

## APPENDIX L-2G - LACUSTRINE RAP FORMS AND FIGURES

### **Summary of Methods for Pennsylvania Lacustrine Condition Level 2 Rapid Assessment Protocol**

On behalf of PennEast Pipeline Company, LLC (PennEast), AECOM Biologists conducted a review of delineated lakes, reservoirs and large streams and river systems with drainage areas greater than 2,000 square miles that are proposed to be impacted by the PennEast Pipeline Project (Project) in accordance with the Pennsylvania Department of Environmental Protection's (PADEP) *Pennsylvania Lacustrine Condition Level 2 Rapid Assessment Protocol* (L2RAP). The Lacustrine Condition Assessment Form (Form) was used to evaluate these resources as part of the Joint Permit Application (JPA).

The assessment area (AA) consisted of the area of each resource that is proposed to be impacted by construction and/or operation of the Project, plus an additional 25 feet extending from each side. Each resource with the potential to be impacted by the Project was evaluated using a number of parameters, referred to as condition indices, as outlined by the L2RAP procedure. A brief summary of each condition index is discussed below.

Appendix L-2G provides a Form and corresponding map displaying the AA, land use condition category, and area of proposed impact of each resource assessed via the Lacustrine L2RAP impacted within Carbon County.

### **Header Information**

#### **Project Number**

This is designated as AECOM's internal project number associated with PennEast.

#### **Project Name**

This was determined to be the name of the project (i.e. PennEast).

**AA #** The AA is defined by the Feature ID used by AECOM for unique identification of lacustrine features.

#### **Name(s) of Evaluator(s)**

The evaluators were the names of the AECOM biologists who completed the evaluation.

#### **Date**

The date was determined to be the day the field survey and Form was completed.

#### **Latitude and Longitude**

Since these features are typically crossed via horizontal direction drill (HDD), the latitude and longitude was determined in GIS using field collected data to determine the location of the resource's impact.

#### **Impact Size (acres)**

The lacustrine impact size was calculated in GIS using the intersection of the proposed right-of-way (ROW) and Project workspace to the delineated boundary of the resource that was field

delineated and data points collected using a Trimble GPS unit 7. This information is provided within the Aquatic Resource Impact Table in JPA Section A-1.

### **AA Size (acres)**

The lacustrine AA size is calculated in GIS and consists of the sum in acres of the Impact Size plus an additional 25 feet extending from each side of the impact.

## **Lacustrine Assessment Form Process – Form**

### **Condition Indices**

The following section describes each of the four condition indices evaluated for each lacustrine resource. Each condition index was assessed and a numerical, qualitative score was determined for each index. The four scores are then averaged together to determine the overall Lacustrine Condition Index (LCI). This is the final, combined results of the individual assessment categories.

Condition categories were assigned for each parameter in the form. There were categories that had specific details as to properly describe the feature. This was typically based on percentage of visible impact. These categories were optimal, suboptimal, marginal, and poor. Once narrowed down to a single category, a score would be assigned. The scores ranged from 0 to 20 with approximately 3 to 5 scores per category. In certain situations, the percentage range from the condition category was adjusted evenly across the scores and then selected based upon which score matched with the percentage evaluated.

#### **1. Average Depth Condition Index**

The evaluation of the lacustrine feature's average depth within the AA was determined using publically available data such as nautical charts or approximate visual estimations by biologists conducting the resource evaluations. Waterbodies that range 0-6-ft in depth are scored the highest, along with special aquatic habitats (i.e. mud flats, submerged vegetation beds, or emergent wetlands). Waterbodies that were greater than 20-ft in depth received a lower score.

#### **2. Riparian Shoreline Vegetation Condition Index**

The evaluation of the Riparian Shoreline Vegetation for lacustrine features was evaluated up to 50-ft inland from the AA's perimeter. A percent aerial coverage was determined based on the vegetative cover type observed in the area. Coverage where vegetation is comprised of mature forested areas is scored higher than areas that are of comprised of maintained lawns or lower quality lots (i.e. impervious surfaces, row crops, mine spoil lands, etc.). Observation percentages are computed in GIS and field verified. Once a percentage is given to these areas, a score is qualitatively assessed producing sub-scores. Sub-scores are then summed to provide an overall score for the index.

