

DATE: 9/23/2026

FILE REF: NA/

TO: Nicole Krueger, Limit Calculator; Jacob Van Susteren-Wedesky, Compliance Engineer

FROM: Craig Helker and Rachel Sabre, Stream Biologist; Diane Figiel, Limit Calculator
Coordinator; Justin Chenevert, Waterbody Assessment Coordinator

SUBJECT: ATI Ladish LLC, Edgerton Channel (WBIC 15575), Milwaukee County

Overview of issue

In preparation for reissuance of the ATI Ladish permit, staff were requested to do a site visit to determine the appropriate stream classifications for the receiving waters. ATI Ladish outfall 040 (combined outfalls 002 and 003) to the Edgerton Channel is a continuous discharger, with an actual annual average flow of 0.046 MGD (0.071 cfs) for outfall 040.

The immediate receiving water is Edgerton Channel. This flows for approximately 1.5 miles in a channelized system into Wilson Park Creek at approximately General Mitchel International Airport. The facility's previous permit limits were based on Limited Forage Fish for the Edgerton Channel.

The 2003 recommendation proposed LAL for Wilson Park Creek, Edgerton Channel, and Unnamed Tributary "Upstream of the confluence with the Kinnickinnic River in the SE1/4 NW1/4 T6N R22E S27 to the headwaters at Nicholson Road in the NE 1/4 Se1/4 T6N R22E S27". The main objectives of this site visit are to determine the appropriate Natural Community and Designated Use for the Edgerton Channel and revisit the previous classification for Wilson Park Creek.

Summary of previous and proposed stream class recommendations

- **Segment 1 (most upstream): Edgerton Channel (WBIC 15575)**
 - *Currently codified Designated Use:* not in ch. NR 104 as LAL or LFF and not classified as trout water
 - *Classification used for previous permit issuance:* LFF
 - *Previous stream class recommendations:* LAL
 - *Modeled Natural Community:* Cool-warm headwater
 - *New recommended Natural Community and Designated Use:* Cool-warm Headwater – WWFF
- **Segment 2: (downstream of Pennsylvania Avenue): Edgerton Channel (WBIC 15575)**
 - *Currently codified designated use:* not in ch. NR 104 as LAL or LFF and not classified as trout water
 - *Classification used for previous permit issuance:* Warm water
 - *Previous stream class recommendations:* LAL
 - *Modeled Natural Community:* Cool-warm headwater
 - *New recommended Natural Community & Designated Use:* Cool-warm Headwater - WWFF
- **Segment 3: Wilson Park Creek (WBIC 15200)**
 - *Currently codified designated use:* not in ch. NR 104 as LAL or LFF and not classified as trout water
 - *Classification used for previous permit issuance:* Warm water
 - *Previous stream class recommendations:* Warm water forage fish (Will Wawrzyn, May 2003)
 - *Modeled Natural Community:* Cool-warm headwater

- *New recommended Natural Community & Designated Use: Keep previous stream classification*

