



STATE OF TENNESSEE  
**DEPARTMENT OF ENVIRONMENT AND CONSERVATION**  
**DIVISION OF WATER RESOURCES**

Memphis Environmental Field Office  
8383 Wolf Lake Drive  
Bartlett, TN 38133  
Phone 901-371-3000    Statewide 1-888-891-8332    Fax 901-371-3170

April 23, 2024

Mr. Kevin Whipp  
Ford Motor Company  
17000 Rotunda Drive  
Dearborn, MI 48120  
E-Copy: [kwhipp@ford.com](mailto:kwhipp@ford.com)

RE:    ARAP Compliance Inspection  
      Blue Oval City  
      ARAP Tracking Number: NRS21.238

Dear Mr. Whipp,

On November 15, 2023, Mrs. Heather Smith and Mrs. Joellyn Brazile from the Tennessee Division of Water Resources (Division) conducted an inspection of the above-referenced site. The purpose of the inspection was to determine compliance with the Tennessee Water Quality Control Act of 1977 as well as permitted activities authorized under the Individual ARAP (NRS21.238). The compliance inspection report and photos from the inspection are attached.

During the inspection the following conditions were documented:

- No signage identifying Wetlands 5 and 2 as protected wetlands was observed onsite as required by ARAP NRS21.238.
- A portion of Stream 1-A had been realigned to flow south of the project area, which was not shown on the plans submitted to the Division. The plans the Division has on file show this segment of the stream being encapsulated. The Division has no record of a permit modification request or revised plans being submitted for this deviation. The original Stream 1-A channel that was permitted to be encapsulated, was filled.
- Partially bare, unstable areas were observed throughout the channelized segment of Stream 2. Although vegetation was observed within the channel, it did not appear to be installed as the plans the Division has on file describe and therefore as required by ARAP NRS21.238. Additionally, the Division has no record of being contacted prior to diverting the stream flow into the new channel as required by ARAP NRS21.238.
- Water was observed impounded upgradient of the segment of Stream 9 that will be encapsulated.

- A check dam was observed installed at the northern terminus of the channelized segment of Stream 1-B.

Since the November 15, 2023, inspection, the Division has received confirmation from Ford addressing most of the issues observed during the inspection. However, the realignment/design revision of a portion of Stream 1-A and a portion of Stream 9 is in violation of the ARAP NRS21.238 permit due to General Condition #5 of ARAP NRS21.238 not being followed. General Condition #5 states “Impacts to waters of the state other than those specifically addressed in the plans and this permit are prohibited.”. The Division was not notified prior to the realignment/design revision and therefore the site remains out of compliance with permit conditions.

Rule 0400-40-07-.04 (b) states in part: “At a minimum, all new or relocated streams must include a vegetated riparian zone, demonstrate lateral and vertical channel stability, and have a natural channel bottom. All mitigation watercourses must maintain or improve flow and classified uses after mitigation is complete.”

The Division’s Stream Mitigation Guidelines guidance document offers the following minimum requirements regarding stream relocations: Stream relocations should have natural substrate and a riparian zone must be revegetated, preferably with native species, signage indicating zones of “no mowing”, maintained or improved flow and retain classified uses after relocation is complete. Relocations greater than 500 linear feet will require a site-specific biological and habitat assessment utilizing the approved TDEC SOP, or other scientifically defensible method as approved by the Division. Additional information can be found: [Aquatic Resource Alteration Permit \(ARAP\) \(tn.gov\)](#)

#### Required Actions:

- On or before **June 11, 2024**, submit the following to the Division:
  - 1) A detailed plan utilizing data driven methods using aspects of natural channel design that documents elements of the channel such as watershed hydrology, channel hydraulics, sediment transport, lateral site constraints and morphological reference conditions within the ecoregion. The plan should include specific information regarding the linear footage of stream channel for Stream 1-A and Stream 9 that was initially authorized under NRS21.238, information regarding the amount of fill that occurred to either/both channels and specific information regarding the realignment/relocation, including but not limited to linear length.
  - 2) A 12-point mitigation plan (following Section 5.2.2 of the Division’s Stream Mitigation Guidelines) that includes documenting the stream’s existing conditions (pre-impact), proposed condition and monitoring requirements. Replacement channels will need to be vegetated, have a natural channel bottom, and have channel stability, both laterally and vertically throughout the monitoring period. Please consult credible sources such as the Natural Resource Conservation Services National Engineering Handbook Stream Restoration Design or the TN Department of Transportation Design Division Drainage Manual, Chapter 11, Natural Stream Design or the Division’s Compensatory Mitigation website. The 12-point mitigation plan must use the TN SQT or other scientifically defensible and approve method to

determine functional loss and lift of the project. The plan should also include any channel modifications that will be required to meet the Division's Stream Mitigation Guidelines.

