

VII
REVISED MITIGATION PLAN

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This Mitigation Plan includes all streams and wetlands to be impacted by the proposed work. For the Preferred Alternative (PA), all impacts are calculated within the reduced 20 feet of right-of-way (ROW) width for streams and 30 feet of ROW width for wetlands; for the Minimal-Degradation Alternative (MDA), the impacts associated with Streams 4 and 12 are not included since the proposed pipeline would be bored beneath them. Under the PA, temporary stream impact will be 121 linear feet and temporary wetland impact will be 0.06 acre. Under the MDA, temporary stream impact will be 81 linear feet and temporary wetland impact will remain 0.06 acre. These stream and wetland impacts will occur in the Cat Run-Captina Creek (HUC 050301060906) and Big Run-Ohio River (HUC 050301061208) subwatersheds, which are part of the Upper Ohio-Wheeling watershed (HUC 05030106).

Mitigation Requirements

According to the Ohio Environmental Protection Agency (OEPA), all stream impacts must be mitigated at 1.5:1, Category 1 wetlands must be mitigated at 1.5:1, and Category 2 wetlands must be mitigated at 2.0:1. Post-construction restoration to pre-existing conditions as described in the Alternatives Analysis included in this 401 WQC application package will account for 1:1 of the required mitigation ratio.

Preferred Alternative

The remaining 0.5:1 mitigation requirement for streams is 60.5 linear feet (i.e. 121 LF * 0.5). The remaining 0.5:1 mitigation requirement for Category 1 wetlands is 0.03 acre (i.e. 0.06 ac * 0.5). The remaining 1:1 mitigation requirement for Category 2 wetlands is 0 acre (i.e. 0 ac * 1). Total mitigation requirements include 60.5 linear feet of stream impact and 0.03 acre of wetland impact.

Minimal-Degradation Alternative

The remaining 0.5:1 mitigation requirement for streams is 40.5 linear feet (i.e. 81 LF * 0.5). The remaining 0.5:1 mitigation requirement for Category 1 wetlands is 0.03 acre (i.e. 0.06 ac * 0.5). The remaining 1:1 mitigation requirement for Category 2 wetlands is 0 acre (i.e. 0 ac * 1). Total mitigation requirements include 40.5 linear feet of stream impact and 0.03 acre of wetland impact.

In order to mitigate for impacts under Section 401 WQC, the OEPA requires the purchase of credits from a mitigation bank. However, credits can be purchased through the In-Lieu Fee (ILF) program when there are no mitigation banks available, which is the case for streams and wetlands in Ohio. According to the OEPA, the ILF program is not yet available for use in the Pittsburgh U.S. Army Corps of Engineers (USACE) District, but it should become active within 90 days.

ILF credit cost is not regulated by the OEPA, but is instead sensitive to property values associated with the 8-digit HUC watershed of the proposed mitigation site. The Nature Conservancy (TNC), an ILF sponsor, stated that the current proposed mitigation rate for stream impacts in the ILF program is \$240/stream credit and \$52,000/wetland credit for the Upper Ohio-Wheeling watershed. One stream credit is equivalent to one linear foot of stream impact and one wetland credit is equivalent to one acre of wetland impact. Since the ILF program has yet to be approved

in this USACE District, permittee-responsible mitigation may be used; the OEPA suggested working with the Captina Conservancy to meet the mitigation requirement.

Preferred Alternative

Mountain Gathering, LLC, needs to purchase 60.5 stream credits for mitigation, which amounts to \$14,520 (i.e. \$240/credit * 60.5 credits). Category 1 and 2 wetland credits must also be purchased; 0.03 wetland credits amounts to \$1,560 (i.e. \$52,000/credit * 0.03 credits). Total credit cost amounts to \$16,080.

Minimal-Degradation Alternative

Mountain Gathering, LLC, needs to purchase 40.5 stream credits for mitigation, which amounts to \$9,720 (i.e. \$240/credit * 40.5 credits). Category 1 and 2 wetland credits must also be purchased; 0.03 wetland credits amounts to \$1,560 (i.e. \$52,000/credit * 0.03 credits). Total credit cost amounts to \$11,280.

The Captina Conservancy

The Captina Conservancy is a non-profit land trust actively engaged in the conservation and restoration of the Captina Creek watershed (HUC 0503010609), part of the Upper Ohio-Wheeling watershed. The Captina Creek watershed coordinator, who works for the Belmont Soil and Water Conservation District (Belmont SWCD), indicated the need for financial assistance to implement two stream crossing projects that are currently in the design phase, which is being funded by the U.S. Fish and Wildlife Service. Belmont SWCD expects the projects to be ready for construction within a few months.

