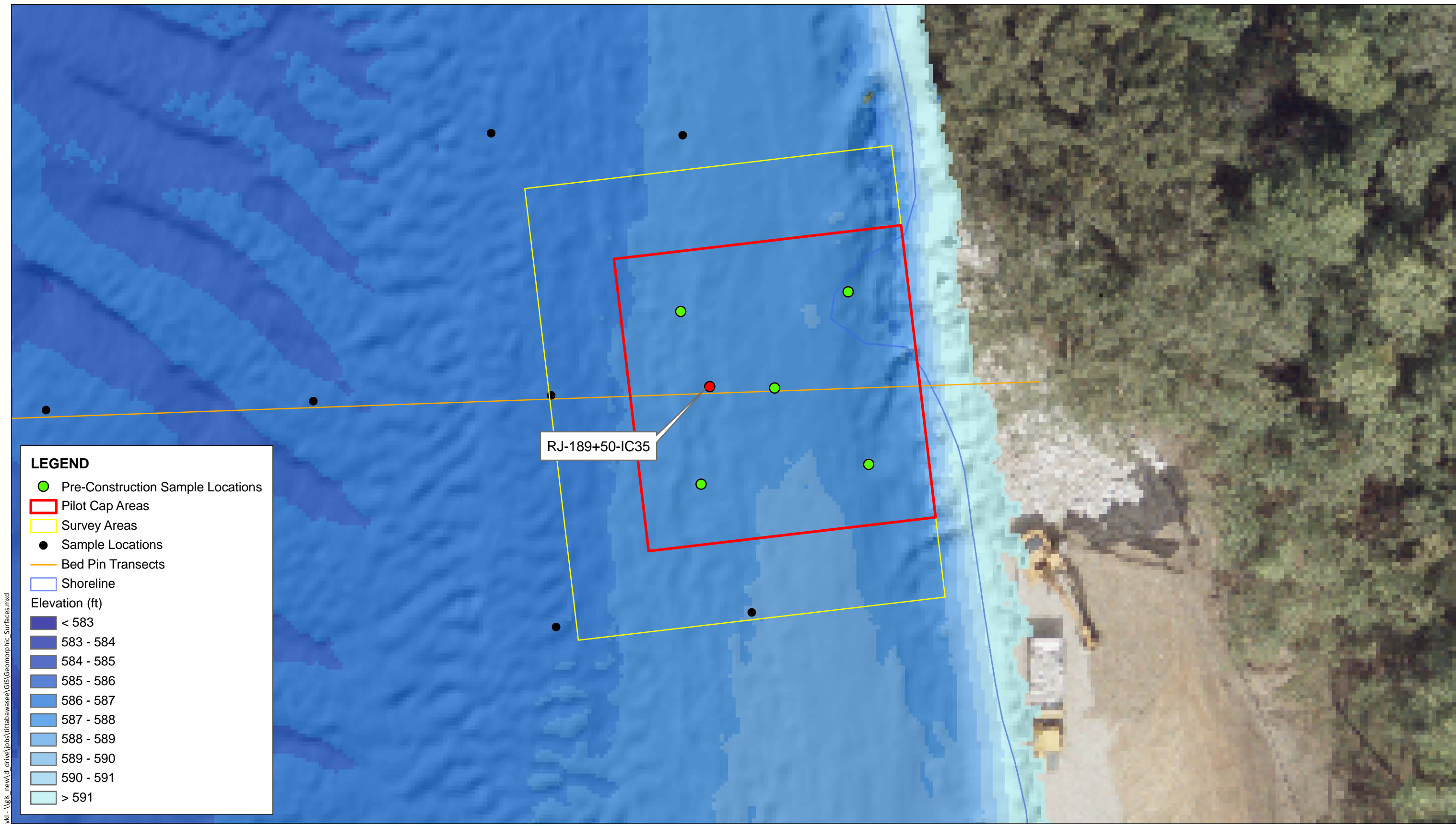
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**Figure 1**  
Reach J  
Reach J Pilot Cap Areas  
Tittabawasse River





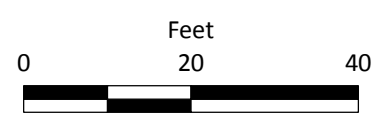
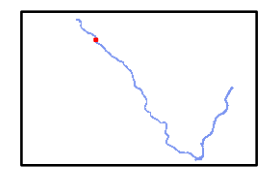
**LEGEND**

- Pre-Construction Sample Locations
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Elevation (ft)