Thank you for your prompt attention and cooperation in this matter. If you have any questions, please contact Mrs. Heather Smith at (901) 302-8537 or [Heather.N.Smith@tn.gov](mailto:Heather.N.Smith@tn.gov) or myself at (901) 237-6000 or [Joellyn.Brazile@tn.gov](mailto:Joellyn.Brazile@tn.gov).

Sincerely,

A handwritten signature in blue ink that reads "Joellyn Brazile". The signature is written in a cursive style with a large, looping initial "J".

Joellyn Brazile  
Environmental Consultant 3  
Division of Water Resources

Enclosures: Compliance Inspection Report and Photographs

cc: TDEC/DWR: file  
ec: Ann McCormick, Ford Motor Company [amccorm3@ford.com](mailto:amccorm3@ford.com)  
Elise Lewandowski, Walbridge [elewandowski@walbridge.com](mailto:elewandowski@walbridge.com)

**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF WATER RESOURCES  
MEMPHIS ENVIRONMENTAL FIELD OFFICE  
AQUATIC RESOURCE ALTERATION PERMIT COMPLIANCE INSPECTION**

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DATE: 11/15/23 Time on-site: 0900 Last Rain Event: \_\_\_\_\_ Photos taken: YES  NO

Inspectors: Heather Smith, Joellyn Brazile, TDEC DWR

Location name: Blue Oval City

Lat/Long: 35.439648, -89.433431

ARAP No.: NRS21.238

Type Inspection: Routine: <input checked="" type="checkbox"/> Complaint: <input type="checkbox"/> Follow-up <input type="checkbox"/> Termination: <input type="checkbox"/>
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Alterations Complete?  Mitigation Required?  Mitigation Complete?

Work compliant with permit?  Site stable?  Follow Up needed?

**SITE CONDITIONS**

Heather Smith and Joellyn Brazile with DWR conducted a routine inspection of the site on November 15, 2023.

No alterations were observed within Wetlands 5 and 2, which were to be undisturbed as per the plans submitted to the Division. However, no signage was observed on site labeling Wetlands 5 and 2 as protected wetlands, as required by Special Condition 12 of ARAP NRS21.238. The western segment of Stream 1-A has not been encapsulated as shown in the submitted plans. This segment of Stream 1-A appears to have been realigned, which was not included in the submitted plans. Bare unstable soils and erosional rills were observed within the segment of Stream 2 that was channelized under NRS21.238. Water was impounded on the upgradient end of the segment of Stream 9 that will be encapsulated. A check dam was observed installed in Stream 1-B at the northern terminus of the segment of Stream 1-B that has been channelized.


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Heather Smith  
Environmental Consultant 2  
Division of Water Resources  
Memphis Environmental Field Office


## Photographic Log

<b>Project:</b> Blue Oval City		<b>Site Location:</b> 2672 Keeling Road		<b>Permit No.:</b> NRS21.238	
<b>Photo No.</b> 01	<b>Date</b> 11/15/2023	<b>DIRECTION</b> 59 deg(T)	35.43653°N 089.41636°W	<b>ACCURACY 5 m</b> <b>DATUM WGS84</b>	
<p><b>Description</b> View of wetland 2, near the southwestern corner of the wetland. No alterations were observed within this wetland, which was to be left undisturbed as per ARAP NRS21.238. However, no signage was observed identifying this area as protected wetlands to which no disturbance is permitted.</p>		 <p style="text-align: right; margin-top: 10px;">2023-11-15 09:33:41-06:00</p>			


# Photographic Log

Project:		Site Location:	Permit No.:
Blue Oval City		2672 Keeling Road	NRS21.238
Photo No.	Date	DIRECTION 35.43487°N 356 deg(T) 089.43467°W ACCURACY 4 m DATUM WGS84	
02	11/15/2023		
Description		2023-11-15 09:56:09-06:00	
View of the undisturbed segment of Stream 11, which was not proposed to be disturbed under NRS21.238. No disturbance was observed within this segment of the stream.			

