

US EPA ARCHIVE DOCUMENT

Meeting Discussion Topics

Ceresco Dam Impoundment

- 2011 Fall Submerged Oil Conditions
- 2012 Spring Submerged Oil Conditions
- 2012 Late Summer Submerged Oil Conditions
- NEBA Results
- Impacted Heavy & Moderate Areas & Volumes
- Submerged Oil Recovery Options
- Schedule & Logistical Considerations

Mill Ponds

- 2011 Fall Submerged Oil Conditions
- 2012 Spring Submerged Oil Conditions
- 2012 Late Summer Submerged Oil Conditions
- NEBA Results
- Impacted Heavy & Moderate Areas & Volumes
- Submerged Oil Recovery Options
- Schedule & Logistical Considerations

Morrow Lake Delta

- 2011 Fall Submerged Oil Conditions
- 2012 Spring Submerged Oil Conditions
- 2012 Summer Submerged Oil Monitoring Conditions
- NEBA Results
- Impacted Heavy & Moderate Areas & Volumes
- Submerged Oil Recovery Options
- Schedule & Logistical Considerations

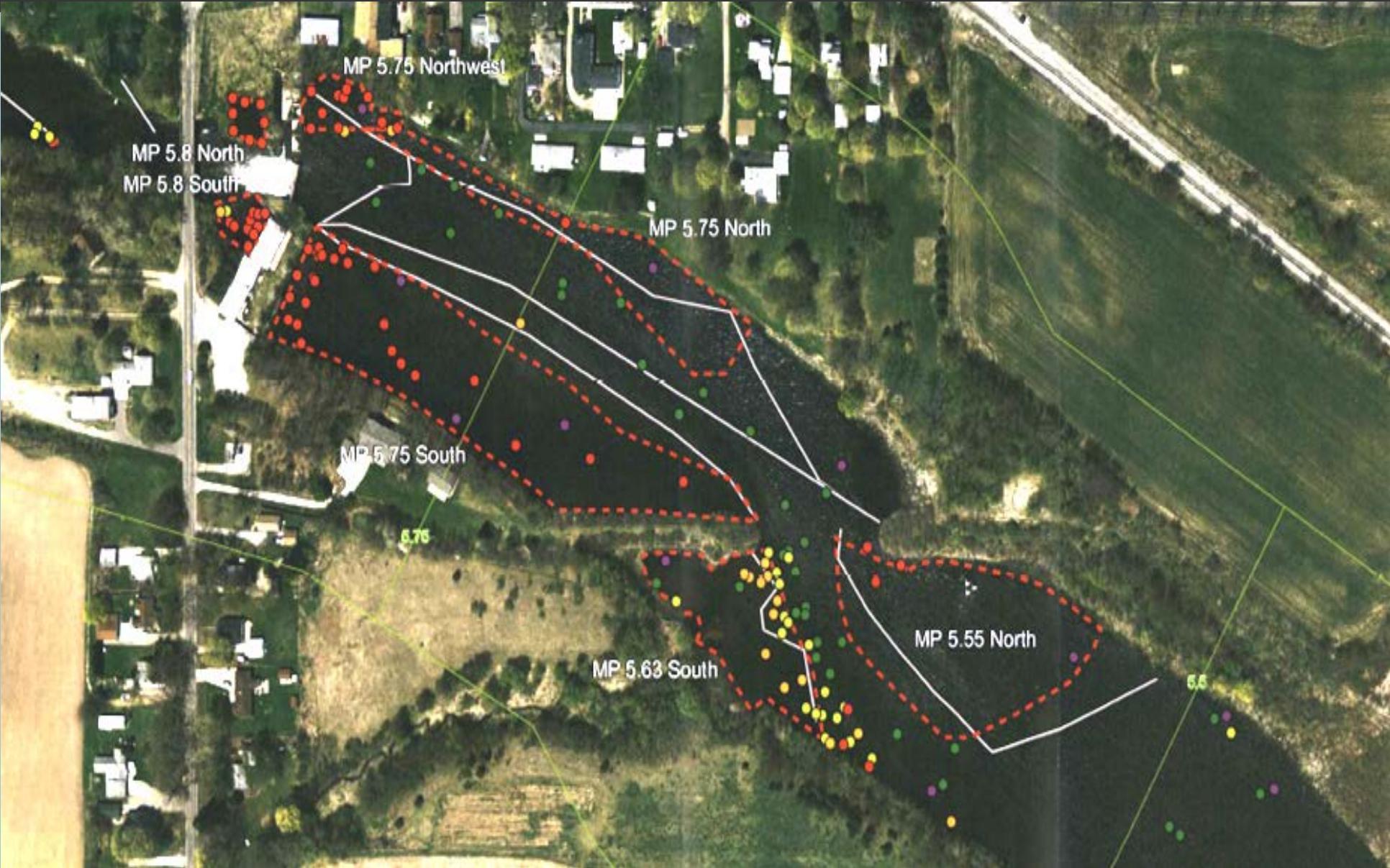


Ceresco Dam Sub Oil Conditions