#### **3. Riparian Zone of Influence Vegetation Condition Index**

The evaluation of the Riparian Zone of Influence Vegetation Condition Index for lacustrine features was evaluated from 50-100-ft inland from the AA's perimeter. A percent aerial coverage was determined based on the vegetative cover type observed in the area. Coverage where vegetation was comprised of mature forested areas is scored higher than areas that are of comprised of maintained lawns or lower quality lots (i.e. impervious surfaces, row crops, mine spoil lands, etc.). Observation percentages are computed in GIS and field verified. Once a percentage was given to these areas, a score is qualitatively assessed producing sub-scores. Sub-scores are then summed to provide an overall score for the index.

#### **4. Shoreline and Near-shore Human Alterations Index**

The Shoreline and Near-shore Human Alterations Index for lacustrine features was evaluated for manmade structures or disturbances within 50-ft or along the shoreline of the resource. The condition categories are distributed on a percentage of the area impacted by disturbances (i.e. rip-rap, logs and debris, ramps, docks, etc.). An AA with fewer impacts receives a higher score.

Once all these factors have been calculated, they are averaged to determine an overall Lacustrine Condition Index (LCI) score for the lacustrine resource. Scores can range from 0.05 to 1. A score of one or close to one is interpreted as being a feature that is of higher quality. Lacustrine resources with a lower score can be interpreted as features that have many factors that degrade the quality of the resource and subsequently, lower quality.



## Lacustrine Condition Assessment Form

Pennsylvania Lacustrine Condition Level 2 Rapid Assessment (Document No. 310-2137-004)

Pennsylvania Department of Environmental Protection

For use in lakes, reservoirs, and non-wadeable rivers found within Pennsylvania.

Project #	Project Name	Date	Impact Size	AA #	AA SIZE
60414094	PennEast	4/27/2017	See Impact Table	052215_JC_1001_LAKE_MA(1)	11.2
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes	
W. Anderson, T. Lipp		40.886399	-75.561212		

1. Average Depth Condition Index																					
Average Depth of Impact Area	Condition Category															CI= Total Score/20					
	Optimal					Suboptimal					Marginal						Poor				
	<u>High Optimal:</u> Depth of the AA is greater than 0 and less than or equal to 6 feet in depth on average.* <u>Low Optimal:</u> Depth of the AA is greater than 6 and less than or equal to 10 feet in depth on average.*					Depth of the AA is greater than 10 and less than or equal to 15 feet in depth on average.					Depth of the AA is greater than 15 and less than or equal to 20 feet in depth on average.						Depth of the AA is greater than 20 feet in depth on average.				
<b>SCORE</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	<b>0.65</b>
* Special aquatic habitats such as mud flats, submerged aquatic vegetation beds, emergent wetlands (occurring within the defined limits of the lacustrine resources) are scored optimally regardless of depth conditions.																					
** The average depth is determined by taking a minimum of five measurements along a line that runs the width of the entire AA (parallel to the shoreline), midway between the shoreline and the outer boundary of the AA. Note: The condition category can be raised one level if below High Optimal when habitat complexity is present as described in Section 2.0 narrative .																					
Comments:																					

