DPMC Project # P1230-00 • Amphibian Crossing Waterloo Road (TA-2016) Byram Township, Sussex County, NJ

Final Design Phase

Design Consultant: NV5

Thursday, May 18, 2023 • Virtual Public Information Center COMMENT RESOLUTION SUMMARY

Prepared By: NV5 and New Jersey Department of Environmental Protection

Question Period: Thursday, May 18, 2023 to Thursday, June 1, 2023

Progress Print: June 5, 2023

DOCUMENT FORMAT:

Question or comment received during Virtual Public Information Center or question period

Response: Response to question or comment provided by NV5 and/or NJDEP.

GENERAL NOTE:

Will the Public Information Center material be available for review and to post comments during the comment period?

Response

The Public Information Center plan sets will be provided on the NJDEP Fish and Wildlife website: https://dep.nj.gov/njfw/conservation/waterloo-road-amphibian-crossing-project/

Questions and Comments between May 18, 2023 through June 1, 2023 can be submitted on the website listed above or sent to:

MacKenzie Hall, Biologist

Endangered and Nongame Species Program

NJDEP Fish and Wildlife

PO Box 394, Lebanon NJ 08833 MacKenzie.Hall@dep.nj.gov

A. Virtual Public Information Center Questions and Comments:

1. Will predator guards be used to prevent mortality from raccoons, etc.? Many amphibian culverts utilize predator guards/screens.

Response

We are not aware of predator guards being used at amphibian tunnels, other than during short-term surveys where pitfall traps are used to assess amphibian presence and behavior. We don't plan to do pitfall trapping at this site but will use more passive methods – like camera systems – to monitor the wildlife crossings for at least one full year post-construction. This will help us identify any issues and adapt the system as needed..

Because amphibian movements happen during inclement weather when most predators are not active, and in just a few big waves each season (rather than with habit-forming consistency), loss of amphibians to predators should be minimal. A literature review by Little et al. (2002) found that most wildlife passage studies record no evidence of predation in or around passages, or infrequent opportunistic predation rather than a recurring pattern of it:

www.researchgate.net/publication/222648588 Do wildlife passages act as prev-traps

The natural substrate within the proposed amphibian tunnels will also provide cover and extra predator protection for amphibians traveling between Allamuchy State Park and the vernal pool at Waterloo Village.

2. Might be early in the process, but will the tunnels be monitored for use post-construction? Will trail cameras be used to monitor movement?

Response

Yes, the tunnels will be monitored for at least one full year post-construction to assess their use by amphibians as well as other wildlife on site. NJDEP is considering the best methods of monitoring the target species. Typical passive infrared motion-detection cameras are not suitable for cold blooded animals, but we may use a combination of time-lapsed photos and/or beam-break (active light trigger) camera methods.

3. Is there planned regular maintenance of storm grates for water runoff so they don't clog?

Response

The proposed amphibian tunnels are designed to avoid stormwater runoff through the tunnels. The design includes grading on the Allamuchy State Park slope to divert stormwater runoff away from the amphibian tunnels, and stone underdrain trenches at regular intervals along the guide fencing for water to percolate through. Stormwater from the mountain will continue to move to and through existing culverts on site. Regular inspection and maintenance of the amphibian crossing system, including removal of debris buildup at the tunnel entrances, will be performed as needed by NJDEP under Agreement with Sussex County.

4. Thanks for this great project and presentation! How will the staging of the tunnel work with only half being completed, will it be blocked off until complete?

Response

In order to construct the amphibian tunnels while keeping Waterloo Road open (avoiding a long detour), staged construction will be used. The proposed design includes constructing the Waterloo Village side of the tunnels first while using alternating traffic on the Waterloo Road westbound direction to keep the roadway open. The second stage will construct the Allamuchy State Park side and use the alternating traffic on the Waterloo Road eastbound direction. During construction, the ends of the tunnels will likely be blocked off, but due to timing restrictions and construction outside of an amphibian crossing timeframe, amphibian movements in the area should not be an issue. Snake monitoring will be done by a qualified consultant during any construction activities taking place during the active season.

5. No question, just comment. THANK YOU! As someone who has supported this project for the near decade it has been in process, I can't wait to see it completed. Thanks MacKenzie! And having worked with Denice on a major project in Byram in the past, having her heading this up on the construction side, I know the critters are in good hands. I'll be sending a full comment letter. Thanks!

Response Acknowledged.

6. Thanks so much, MacKenzie and Denice! I'm so excited about this project and grateful for all of your hard work.

Response Acknowledged.

7. On behalf of the Byram Environmental Commission, we thank you for the presentation and all of your efforts on this project. If you need our support at any point, we would be happy to help.

Response

Acknowledged. NV5 / DPMC / NJDEP will contact Byram Environmental Commission if additional information or support is required.

B. Post Virtual Public Information Center Questions and Comments:

1. NJDEP Website comment: Received 05/18/2023 6:04PM:

Will predator guards be used at the entrances of the culverts? Will cameras be utilized to monitor movement?

Response

Similar comment received during the Virtual Public Information Center.

We are not aware of predator guards being used at amphibian tunnels, other than during short-term surveys where pitfall traps are used to assess amphibian presence and behavior. We don't plan to do pitfall trapping at this site but will use more passive methods – like camera systems – to monitor the wildlife crossings for at least one full year post-construction. This will help us identify any issues and adapt the system as needed.

Because amphibian movements happen during inclement weather when most predators are not active, and in just a few big waves each season (rather than with habit-forming consistency), loss of amphibians to predators should be minimal. A literature review by Little et al. (2002) found that most wildlife passage studies record no evidence of predation in or around passages, or infrequent opportunistic predation rather than a recurring pattern of it:

www.researchgate.net/publication/222648588_Do_wildlife_passages_act_as_prey-traps

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