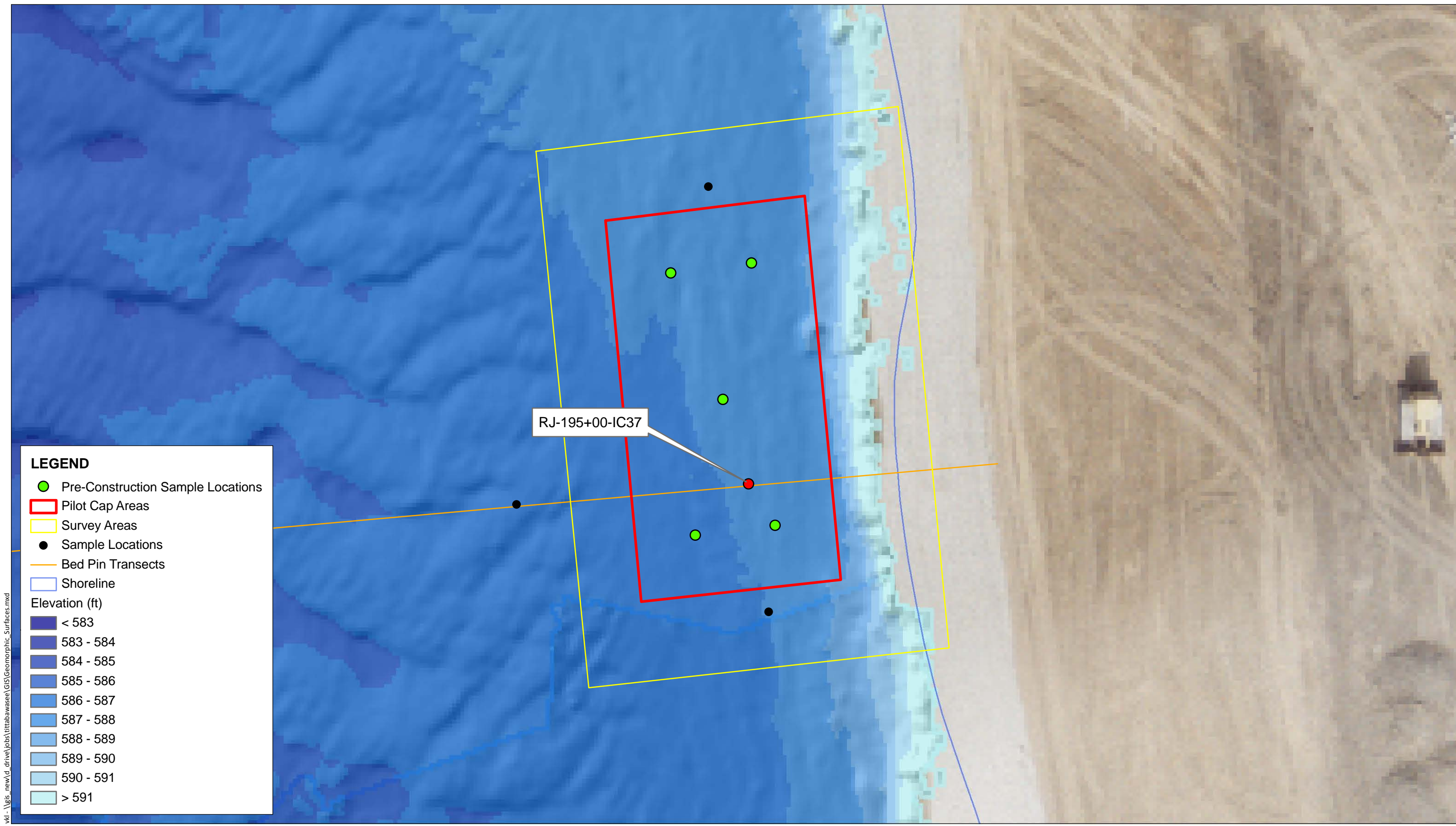
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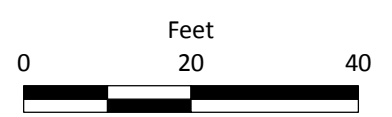
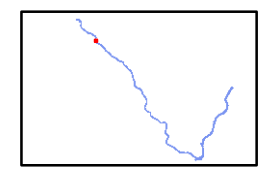


**Figure 2**  
 Reach J  
 Sampling Locations - Reach J Pilot Cap RJ-189+50  
 Tittabawassee River





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**Figure 3**  
 Reach J  
 Sampling Locations - Reach J Pilot Cap RJ-195+00  
 Tittabawassee River