Site overview map

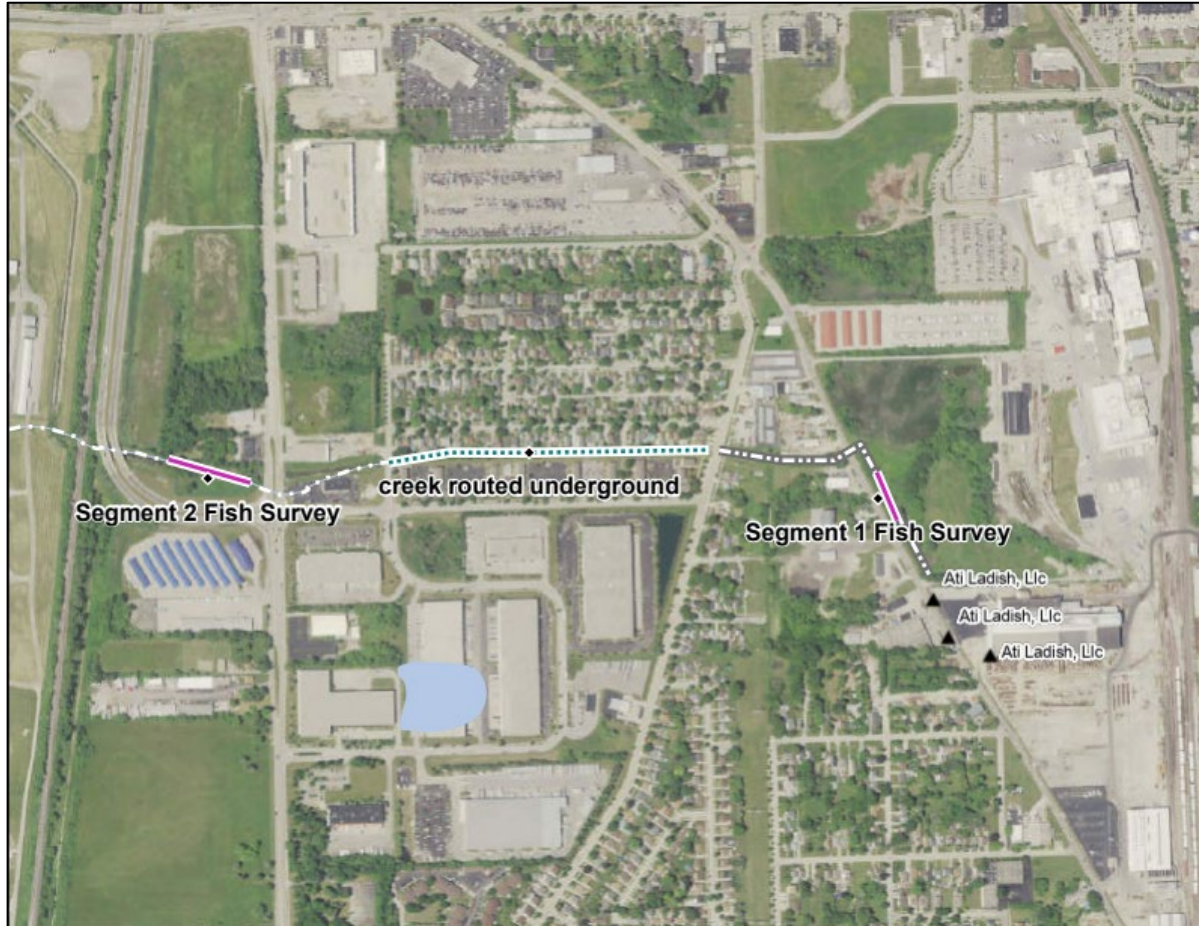


Figure 1. Map from Water Condition Viewer. Arrows show location of fish surveys 1 and 2 on Edgerton Channel, and outfall location. Wilson Park Creek begins at the far left of the map.

Site observations and habitat survey results

On August 21st, 2025, Water Quality Biologists Craig Helker and Rachel Sabre conducted stream surveys at two locations on the Edgerton Channel (WBIC 15575) in Milwaukee County, Wisconsin. These surveys were completed in order to re-visit the Use Designation for the waterway. The two surveys were conducted under established DNR protocols and consisted of fish community assessments via single-probe backpack electrofishing and instantaneous water quality recording. In addition, quantitative fish habitat surveys were completed for each survey location.

Both Edgerton Channel and its receiving water Wilson Park Creek are highly channelized and habitat impaired. Wilson Park Creek is concrete lined for a majority of its length, with over 1.5 miles additionally being run underground through concrete culverts. Similarly, Edgerton Channel is routed underground for 0.3 miles in a concrete culvert from South Nicholson Avenue downstream to Delaware Avenue. These habitat and fish migration barriers in the system present a significant challenge to maintaining sustainable and diverse fish populations. These challenges are reflected in the limited species diversity of collected fish. Ongoing concrete removal and naturalization efforts downstream in the Kinnickinnic River, and as planned for in Wilson Park Creek, will eventually improve species diversity in the system.