Ceresco Dam Conditions Prior to Fall 2010 Dredging



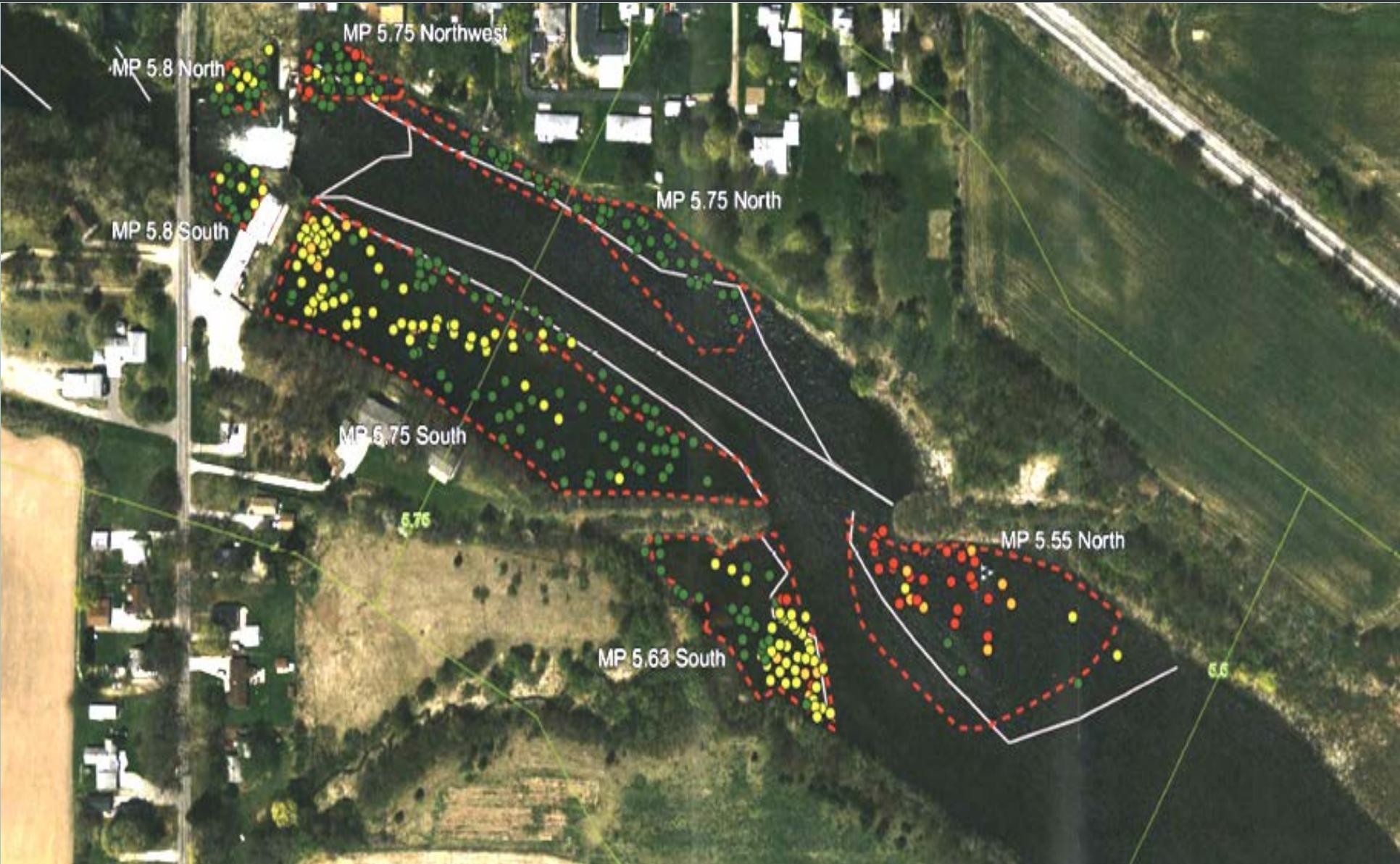


2010 Amphibex Dredge during Ceresco Dredging 2010



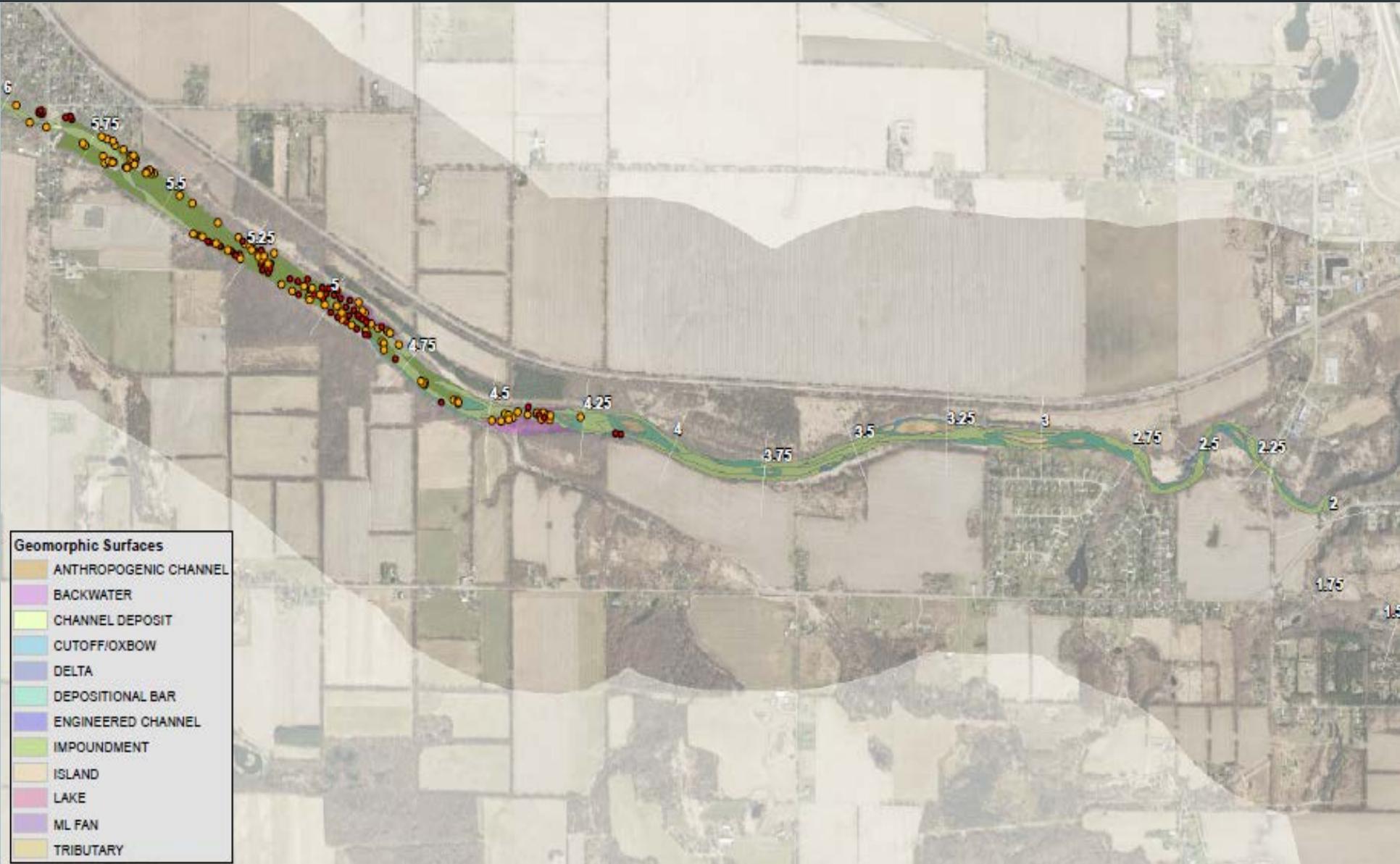


Ceresco Dam Conditions after Fall 2010 Dredging





Ceresco Dam Late Summer Reassessment 2011



Geomorphic Surfaces	
	ANTHROPOGENIC CHANNEL
	BACKWATER
	CHANNEL DEPOSIT
	CUTOFF/OXBOW
	DELTA
	DEPOSITIONAL BAR
	ENGINEERED CHANNEL
	IMPOUNDMENT
	ISLAND
	LAKE
	ML FAN
	TRIBUTARY