2. Riparian Shoreline Vegetation Condition Index																																		
Riparian Shoreline Vegetation (from water's edge to 50 ft. inland)	Condition Category															CI= Total Score/20																		
	Optimal					Suboptimal					Marginal						Poor																	
	Riparian area vegetation consists of a tree stratum (diameter at breast height (dbh) > 3 inches) present, with greater than or equal to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory. Areas comprised of stream channels, wetlands (regardless of classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal.					<u>High Suboptimal:</u> Riparian area vegetation consists of a tree stratum (dbh >3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.					<u>Low Suboptimal:</u> Riparian area vegetation consists of a tree stratum (dbh >3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with maintained understory.						<u>High Marginal:</u> Riparian area vegetation consists of a non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh >3 inches) present, with less than 30% tree canopy cover.					<u>Low Marginal:</u> Riparian area vegetation consists of a non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum and areas of hay production, and ponds or open water areas (< 10 acres) present. If tree stratum (dbh >3 inches) present, less than 30% tree canopy cover with maintained understory.					<u>High Poor:</u> Riparian area consists of lawns, mowed and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.					<u>Low Poor:</u> Riparian area consists of impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.		
<b>SCORE</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	<b>1.05</b>													
1. Identify all applicable Condition Category areas within the riparian shoreline area using the descriptors above. 2. Estimate the % area within each condition category. 3. Enter the % Shoreline Area in decimal form (0.00) and Score for each category in the blocks below.																																		
<b>Scoring:</b>	Condition Category:																	<b>Total Sub-Scores:</b>																
	% Area:		100%					0%					0%						0															
	Score:		20					0					0						0															
Sub-score:		21.00					0.00					0.00					0.00	21.00																
Comments:																																		

## Lacustrine Condition Assessment Form

Pennsylvania Lacustrine Condition Level 2 Rapid Assessment (Document No. 310-2137-004)

Pennsylvania Department of Environmental Protection

For use in lakes, reservoirs, and non-wadeable rivers found within Pennsylvania.

### 3. Riparian Zone of Influence (ZOI) Vegetation Condition Index

	Condition Category																				
	Optimal				Suboptimal				Marginal				Poor								
Riparian Zone of Influence (from 50-100 feet inland)	Riparian ZOI vegetation consists of a tree stratum (diameter at breast height (dbh) > 3 inches) present, with greater than or equal to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory. Areas comprised of stream channels, wetlands (regardless of classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal.				<b>High Suboptimal:</b> Riparian ZOI vegetation consists of a tree stratum (dbh >3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.				<b>Low Suboptimal:</b> Riparian ZOI vegetation consists of a tree stratum (dbh >3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with maintained understory.				<b>High Marginal:</b> Riparian ZOI vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh >3 inches) present, with less than or equal to 30% tree canopy cover.		<b>Low Marginal:</b> Riparian ZOI vegetation consists of a non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum and areas of hay production, and ponds or open water areas (< 10 acres) present. If tree stratum (dbh >3 inches) present, less than 30% tree canopy cover with maintained understory.		<b>High Poor:</b> Riparian ZOI vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.		<b>Low Poor:</b> Riparian ZOI vegetation consists of impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.		CI= Total Score/2 0
<b>SCORE</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	
1. Identify all applicable Condition Category areas within the riparian ZOI using the descriptors above. 2. Estimate the % area within each condition category. Calculators are provided for you below. 3. Enter the % ZOI Area in decimal form (0.00) and Score for each category in the blocks below.														<b>Total Score = SUM(%Areas*Scores)</b>		1.05					
Condition Category:																					
% ZOI Area:														Total Sub-Scores:							
Score:														21.00							
Sub-score:														21.00		1.05					
Comments:																					

### 4. Shoreline and Near-shore Human Alterations Index

	Condition Category																								
	Optimal				Suboptimal				Marginal				Poor												
Shoreline and Near-shore Human Alterations Index	<b>High Optimal:</b> No man-made structures, roads or other disturbances within 50 feet or along the lacustrine shoreline.				<b>Low Optimal:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine shoreline occupying less than 10% of the shoreline.				<b>High Suboptimal:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine shoreline occupying greater than or equal to 10% but less than 25% of the shoreline.				<b>Low Suboptimal:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine shoreline occupying greater than or equal to 25% but less than 40% of the shoreline.				<b>High Marginal:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine shoreline occupying greater than or equal to 40% but less than 55% of the shoreline.		<b>Low Marginal:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine shoreline occupying greater than or equal to 55% but less than 70% of the shoreline.		<b>High Poor:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine (shoreline) occupying greater than or equal to 70% but less than 85% of the shoreline.		<b>Low Poor:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine (shoreline) occupying greater than or equal to 85% of the shoreline.		CI= Total Score/2 0
<b>SCORE</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1					
Comments:														Score		19		0.95							