Segment 1 (most upstream):

Helker and Sabre surveyed 100 meters of Edgerton Channel (Figure 1), which was approximately one meter in width and historically dredged, resulting in a very wide and shallow streambed. This segment of Edgerton Channel is straightened, with the surrounding land use as predominantly urban. Water depth in channel was approx. 0.1-0.2 meters. Observed flow was estimated at less than 1.0 cfs. Biologists observed significant accumulation of silt and sand across channel bottom, with an estimated average depth of 0.2 meters.

The cumulative Qualitative Fish Habitat Rating for Seg. 1 was 25 (Fair), scoring 'Fair' for Buffer Width, 'Excellent' for Width/Depth ratio, and 'Fair' for Riffle/Riffle ratio. All other categories (Bank Erosion, Pool Area, Fine Sediments, Cover for Fish) scored 'Poor'.



Figure 2. Looking upstream, Segment 1.

Segment 2:

Water quality biologists surveyed 100 meters of Edgerton Channel downstream of Pennsylvania Avenue, approximately 2-3 meters in width. Water depth in the channel varied between 0.1-0.5 meters, and flow was estimated as less than 1.0 cfs. Bottom substrate was predominately a mix of silt and sand, with areas of gravel accumulation. Dense riparian vegetation provided shading, and some woody debris was present in-stream.

The cumulative Qualitative Fish Habitat Rating for Seg. 2 was 48 (Fair), scoring 'Excellent' in Width/Depth ratio, and 'Good' in Buffer Width, Bank Erosion and Cover for Fish. The segment scored 'Fair' in Pool Area, and 'Poor' in Riffle/Riffle ratio and Fine Sediments.

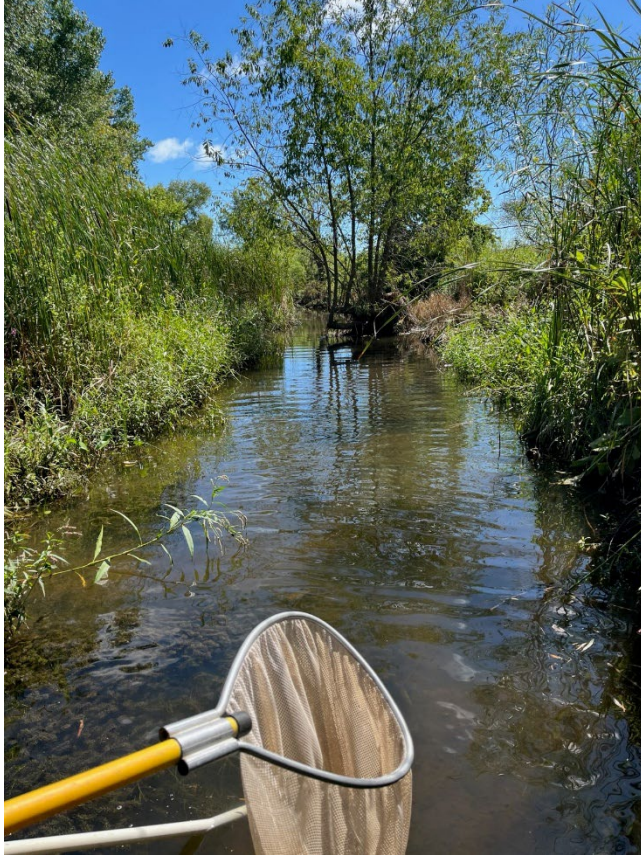


Figure 3. Looking upstream, Segment 2.

Fish survey results

Table 1. 8/21/2025 Fish Collection Results. Fish species tolerance guild (Tol = Tolerant, Inter = Intermediate, Intol = Intolerant) and temperature guild (Cold, Transitional-Trans, Warm) included.

<i>Fish collected</i>	<i>Segment 1</i>	<i>Segment 2</i>
Bluegill (<i>Warm</i>)		9
Creek Chub (<i>Habitat Tol, Trans</i>)	183	36
Fathead Minnow (<i>DO Tol, Warm</i>)	27	3

Segment 1: A total of 210 fish were captured in the 100-meter station, with 87% of this population (Creek Chub) considered not tolerant of low dissolved oxygen conditions, but tolerant of degraded habitat. The remaining collected fish were Fathead Minnows, considered tolerant of low dissolved oxygen. The limited species diversity is due to habitat quality, low stream flow, and significant downstream habitat limitations and fish passage barriers. The modeled Natural Community is verified as Cool-Warm Headwater.