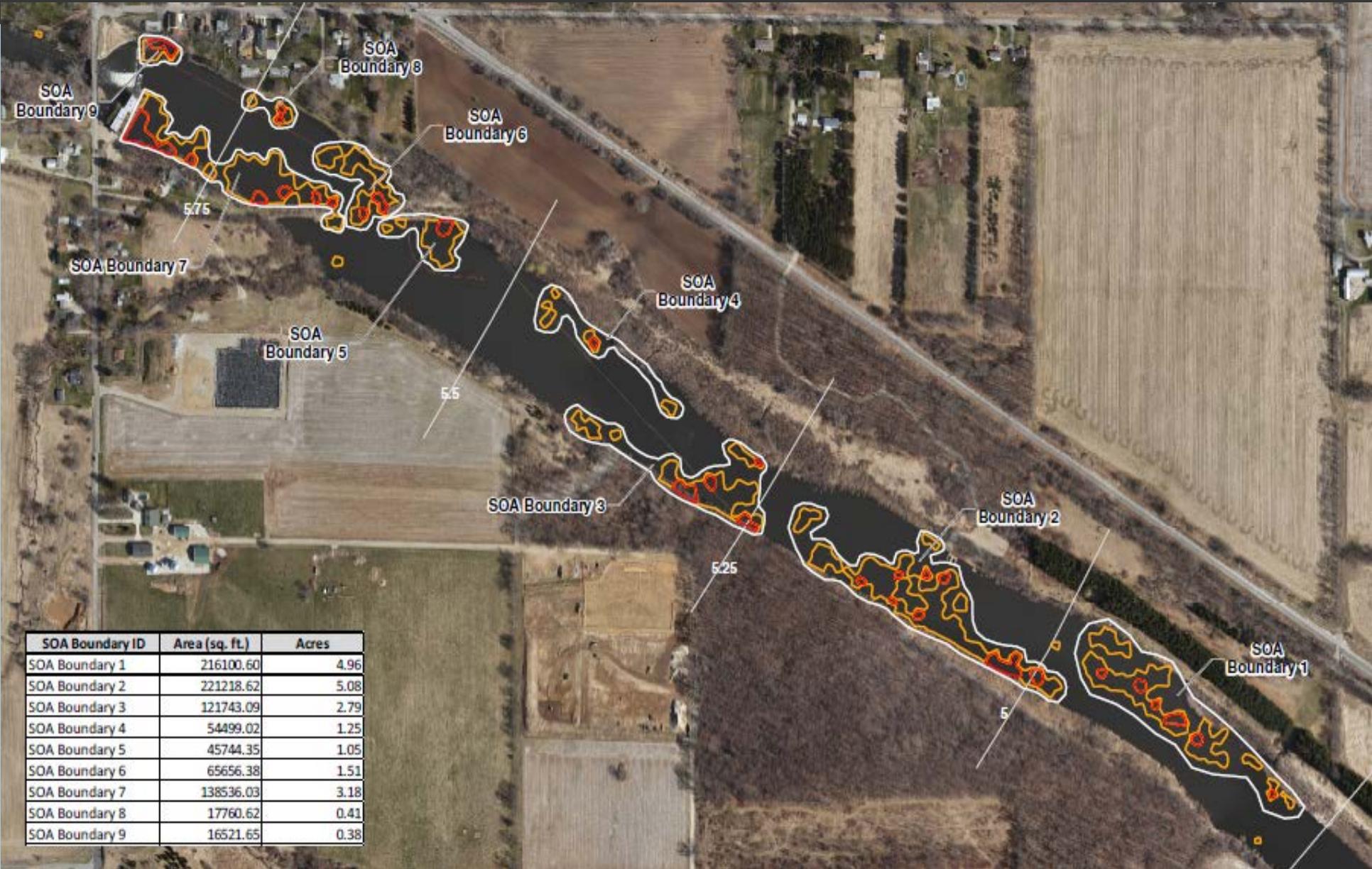
Ceresco Dam Spring Submerged Oil Reassessment 2012