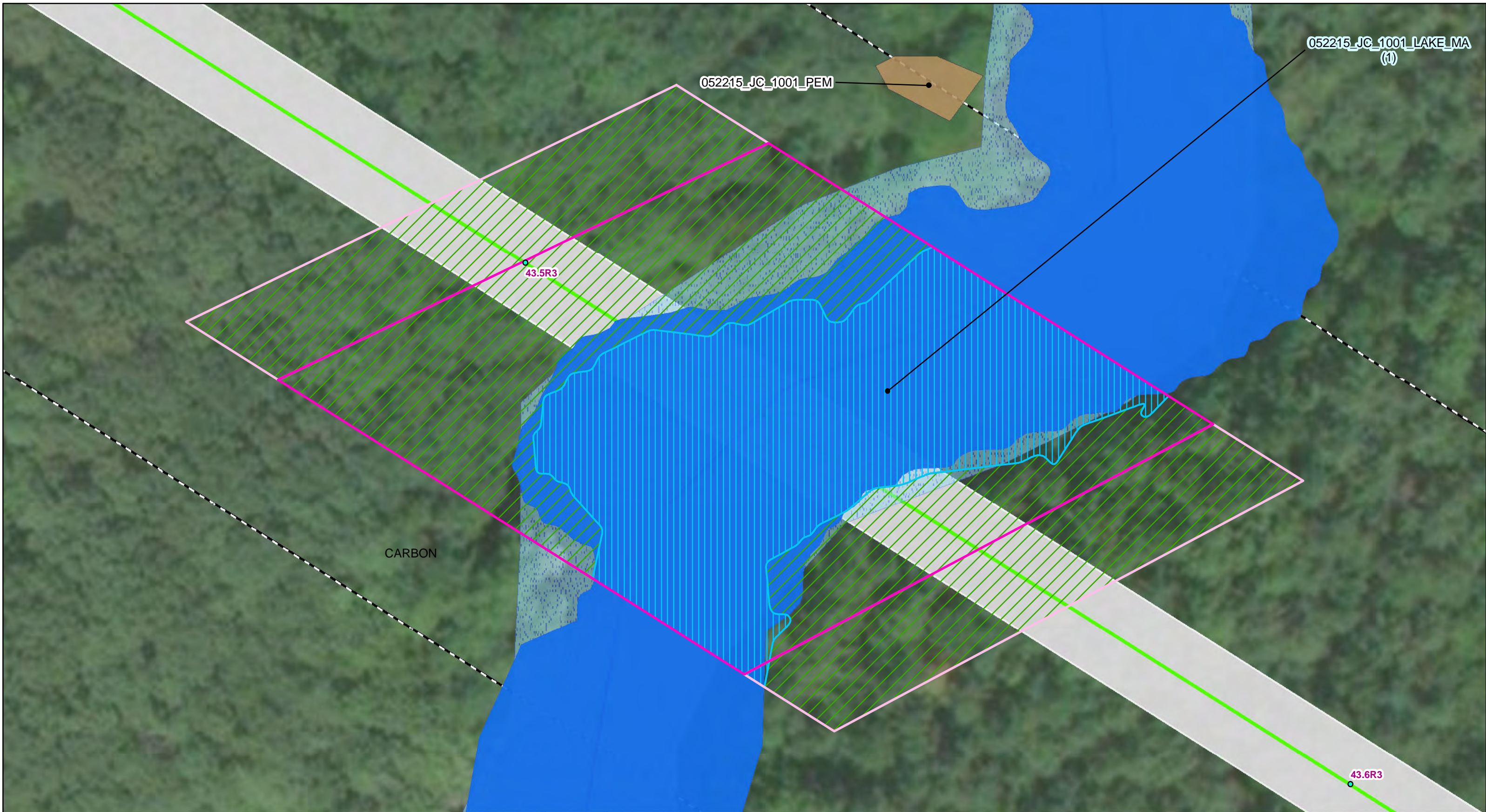
Overall Lacustrine Level 2 Condition Score: Sum all four of the Condition Indexes and divide by 4 to calculate the overall condition score (value between 0.05 and 1.0).