# Photographic Log


Project:		Site Location:	Permit No.:
Blue Oval City		2672 Keeling Road	NRS21.238
Photo No.	Date	DIRECTION	ACCURACY 5 m DATUM WGS84
03	11/15/2023	222 deg(T)	35.43296°N 089.44128°W
<b>Description</b> View of the northern end of the portion of Stream 1-A permitted to be encapsulated, looking southwest. No flow was observed within the work area.			

# Photographic Log


<b>Project:</b> Blue Oval City		<b>Site Location:</b> 2672 Keeling Road	<b>Permit No.:</b> NRS21.238
<b>Photo No.</b> 04	<b>Date</b> 11/15/2023	<b>DIRECTION</b> 288 deg (T)	<b>35.42915°N</b> <b>089.44774°W</b> <b>ACCURACY 5 m</b> <b>DATUM WGS84</b>
<b>Description</b> View of Stream 1-A, near the southwestern terminus of the segment of Stream 1-A that was permitted to be encapsulated, looking west. The stream was not encapsulated in this area as shown on plans submitted as part of NRS21.238.		 <p>2023-11-15 10:48:14-06:00</p>	




## Photographic Log

<b>Project:</b> Blue Oval City		<b>Site Location:</b> 2672 Keeling Road		<b>Permit No.:</b> NRS21.238	
<b>Photo No.</b> 05	<b>Date</b> 11/15/2023	DIRECTION 175 deg(T)	35.42915°N 089.44776°W	ACCURACY 5 m DATUM WGS84	
<p><b>Description</b> View of Stream 1-A in the same location as photo 04, looking south. The stream appears to have been realigned which was not included in the plans submitted under NRS21.238. The banks had been hydroseeded and grass was observed establishing. Several checks dams were installed across the channel.</p>					


# Photographic Log

Project:		Site Location:	Permit No.:
Blue Oval City		2672 Keeling Road	NRS21.238
Photo No.	Date	DIRECTION 35.42753°N 181 deg(T) 089.44222°W ACCURACY 4 m DATUM WGS84	
06	11/15/2023		
<b>Description</b> View looking south, at the segment of Stream 2 that was channelized as part of the alterations permitted under NRS21.238. Erosional rills (circled) were observed along both banks of the channelized segment of the stream.			
		2023-11-15 11:05:41-06:00	


## Photographic Log

<b>Project:</b> Blue Oval City		<b>Site Location:</b> 2672 Keeling Road		<b>Permit No.:</b> NRS21.238	
<b>Photo No.</b> 07	<b>Date</b> 11/15/2023	DIRECTION 247 deg(T)	35.42752°N 089.44222°W	ACCURACY 4 m DATUM WGS84	
<p><b>Description</b> Another view of the channelized segment of Stream 2, looking west southwest. While some vegetation was observed within the stream, both banks of the stream appeared unstable and numerous erosional rills were observed.</p>					
		2023-11-15 11:05:46-06:00			

## Photographic Log

<b>Project:</b> Blue Oval City		<b>Site Location:</b> 2672 Keeling Road		<b>Permit No.:</b> NRS21.238	
<b>Photo No.</b> 08	<b>Date</b> 11/15/2023	DIRECTION 352 deg(T)	35.42764°N 089.44416°W	ACCURACY 5 m DATUM WGS84	
<p><b>Description</b> View of Stream 9, looking north, towards the segment of the stream permitted to be encapsulated under NRS21.238. Water was impounded on the upgradient end of the work area within the stream. Check dams and other in-flow treatments are not authorized to be placed within streams.</p>					
		2023-11-15 11:10:42-06:00			

# Photographic Log

<b>Project:</b> Blue Oval City		<b>Site Location:</b> 2672 Keeling Road	<b>Permit No.:</b> NRS21.238
<b>Photo No.</b> 09	<b>Date</b> 11/15/2023	<b>DIRECTION</b> 53 deg(T)	<b>35.43320°N</b> <b>089.44149°W</b> <b>ACCURACY 4 m</b> <b>DATUM WGS84</b>
<b>Description</b> A view of the check dam installed in Stream 1-B at the northern terminus of the segment of the stream channelized under NRS21.238. Checkdams and other in-flow treatments are not authorized to be placed within streams.		 <p>2023-11-15 10:37:56-06:00</p>	