Segment 2: The survey revealed a total of 48 fish of three species, with only one species (Fathead Minnow) tolerant of low dissolved oxygen conditions. One additional collected species (Creek Chub) is considered tolerant of degraded habitat. Nine Bluegill were also collected and are considered not tolerant to degraded conditions or low oxygen. This community makeup can be considered representative of a Forage Fish community. The modeled Natural Community is verified as Cool-Warm Headwater.

Discussion and Designated Use Recommendations

Note: Recommendations from this site visit are shown at the top of this memo.

After completing the surveys described above, reviewing guidance outlined in Guidelines for Designating Fish and Aquatic Life Uses for Wisconsin Surface Waters (December 2004) and applying Best Professional Judgement, staff recommend the following:

Segment 1: The existing use (what is currently present) in this segment of the Edgerton Channel (WBIC 15575) reflects a Warm Water Forage Fish community due to the number of fish collected. It is estimated that habitat improvement, especially removal of fish passage barriers and downstream concrete channelization, would slightly improve fish community diversity in this portion, however the limiting factor would remain low water flow in this headwaters area.

Segment 2: Downstream of Pennsylvania Avenue, the existing use of Edgerton Channel (WBIC 15575) at this location also reflects Warm Water Forage Fish due to the quality of the fish community present. The fish population and diversity of this location would also be improved by downstream passage barriers and channelization. Surrounding land use and low flows would however continue to be a limit on these fish populations.

Because existing conditions at both sampled segments reflect WWFF communities, we recommend that the Existing and Designated Use of Edgerton Channel for this reissuance and permit limits be based on WWFF. The modeled Natural Community for Edgerton Channel is confirmed as Cool-Warm Headwater.

Are code changes and/or a Use Attainability Analysis needed?

- For Segments 1 and 2 (the entirety of Edgerton Channel), we recommend permit limits for this reissuance based on WWFF.
- Wilson Park Creek is currently classified as Warmwater Forage Fish, and no change is recommended. Should concrete removal occur downstream, this classification should be re-visited.

No code changes or UAA are recommended for Edgerton Channel or Wilson Park Creek

Attachments

- Attachment 1: Photos (with number & brief description of location)
- Attachment 2: Fish Survey & NC Verification Report
- Attachment 3: Habitat surveys

Attachments 1: Photos



Figure 4. ATI Ladish Outfall

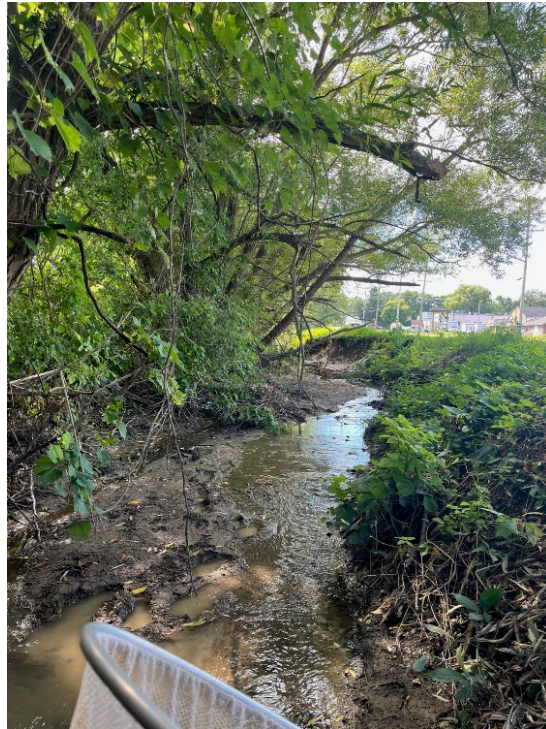


Figure 5. Segment 1, start of fish station looking upstream.



Figure 6. Segment 1, end of fish survey station.

