



April 22, 2016

Brian Scofield
U.S. Fish and Wildlife Service
110 Radnor Rd; Suite 101
State College, PA 16801

**Subject: Revised Bog Turtle Conservation Plan – April 2016
Sunoco Pipeline, L.P. - Pennsylvania Pipeline Project Multiple Counties
(Formerly part of the Mariner East 2 Pipeline Project - Project #2014-0200)**

Dear Mr. Scofield:

Tetra Tech, Inc. (Tetra Tech) has been retained by Sunoco Pipeline, L.P. (SPLP) to conduct environmental field surveys and permitting services for the proposed Pennsylvania Pipeline Project (PPP or Project). On behalf of SPLP, Tetra Tech is providing a third iteration of the Project's Bog Turtle Conservation Plan to the U.S. Fish and Wildlife Service (Service)-Pennsylvania Field Office in response to discussions after the February 29, 2016 conservation plan submittal and in response to the field meeting on April 6, 2016.

The bog turtle is documented as occurring, or assumed to occur, at several sites in and in the vicinity of the Project areas. Project-related coordination with the Service yielded information on known occupied bog turtle sites so that early planning for avoidance and minimization could be considered. Early in the project planning, SPLP went to great lengths to avoid and minimize direct and indirect impacts to bog turtles and their habitats as presented within the October 2, 2016 conservation plan. After review of that plan and discussions during a January 26, 2016 meeting, the Service outlined its initial determination in regards to impacts to the bog turtle in a February 16, 2016 correspondence letter to Tetra Tech. In that letter and meeting discussion, the Service provided concurrence with most of the survey findings and avoidance measures, but expressed the need for possible additional bog turtle survey, information, and avoidance and minimization and a revised conservation plan was submitted on February 29, 2016. After the revised plan was submitted, a field meeting to view several wetlands across the Project took place on April 6, 2016. This revised conservation plan addresses items that were discussed and determinations that were made as a result of that field meeting.

This plan provides SPLP's commitment to avoidance, minimization, and conservation measures to prevent impacts to the bog turtle within the Project area. SPLP has conducted extensive background research and field surveys to identify bog turtle occurrence and habitats within and adjacent to all Project work areas. These surveys along with direct coordination with the USFWS Pennsylvania Ecological Services Field Office provided the foundation for the development of this plan.

SPLP's efforts from Project inception to presentation of this plan to route the Project around occupied or assumed occupied sites and minimize impacts to the bog turtle is well documented. SPLP has avoided highly sensitive occupied areas at Marsh Creek State Park and Middle Creek Wildlife Management Area and as rerouted around other occupied wetlands such as C7, C8, and C44. As a standard practice for avoiding impacts to the bog turtle when avoidance measures have been considered SPLP will cross three known occupied (A54, A55, C43) bog turtle wetlands utilizing HDD technology during the turtle's active period (April 1 to September 30). SPLP has rerouted around occupied wetlands C7 and C8, but will need to dry-bore Wetland C6 in this area. A Phase II survey scheduled to be completed in May 2016 at Wetland C43, will remove all bog turtle special considerations from that drill area upon a negative result. At AM2, the wetland will be crossed with an open trench with special protection exclusion measures and monitoring by a Qualified Bog Turtle Surveyor (QBTS). SPLP will also commit to protection of the A54 and A55 habitats through operation of the pipelines through the installation of no mowing signs, hand clearing, and limiting herbicide

applications. The five adjacent wetlands (C44, AM1, AM2, C7, and C8) will be protected through implementation of the BMPs outlined within this conservation plan.

Through the design of the Project, SPLP has minimized disturbance to bog turtle wetlands as much as operationally possible by implementing pipeline reroutes around and HDD or dry-bore under bog turtle wetlands. The primary concern with HDD is the release of drilling mud into a sensitive resource. While the potential for inadvertent returns cannot be eliminated, SPLP has (in the case of geotechnical studies) or will implement pre-construction and construction minimization measures to reduce the potential for negative indirect or direct impacts on bog turtles. Given these measures, direct take of bog turtle is not reasonably likely to occur. Additionally, the Project's habitat modification will not reach the threshold of take established in the regulatory definition of harm, thus indirect take will not occur as well.

SPLP has committed to installing a series of piezometers within Wetlands A54 and A55 to monitor groundwater conditions before, during, and after the HDD takes place. A detailed plan will be submitted to the Service for review prior to installation, and preconstruction groundwater monitoring will begin with installation of the piezometers within 2 weeks of receipt of USFWS approval of the plan and continue through construction and for 1-year following successful installation of the pipelines under these wetlands. SPLP will work with a QBTS to ensure installation and monitoring does not affect the bog turtle or alter its habitat within these wetlands.

Based on SPLP commitments to the protection and conservation of bog turtles and what is known about the presence and/or potential presence of this species in the vicinity of the Project areas, Tetra Tech on behalf of SPLP concludes that the measures taken on the PPP has reduced potential impacts to insignificant and discountable levels and the Project is not likely to take or adversely affect the bog turtle.

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Thank you for your assistance in this matter and we look forward to your review of the revised conservation plan. If you have any questions regarding this request, please feel free to contact me at 412.921.8167 or preston.smith@tetrattech.com.

Sincerely,



Preston R. Smith
Manager, Wetlands and Ecological Services

Attachment:

Bog Turtle Conservation Plan

CC:

Pam Shellenberger, USFWS
Kathy Gipe, PA FBC
Chris Embry, Sunoco Logistics;
Matt Gordon, Sunoco Logistics;
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