Overall Condition Index:

0.93

General Comments:





- Legend**
- Milepost
  - 9/19/18 IFC Pipeline Centerline
  - 9/19/18 IFC Permanent Easement
  - Parcel Boundary
  - Riparian Vegetation Boundary
  - Riparian ZOI

- Riparian ZOI MM Landuse**
- Forest/Woodland
  - Open Water

- Shoreline Area MM Landuse**
- Forest/Woodland
  - Open Water

- Delineated Waterbody**
- Bank Delineation
- Delineated Wetland**
- PEM

- Public Features**
- NHD Stream
  - NHD Waterbody

**Rapid Assessment Protocol Maps**

Lacustrine

Feature:052215\_JC\_1001\_LAKE\_MA (1)

RAP Score:  
Page 2 of 3

0 15 30 60 90 120 Feet



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Project #	Project Name	Date	Impact Size	AA #	AA SIZE
60414094	PennEast	4/27/2017	See Impact Table	052215_JC_1001_LAKE_MA(2)	9.6
Name(s) of Evaluator(s)		Lat (dd)	Long (dd)	Notes	
W. Anderson, T. Lipp		40.882692	-75.553580		

**1. Average Depth Condition Index**

Average Depth of Impact Area	Condition Category															CI= Total Score/20					
	Optimal					Suboptimal					Marginal						Poor				
	High Optimal:		Low Optimal:			Depth of the AA is greater than 10 and less than or equal to 15 feet in depth on average.					Depth of the AA is greater than 15 and less than or equal to 20 feet in depth on average.						Depth of the AA is greater than 20 feet in depth on average.				
	Depth of the AA is greater than 0 and less than or equal to 6 feet in depth on average.*		Depth of the AA is greater than 6 and less than or equal to 10 feet in depth on average.																		
<b>SCORE</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	<b>0.65</b>

\* Special aquatic habitats such as mud flats, submerged aquatic vegetation beds, emergent wetlands (occurring within the defined limits of the lacustrine resources) are scored optimally regardless of depth conditions.

\*\* The average depth is determined by taking a minimum of five measurements along a line that runs the width of the entire AA (parallel to the shoreline), midway between the shoreline and the outer boundary of the AA. Note: The condition category can be raised one level if below High Optimal when habitat complexity is present as described in Section 2.0 narrative.

Comments:

**2. Riparian Shoreline Vegetation Condition Index**

Riparian Shoreline Vegetation (from water's edge to 50 ft. inland)	Condition Category															CI= Total Score/20																		
	Optimal					Suboptimal					Marginal						Poor																	
	Riparian area vegetation consists of a tree stratum (diameter at breast height (dbh) > 3 inches) present, with greater than or equal to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory. Areas comprised of stream channels, wetlands (regardless of classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal.					High Suboptimal: Riparian area vegetation consists of a tree stratum (dbh >3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.					Low Suboptimal: Riparian area vegetation consists of a tree stratum (dbh >3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with maintained understory.						High Marginal: Riparian area vegetation consists of a non-maintained, dense herbaceous vegetation with either a shrub layer or a tree stratum (dbh >3 inches) present, with less than 30% tree canopy cover.					Low Marginal: Riparian area vegetation consists of a non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum and areas of hay production, and ponds or open water areas (< 10 acres) present. If tree stratum (dbh >3 inches) present, less than 30% tree canopy cover with maintained understory.					High Poor: Riparian area consists of lawns, mowed and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.					Low Poor: Riparian area consists of impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.		
<b>SCORE</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1														

1. Identify all applicable Condition Category areas within the riparian shoreline area using the descriptors above.

2. Estimate the % area within each condition category.

3. Enter the % Shoreline Area in decimal form (0.00) and Score for each category in the blocks below.

**Total Score = SUM(%Areas\*Scores)**

		Condition Category															Total Sub-Scores:	1.05									
<b>Scoring:</b>	% Area:	100%					0%					0%							0%					0%			
	Score:	20					0					0					0					0					
	Sub-score:	21.00					0.00					0.00					0.00					0.00					21.00

Comments:



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### 3. Riparian Zone of Influence (ZOI) Vegetation Condition Index