Geomorphic Surfaces	
	ANTHROPOGENIC CHANNEL
	BACKWATER
	CHANNEL DEPOSIT
	CUTOFF/OXBOW
	DELTA
	DEPOSITIONAL BAR
	ENGINEERED CHANNEL
	IMPOUNDMENT
	ISLAND
	LAKE
	ML FAN
	TRIBUTARY



Moderate and Heavy Submerged Oil Delineations Spring 2012



SOA Boundary ID	Area (sq. ft.)	Acres
SOA Boundary 1	216100.60	4.96
SOA Boundary 2	221218.62	5.08
SOA Boundary 3	121743.09	2.79
SOA Boundary 4	54499.02	1.25
SOA Boundary 5	45744.35	1.05
SOA Boundary 6	65656.38	1.51
SOA Boundary 7	138536.03	3.18
SOA Boundary 8	17760.62	0.41
SOA Boundary 9	16521.65	0.38

Ceresco Sub Oil LSR 2012: MP-4.5 to MP-5.83

Spring 2012 Sub Oil: Confluence to MP-4.5



Geomorphic Surfaces	
	ANTHROPOGENIC CHANNEL
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	DELTA
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	ENGINEERED CHANNEL
	IMPOUNDMENT
	ISLAND
	LAKE
	ML FAN
	TRIBUTARY



Ceresco Dam Submerged Oil Late Summer Reassessment 2012: MP-5.6 to MP 5.83 Heavy, Moderate, Light, & None Poling Results



Geomorphic Surfaces	
	ANTHROPOGENIC CHANNEL
	BACKWATER
	CHANNEL DEPOSIT
	CUTOFF/OXBOW
	DELTA
	DEPOSITIONAL BAR
	ENGINEERED CHANNEL
	IMPOUNDMENT
	ISLAND
	LAKE
	ML FAN
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Ceresco Dam Submerged Oil Late Summer Reassessment 2012: MP-5.6 to MP 5.83 Heavy & Moderate Poling Results



Geomorphic Surfaces	
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	LAKE
	ML FAN
	TRIBUTARY



Ceresco Dam Impoundment NEBA Analysis

NEBA

- **MP-4.5. to MP-5.6:** Sheen collection, increase monitoring frequency, continue to evaluate for possible recovery
- **MP-5.6 to MP-5.83:** Follow sediment trap monitoring/maintenance plan, consider recovery (dredging)”



Ceresco Dam Heavy & Moderate Impact Areas MP-4.5 to MP-5.84

Impacted Area & Volume

- Area of impacted sediment defined by heavy and moderate poling results based on the Fall 2012 Late Summer Reassessment results. Area = 23.8 Acres
- Volume of impacted sediment defined by Area and dredging depth of 12 inches. Volume = 38,300 CY