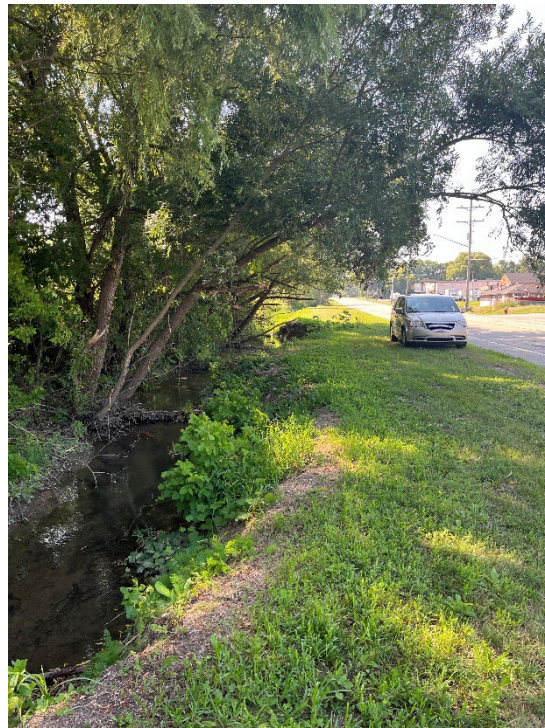


Figure 7. Segment 1, bottom 1/3 of fish station, looking upstream.



Figure 8. Downstream side of Nicholson Avenue, looking west. Culvert runs underground.



Figure 9. Culvert under Nicholson Avenue, looking west (upstream).

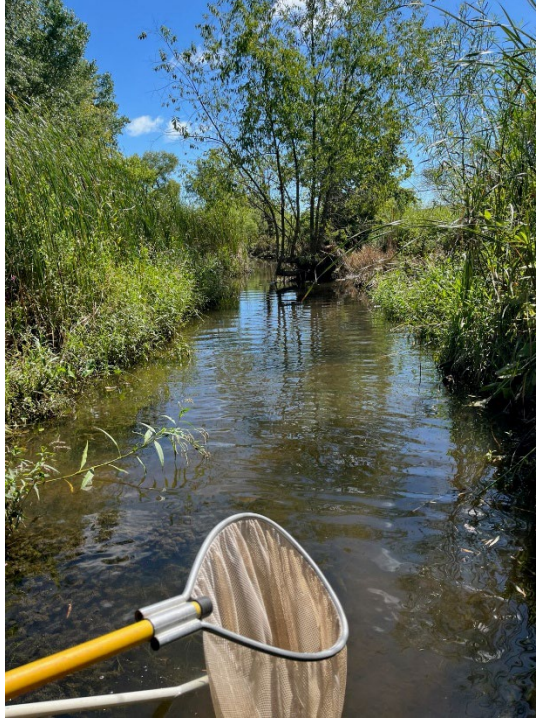


Figure 10. Segment 2, downstream of Pennsylvania Avenue. Start of fish station.



Figure 11. Segment 2, end of fish station.

Attachment 2: Fish Surveys & NC Verification Report

Natural Community Verification -Data Entry Spreadsheet			Form V4. 11-20-2015			
Only enter data into the cells shaded in orange. The rest will autofill/autocalculate.						
Biologist:	Craig Helker; Rachel Sabre		KEY:			
Today's Date:	3/5/2026		Enter data in cell; these entries are used to lookup/autocalculate values in green cells			
Sample Date:	8/21/2025		Value will autocalculate based in on data entered in orange cells			
Station Number:	10060842					
Station Name/Description:	Unnamed Tributary ATI Ladish					
Fieldwork Description:	Fish survey					
Waterbody Name:	Unnamed Tributary (ATI Ladish)					
Counties:	Milwaukee					
AUs:						
WBIC:	15575					
HUC10 (req'd for weather data):			Must enter all 10 digits including preceding zeros			
Modeled Natural Community:	Cool-Warm Headwater		Click for picklist: This field must be entered exactly as shown in the tables on tab 2 for autocalculations to work.			
Fish Catch (enter each species and the number found)						
Species (common name)	Number	Thermal Guild (C,T,W)	Stream Size (S,M,L)	Tolerance (IT,IM,T)	Number of Stream Species	NOTE
Creek Chub	183	T	S	T	183	
Fathead Minnow	27	W	S	T	27	

Figure 12. Field data from fish survey conducted at Segment 1.