	Condition Category																				
	Optimal				Suboptimal				Marginal				Poor								
Riparian Zone of Influence (from 50-100 feet inland)	Riparian ZOI vegetation consists of a tree stratum (diameter at breast height (dbh) > 3 inches) present, with greater than or equal to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory. Areas comprised of stream channels, wetlands (regardless of classification or condition) and lacustrine resources ≥ 10 acres are scored as optimal.				<b>High Suboptimal:</b> Riparian ZOI vegetation consists of a tree stratum (dbh >3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.				<b>Low Suboptimal:</b> Riparian ZOI vegetation consists of a tree stratum (dbh >3 inches) present, with greater than or equal to 30% and less than 60% tree canopy cover with maintained understory.				<b>High Marginal:</b> Riparian ZOI vegetation consists of non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh >3 inches) present, with less than or equal to 30% tree canopy cover.		<b>Low Marginal:</b> Riparian ZOI vegetation consists of a non-maintained, dense herbaceous vegetation, riparian areas lacking shrub and tree stratum and areas of hay production, and ponds or open water areas (< 10 acres) present. If tree stratum (dbh >3 inches) present, less than 30% tree canopy cover with maintained understory.		<b>High Poor:</b> Riparian ZOI vegetation consists of lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, pervious trails, recently seeded and stabilized, or other comparable condition.		<b>Low Poor:</b> Riparian ZOI vegetation consists of impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, impervious trails, or other comparable conditions.		CI= Total Score/20
<b>SCORE</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

1. Identify all applicable Condition Category areas within the riparian ZOI using the descriptors above.

2. Estimate the % area within each condition category. Calculators are provided for you below.

3. Enter the % ZOI Area in decimal form (0.00) and Score for each category in the blocks below.

**Total Score = SUM(%Areas\*Scores)**

	Condition Category:																																									
<b>Scoring:</b>	% ZOI Area:	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																				
	Score:	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
	Sub-score:	21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00																			
<b>Total Sub-Scores:</b>																					<b>21.00</b>																					<b>1.05</b>

Comments:

### 4. Shoreline and Near-shore Human Alterations Index

	Condition Category																								
	Optimal				Suboptimal				Marginal				Poor												
Shoreline and Near-shore Human Alterations Index	<b>High Optimal:</b> No man-made structures, roads or other disturbances within 50 feet or along the lacustrine shoreline.				<b>Low Optimal:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine shoreline occupying less than 10% of the shoreline.				<b>High Suboptimal:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine shoreline occupying greater than or equal to 10% but less than 25% of the shoreline.				<b>Low Suboptimal:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine shoreline occupying greater than or equal to 25% but less than 40% of the shoreline.				<b>High Marginal:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine shoreline occupying greater than or equal to 40% but less than 55% of the shoreline.		<b>Low Marginal:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine shoreline occupying greater than or equal to 55% but less than 70% of the shoreline.		<b>High Poor:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine (shoreline) occupying greater than or equal to 70% but less than 85% of the shoreline.		<b>Low Poor:</b> Man-made structures, roads or other disturbances within 50 feet or along the lacustrine (shoreline) occupying greater than or equal to 85% of the shoreline.		CI= Total Score/20
<b>SCORE</b>	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1					

Comments:

Score 18

0.90

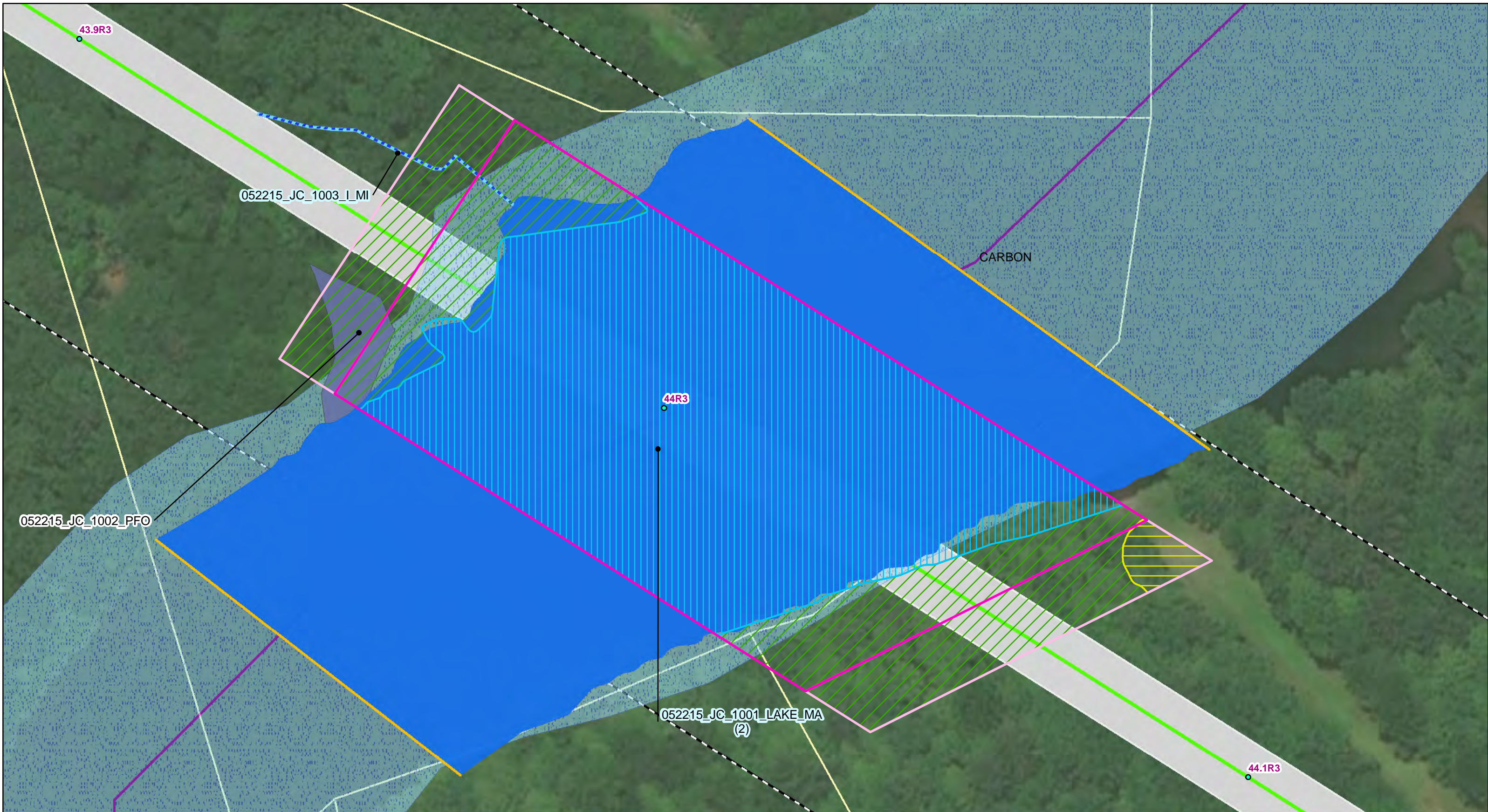
Overall Lacustrine Level 2 Condition Score: Sum all four of the Condition Indexes and divide by 4 to calculate the overall condition score (value between 0.05 and 1.0).

Overall Condition Index:

0.91

General Comments:





**Legend**

- Milepost
- 9/19/18 IFC Pipeline Centerline
- 9/19/18 IFC Permanent Easement
- 9/19/18 IFC Survey Area
- Parcel Boundary
- Riparian Vegetation Boundary
- Riparian ZOI

**Riparian ZOI MM Landuse**

- Forest/Woodland
- Open Land

**Shoreline Area MM Landuse**

- Forest/Woodland
- Open Land
- Open Water

**Delineated Waterbody**

- Bank Delineation
- Centerline Delineation

**Delineated Wetland**

- PFO
- Open Ended Delineation

**Public Features**

- NHD Stream
- NHD Waterbody

**Rapid Assessment Protocol Maps**

Lacustrine

Feature: 052215\_JC\_1001\_LAKE\_MA (2)

RAP Score:  
Page 1 of 3

0 20 40 80 120 160 Feet