Mill Pond Sub Oil Conditions





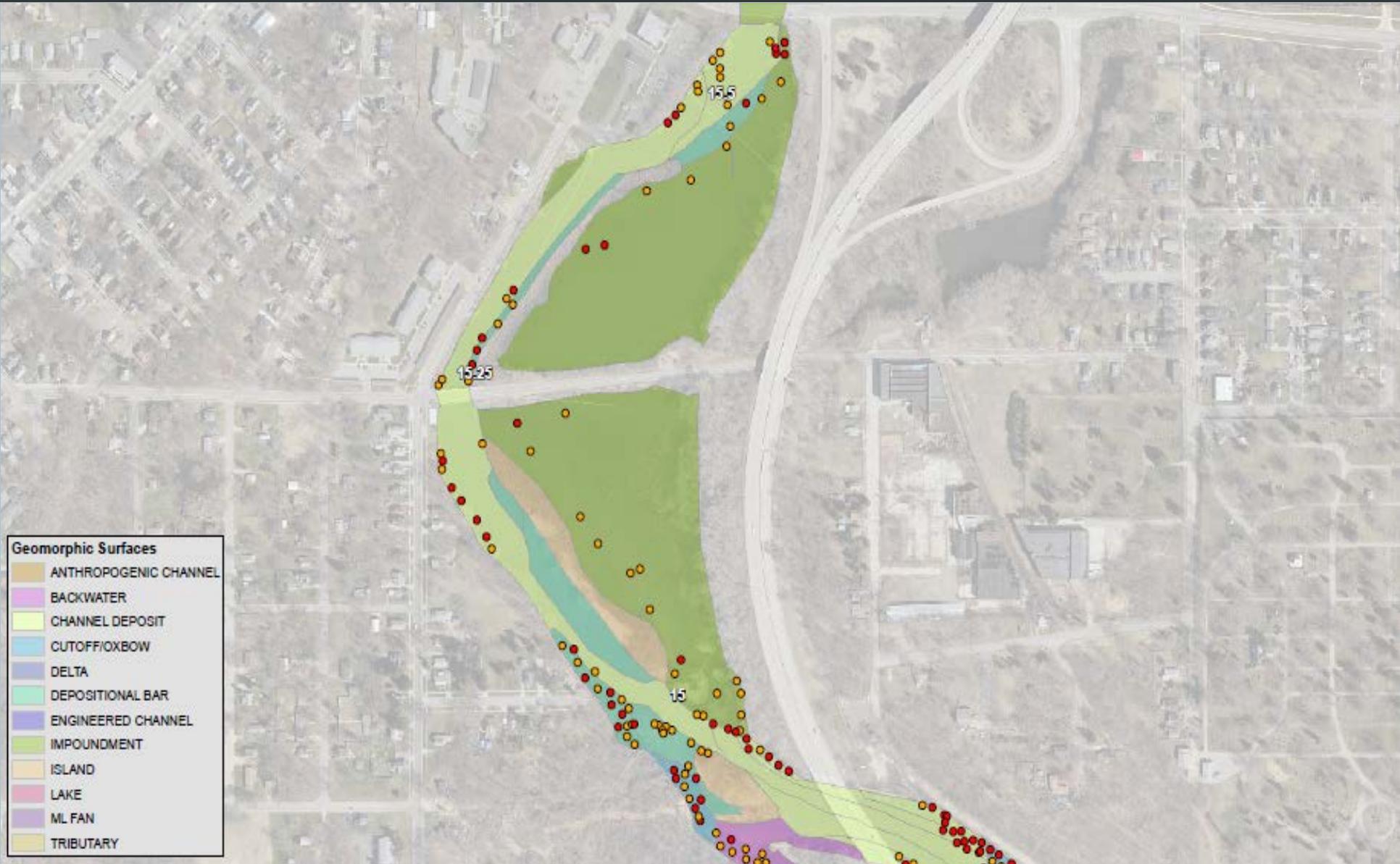
Mill Pond Late Summer Reassessment 2011



- Geomorphic Surfaces**
- ANTHROPOGENIC CHANNEL
 - BACKWATER
 - CHANNEL DEPOSIT
 - CUTOFF/OXBOW
 - DELTA
 - DEPOSITIONAL BAR
 - ENGINEERED CHANNEL
 - IMPOUNDMENT
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 - TRIBUTARY



Mill Pond Spring 2012 Reassessment



Geomorphic Surfaces	
	ANTHROPOGENIC CHANNEL
	BACKWATER
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	ENGINEERED CHANNEL
	IMPOUNDMENT
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	LAKE
	ML FAN
	TRIBUTARY



Mill Pond 2012 Late Summer Reassessment



Geomorphic Surfaces	
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	LAKE
	ML FAN
	TRIBUTARY



Mill Pond NEBA Analysis

NEBA

- Sheen collection, increase monitoring frequency, continue to evaluate for possible future recovery actions