Natural Community Verification Recommendation Form T4. 11-20-2015
Only enter data into the cells shaded in yellow. The rest will autofill/autocalculate.

BioLogist: KEY:

Today's date: Enter information in cell (no
Sample Date: Value will autocalculate here

Station Number:

Station Name/Description:

Fieldwork Description:

Waterbody Name:

County:

AU:

WBIC:

HUC10:

Modeled Natural Community:

ENTER THE FOLLOWING AFTER THE ASSESSMENT BELOW HAS BEEN COMPLETED:

Model "Verified or correct", OR "Prepared change"?

If a change is prepared, what is the new prepared NC?

TO BE FILLED IN BY THE REVIEW TEAM, IF APPLICABLE:

Reviewed by review team? If so, enter date reviewed:

Decision:

Status for prepared (for rule change, etc.):

1. COMPARE OBSERVED VERSUS EXPECTED SPECIES GUILDS
The following tables will autocalculate based on data provided in the data entry tab.

Total number of individuals observed in each Guild (this will autocalculate)

Thermal	Stream Size	Tolerance	
Coldwater	0 Small Stream	210 Intolerant	0
Transitional	183 Medium Stream	0 Intermediate	0
Warmwater	27 Large River	0 Tolerant	210

Observed & Expected Guild Percentages (these will autocalculate)

Guild	Observed	Expected Range		Within Range?
		Low End	High End	
Coldwater	0%	0%	5%	Y
Transitional	87%	25%	100%	Y
Warmwater	13%	0%	75%	Y

Guild	Observed	Expected Range		Within Range?
		Low End	High End	
Small Stream	100%	50%	100%	Y
Medium Stream	0%	0%	50%	Y
Large River	0%	0%	10%	Y

Based on the "Within Range" assessment above (Y/N), is the modeled Natural Community verified as correct?
Yes/No/Uncertain, etc.; add notes if needed:
Yes, Verified as correct.

- If the modeled NC is verified as correct, you may stop here and make your verification recommendation.
Or, if you feel the data may have been taken during an extreme weather year, continue on to step 2 to assess weather data.
- If the model is not verified as correct, move on to step 2.

Figure 13. Natural community verification report for Segment 1.

Natural Community Verification -Data Entry Spreadsheet			Form V4. 11-20-2015		
Only enter data into the cells shaded in orange. The rest will autofill/autocalculate.					
Biologist:	Craig Helker; Rachel Sabre				KEY:
Today's Date:	3/5/2026				
Sample Date:	8/21/2025				
Station Number:	10060842				
Station Name/Description:	Edgerton Channel Downstream of Penn Ave				
Fieldwork Description:	Fish survey				
Waterbody Name:	Edgerton Channel				
Counties:	Milwaukee				
AUs:					
WBIC:	15575				
HUC10 (req'd for weather data):					Must enter all 10 digits including
Modeled Natural Community:	Cool-Warm Headwater				Click for picklist: This field must b
Fish Catch (enter each species and the number found)					
Species (common name)	Number	Thermal Guild (C,T,W)	Stream Size (S,M,L)	Tolerance (IT,IM,T)	Number of Stream Species
Bluegill	9	W	L	IM	9
Creek Chub	36	T	S	T	36
Fathead Minnow	3	W	S	T	3

Figure 14. Field data from fish survey conducted at Segment 2.

Natural Community Verification Recommendation Form 74.11-20-2015

Only enter data into the cells shaded in yellow. The rest will autofill/autocalculate.