Belmont SWCD estimated that each of the stream crossing projects will cost \$100,000 to \$150,000 and there are not currently any other organizations looking to fund projects through the Captina Conservancy. Belmont SWCD does not have a clear timeline for when the remaining funds for these projects will be secured. As a result, Belmont SWCD suggested funding a riparian enhancement project that has a budget closer to that of the PA and MDA.

Stream Crossing Project – Joy Fork

The first project involves a road crossing through Joy Fork in the Bend Fork subwatershed (HUC 050103060903) of the Captina Creek watershed. The OEPA indicated Joy Fork is in excellent biological condition and recommended an aquatic life use designation of Cold Water Habitat based on baseline biological monitoring conducted in 2008 and 2009. Township Road 194 in Goshen Township, Belmont County, Ohio, crosses directly through Joy Fork; there is no bridge. This crossing causes at least 2.6 tons of sediment to erode into Joy Fork each year. One solution being considered to reduce this erosion is to install a box culvert with a high vent-to-area ratio, which should minimally obstruct the flow of water.

Stream Crossing Project – Crabapple Creek

The second project involves a road crossing through Crabapple Creek in the Piney Creek subwatershed (HUC 050103060904) of the Captina Creek watershed. The OEPA indicated Crabapple Creek is in excellent biological condition and recommended aquatic life use designations of Excellent Warm Water Habitat and Cold Water Habitat based on baseline biological monitoring conducted in 2008 and 2009. Township Road 84 in Washington

Township, Belmont County, Ohio, crosses Crabapple Creek over a submarine bridge with a low vent-to-area ratio; this type of bridge can contribute to the buildup of debris, increase the susceptibility of the area to flooding, and impede upstream fish migration. One solution being considered is to install a box culvert with a high vent-to-area ratio that should minimize impacts to Crabapple Creek.

Riparian Enhancement Project – Bend Fork

The riparian enhancement project involves stabilizing the stream bank of Bend Fork within the Captina Creek watershed. The OEPA indicated Bend Fork is in excellent biological condition and recommended an aquatic life use designation of Excellent Warm Water Habitat based on baseline biological monitoring conducted in 2008 and 2009. Widespread erosion is occurring along 250' of stream bank, generating sediment in downstream areas of Bend Fork along Township Road 101 in Washington Township, Belmont County, Ohio. Recommended restoration work includes planting vegetation and installing best management practices to stabilize the banks and reduce erosion. The design phase of this project has not yet been initiated and Belmont SWCD does not have a clear timeline for when this riparian enhancement project will be ready for implementation.

Discussion

Preferred Alternative

The ILF sponsor program should be in place within 90 days of the approval of this 401 WQC application package. If this is the case, Mountain Gathering, LLC, will purchase 60.5 stream credits and 0.03 wetland credits for a total amount of \$16,080 from TNC as an ILF sponsor. The Captina Conservancy intends to work with TNC to direct a portion of the ILF funds to their projects. If TNC has not been approved as an ILF sponsor within the timeframe of 401 WQC approval, Mountain Gathering, LLC, will develop an alternative Mitigation Plan or request an extension of time in which the stakeholders would identify a viable alternative. The work associated with the Buckeye Compressor Station to Monroe North Meter Site natural gas pipeline installation will not proceed until all stream and wetland credits are purchased and this compensatory mitigation plan is accepted by the OEPA.

Minimal-Degradation Alternative

The ILF sponsor program should be in place within 90 days of the approval of this 401 WQC application package. If this is the case, Mountain Gathering, LLC, will purchase 40.5 stream credits and 0.03 wetland credits for a total amount of \$11,280 from TNC as an ILF sponsor. The Captina Conservancy intends to work with TNC to direct a portion of the ILF funds to their projects. If TNC has not been approved as an ILF sponsor within the timeframe of 401 WQC approval, Mountain Gathering, LLC, will develop an alternative Mitigation Plan or request an extension of time in which the stakeholders would identify a viable alternative. The work associated with the Buckeye Compressor Station to Monroe North Meter Site natural gas pipeline installation will not proceed until all stream and wetland credits are purchased and this compensatory mitigation plan is accepted by the OEPA.