Mill Pond Heavy & Moderate Impact Areas

Impacted Area & Volume

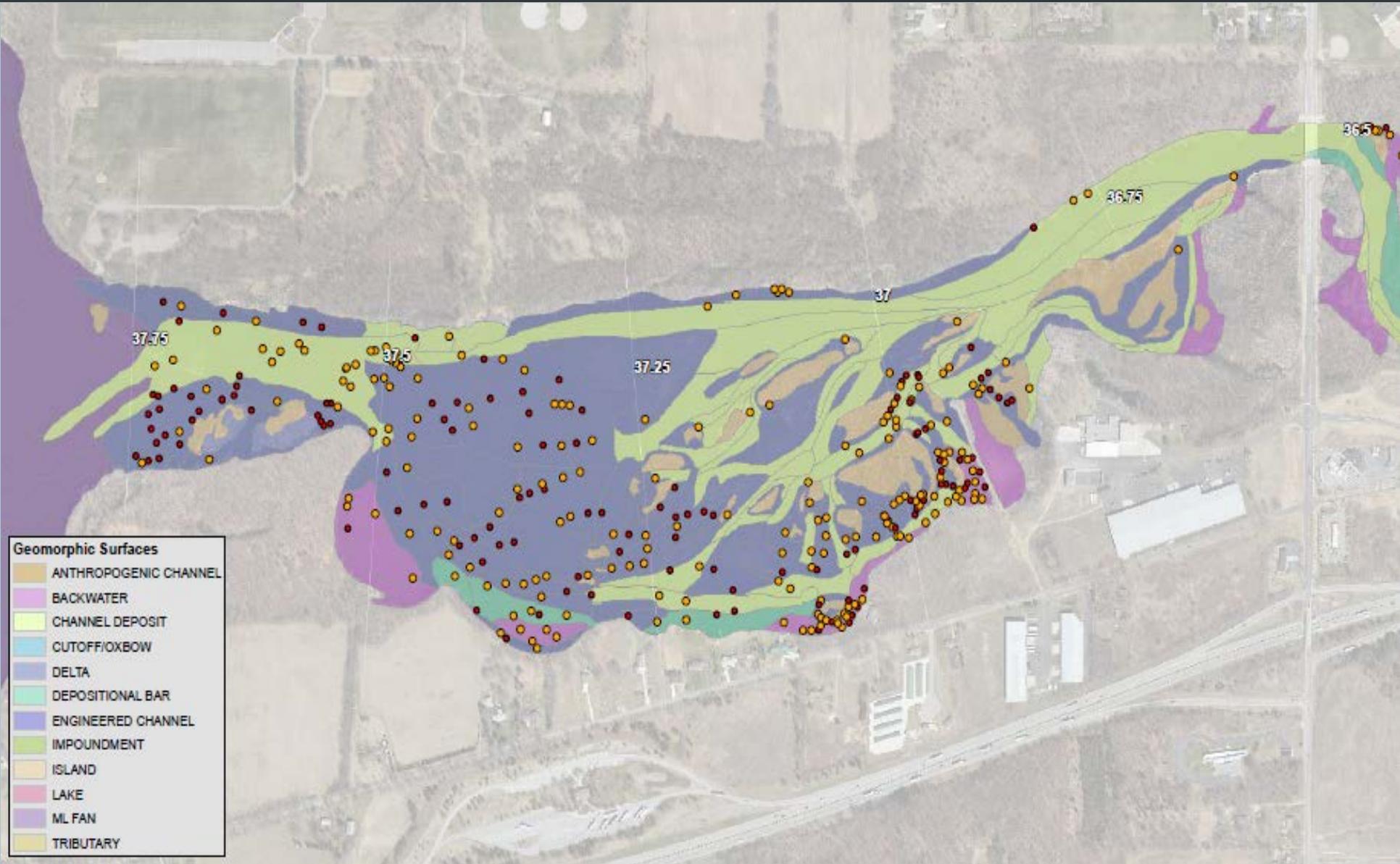
- Area of impacted sediment defined by heavy and moderate poling results based on the Fall 2012 Late Summer Reassessment results. Area = 10 Acres
- Volume of impacted sediment defined by Area and dredging depth of 12 inches. Volume = 16,100 CY

Morrow Lake Delta Sub Oil Conditions





Morrow Lake Delta Fall 2011 Late Summer Reassessment



- Geomorphic Surfaces**
- ANTHROPOGENIC CHANNEL
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Morrow Lake Delta Spring 2012 Reassessment



- Geomorphic Surfaces**
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Morrow Lake Delta Summer 2012 Monitoring



Geomorphic Surfaces

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Morrow Lake Delta NEBA Analysis

NEBA

- **Delta:** Subdivide into subareas, evaluate recovery actions after subarea delineations, follow existing sediment trap monitoring and maintenance plan, for heavy oiled areas consider recovery (dredging)
- **Delta E-E':** Sheen collection; consider recovery (dredging) and making an enhanced (deepened) sediment trap“
- **Delta Sediment Traps:** Follow sediment trap monitoring/maintenance plan and evaluate for possible future recovery.



Morrow Lake Delta Heavy & Moderate Impact Areas

Impacted Area & Volume

- Area of impacted sediment defined by heavy and moderate poling results based on Spring 2012 Submerged Oil Reassessment results. Area = 55 Acres
- Volume of impacted sediment defined by Area and dredging depth of 12 inches. Volume = 88,300 CY