Bioaquist:	Craig Holker, Rachel Sabre	KEY:	
Today's date:	3/5/2026		Enter information in cell (not Value will autocalculate here)
Sample Date:	3/2/2025		
Station Number:	1006082		
Station Name/Dor:	Edgerton Channel Dam/Stream		
Fieldwork Description:	Fish survey		
Waterbody Name:	Edgerton Channel		
County:	Milwaukee		
AUR:	0		
WBIC:	15575		
HUC10:	0		
Modeled Natural Community:	Cool-Warm Headwater		

ENTER THE FOLLOWING AFTER THE ASSESSMENT BELOW HAS BEEN COMPLETED:

Model "Verified or correct", OR "Prepared change?"

If a change is prepared, what is the new prepared NC?

TO BE FILLED IN BY THE REVIEW TEAM, IF APPLICABLE:

Reviewed by review team? If so, enter date reviewed:

Decision:

Status (prepared for rule change, etc.):

1. COMPARE OBSERVED VERSUS EXPECTED SPECIES GUILDS

The following table will autocalculate based on data provided in the data entry tab.

Total number of individuals observed in each Guild (this will autocalculate)

Thermal	Stream Size	Tolerance
Coldwater	0 Small Stream	29 Intolerant
Transitional	28 Medium Stream	0 Intermediate
Warmwater	12 Large River	9 Tolerant

Observed & Expected Guild Percentages (these will autocalculate)

Guild	Observed	Expected Range		Within Range?
		Low End	High End	
Coldwater	0%	0%	5%	Y
Transitional	75%	25%	100%	Y
Warmwater	25%	0%	75%	Y

Guild	Observed	Expected Range		Within Range?
		Low End	High End	
Small Stream	81%	50%	100%	Y
Medium Stream	0%	0%	50%	Y
Large River	19%	0%	10%	N

Based on the "Within Range" assessments above (Y/N), is the modeled Natural Community verified or correct?
 Yes, No, Uncertain, etc.; add notes if needed:
 Outside of Large River range.

- If the modeled NC is verified or correct, you may stop here and make your verification recommendation.
 Or, if you feel the data may have been taken during an extreme weather year, continue on to text 2 to assess weather data.
 - If the model is not verified or correct, move on to text 2.

2. TOLERANCE: ARE HUMAN-CAUSED IMPACTS EVIDENT?

If the observed Natural Community does not fit the modeled NC based on Thermal and Size guilds, use the Tolerance ranges below to determine whether the difference in species is likely due to human-caused impacts.

- If **BOTH** Intolerant species and Tolerant species are **OUTSIDE** the expected range (i.e. "N"),

it is likely that the difference in NC is human-caused, and the NC should not be changed.

- If **ZERO OR ONE OF** (BUT NOT BOTH) Intolerant and Tolerant species are outside the expected range, then the difference in NC is likely not human-caused and a new NC may be prepared.

Guild	Observed	Tolerance		
		Expected Range	Within Range?	
		Low End	High End	
Intolerant	0%	PRESENT	100%	N
Intermediate*	19%	0%	100%	Y
Tolerant	81%	0%	75%	N

*The "Intermediate" value is not used in the determination, but is provided for informational purposes.

Based on the Tolerance "Within Range" assessments above (Y/N), is the difference between observed and expected NC likely due to human-caused impacts? If so, the modeled NC should not be changed.

Yes, No, Uncertain, etc.; add notes if needed:

Both Intolerant and Tolerant are outside of range. NC should not be changed.

Figure 15. Natural community verification report for Segment 2.

Attachment 3: Habitat Surveys

Edgerton Channel 'Segment 1'					
8/21/2025					
Riparian Buffer	5	Fair			
Bank Erosion	0	Poor			
Pool Area	0	Poor			
W/D Ration	15	Excellent			
Riffle:Riffle or E	5	Fair			
Fine Sediments	0	Poor			
Cover for Fish	0	Poor			
	25				
Edgerton Channel 'Segment 2'					
8/21/2025					
Riparian Buffer	10	Good			
Bank Erosion	10	Good			
Pool Area	3	Fair			
W/D Ration	15	Excellent			
Riffle:Riffle or E	0	Poor			
Fine Sediments	0	Poor			
Cover for Fish	10	Good			
	48				

Figure 16. Habitat surveys for Segments 1 and 2.