

*Atlantic Sunrise Project – PA DEP Chapter 105 Joint Permit Application
Transcontinental Gas Pipe Line Company, LLC
Wyoming County*

ATTACHMENT Q -2
SITE SPECIFIC MITIGATION PERMITTEE RESPONSIBLE PLANS
(UNDER SEPARATE COVER)

Revised July 2017

13.0 Financial Assurances

Performance Bond

FPR will establish a performance bond to ensure that PRM Site construction is completed and all success criteria are met. A sample performance bond is provided in Appendix H: Performance Bond. The financial assurance mechanism will be a surety bond for each PRM Site that will cover construction, maintenance and monitoring costs associated with each PRM Site, and will take effect 60 days after approval of the joint permit. The performance bonding entity has a rating of A+ (A.M. Best Ratings, 2010).

After construction of the PRM Site is completed and the as-built plans are approved by the PADEP and USACE, the bond will be reduced by 70 percent the first year the project meets its hydrologic performance standard. For each subsequent monitoring and maintenance year that demonstrates the PRM Site is meeting its hydrologic performance standard, the remaining 30 percent of the bond will reduce by a proportional amount over the remaining monitoring years. The bond will be closed once all performance standards are met, and final sign-off on the PRM Site has been provided by the USACE and PA DEP. The following table presents the performance bond release schedule and target milestones.

Table 7: Performance Bond Release Schedule and Target Milestones					
Type of Financial Instrument Used	Project Phase Covered	Specific Items Covered	Amount Reduced	Amount Available	Explanation
Surety Bond	Construction/ Development	Construction	0%	100%	100% of funds remain in-place until construction is complete
		Hydrologic Performance Standard First Attained	70%	30%	The first year the PRM Site attains its hydrologic performance standard 70% of the Bond amount is reduced
	Maintenance and Monitoring	Year 1-7 Maintenance and Monitoring	30%	0%	The remaining 30% of the Bond will cover Maintenance, Monitoring and Reporting for the remaining active phase of the PRM Site
		Reporting			

Long-term Stewardship Funding

Prior to construction of the Project, the Permittee will deposit \$35,000 into an escrow account to cover long-term stewardship of the PRM Site. These funds are sufficient to cover the full cost of long-term stewardship activities for the entire PRM Site. The total sum for this escrow amount includes all expenses for long-term management and allocates funds for invasive species management contingency funds.

14.0 References

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss. Technical Report Y-87-1. 207 p.

herbicides need to be used; mechanical weed control is still used to stop further spreading through seed if they are a species that has high germination rates.

Once the invasive species control has begun, additional seeding or planting would need to be conducted to re-introduce a native plant community into the area of concern. Depending on the type of invasive (i.e. broad leaf or monocot), replanting and reseeding strategies can be used to allow for continued chemical control of the invasive species in the area while still allowing the native species to germinate and develop.

The likelihood of this scenario is low; once established, native plant communities are actually quite resilient to invasion by invasive species as long as they are not disturbed or impacted. Invasive species issues on a restoration site tend to be most problematic during the first two years, because there is bare soil immediately available for germination and colonization immediately following construction, and there may be invasive species in the existing seed bank to germinate and establish. As such, maintenance activities are always the most intensive during the first two to three years to control any invasive species before they establish and expand to the point where they are problematic.

If the site is not meeting its performance standards for native herbaceous cover, additional seeding would be conducted. Again, the most important factor for establishing a healthy stand of upland herbaceous species is proper maintenance during the first two to years of establishment, specifically mowing in upland areas. This ensures enough light is reaching the developing seedlings, while also eliminating competition from annual weedy species that may be trying to colonize the site. In the wetland areas, mowing cannot be conducted, but mechanical weed control with weed whips can be used. Based on the anticipated hydrology in the wetland areas at the site, the floodplains will have water within 12 inches of the surface for the majority of the growing season. These conditions will discourage the growth of the majority of invasive species and annual weedy species usually seen at a restoration site. The primary invasive species that would react well to these conditions are reed canary grass (*Phalaris arundinacea*) and Phragmites (*Phragmites australis*). Phragmites spreads primarily through vegetative means, and has not been seen or documented within the PRM Site and therefore is not a concern. Reed canary grass is prevalent throughout North America, and will be monitored and controlled if seen on-site. Once the wetland community is well established, it is largely self-controlling and resistant to invasive species with minimal maintenance as long as it is not significantly disturbed.

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- Federal Register (2008) Compensatory Mitigation for Losses of Aquatic Resources; Final Rule. 33 CFR Parts 325 and 332. (Volume 73, Number 70). Rules and Regulations. Accessed 8/20/13.
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- Pennsylvania Department of Conservation and Natural Resources (PADCNR), Sugar and Towanda Creeks Rivers Conservation Plan: A Comprehensive Approach Toward Conserving and Enhancing the Natural, Recreational, and Cultural Resources. July 2009. http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_00214_6.pdf
- United States Army Corps of Engineers, New England District. 1993. Highway Workbook Supplement: Wetland Functions and Values – A Descriptive Methodology Approach.