8.0 Funding Assurances

8.1 Introduction

This chapter provides a discussion of costs to implement the MSHCP, and the financial mechanisms that NiSource will use to assure funding. Although NiSource will have the ability to directly undertake mitigation activities through its operating budget, mitigation and associated tasks will primarily be assured through a trust account established by NiSource into which NiSource will make scheduled payments (Mitigation Account). Mitigation and other costs also will be assured through a secondary trust fund account established by NiSource that will serve as a replenishing reserve in the event that the primary fund becomes overdrawn (Reserve Account) or emergency funds are needed for any other reason. Both accounts will be administered by the National Fish and Wildlife Foundation (NFWF) and are collectively called the "MSHCP Fund."[1] NiSource will be obligated to annually ensure that both accounts contain sufficient monies to compensate for mitigation cost increases for such circumstances as underestimates, changed circumstances, and adaptive management measures. All other costs of implementing the MSHCP will be assured through NiSource's credit facility, or, as necessary, through a letter of credit. *See* Section 8.4.2, below.

8.2 Costs to Implement MSHCP

NiSource's cost to implement the MSHCP will vary from year to year depending on the nature and extent of the covered activities undertaken. MSHCP implementation expenses fall into five general categories:

- Administrative;
- Mitigation;
- MSHCP project costs;
- Adaptive management; and
- Changed circumstances.

Each of these categories is discussed in more detail below.

8.2.1 Administrative Costs

The administrative costs associated with this MSHCP include program management and oversight, training, general compliance monitoring, and software costs. The administrative costs are listed specifically in **Table 8.2.1-1**.

Most of the administrative costs associated with the MSHCP are personnel costs. NiSource intends to administer the MSHCP using existing staff and does not expect personnel cost increases. The NiSource employees who will manage and oversee

[1] NFWF is a private, non-profit, tax exempt organization chartered by Congress in 1984 that sustains, restores, and enhances the Nation's fish, wildlife, plants and habitats through leadership conservation investments with public and private partners.

MSHCP and ITP compliance (HCP Coordinators) already spend their time working on natural resources permitting and compliance issues, including ESA compliance through Section 7. Although the nature of the staff's ESA related tasks will change from compliance through Section 7 to compliance through Section 10, NiSource does not expect a significant increase in the number of hours the HCP Coordinators will spend on tasks relating to ESA compliance. In addition to the HCP Coordinators, numerous other NiSource employees will attend the required MSHCP training programs. The costs associated with this training are already included in NiSource's existing staff overhead expenses.

A generalized estimate of non-personnel administrative expenses is $140,000 in the first year of MSHCP implementation and $120,000 annually thereafter (Table 8.2.1-1). This includes required compliance monitoring for all AMMs and mitigation projects as well as certain, but not all, effectiveness monitoring.2 Another non-personnel administrative expense is NFWF's administrative fee to administer and manage the Mitigation and Reserve Accounts.

8.2.2 Mitigation Costs

NiSource's greatest MSHCP implementation expense will be for compensatory mitigation, which will be funded through NiSource's funding budget, i.e., for mitigation activities directly undertaken by NiSource and from the Mitigation Account or the Reserve Account, if such becomes necessary. A summary of the mitigation type, amount, cost and funding schedule is provided in **Tables 8.2.2-1 and -2.** NiSource's mitigation obligations are more specifically described in Chapter 6 and will include, among other things, some or all of the following:

- Conservation/protection of habitat through acquisition and/or easements;
- Habitat restoration;
- Propagation, augmentation and reintroduction of certain take species; and
- Mitigation effectiveness monitoring and adaptive management.

The compensatory mitigation is divided into two components; *O&M/Aggregate* (O&M) and *Project-Specific*. The O&M mitigation is designed to compensate for impacts from ongoing operations of existing facilities (e.g., ROW maintenance, minor erosion for the ROW, vehicles traveling on the ROW, etc.). Since ROW maintenance activities typically occur on a seven-year cycle and the location of the existing ROW is known, the mitigation debt for these activities can be more readily estimated. Therefore, all of the compensatory mitigation for these activities over the entire 50-year term of the ITP is scheduled to be accounted at the beginning of the permit term with

[2] In most cases, existing NiSource personnel and contractors with expertise in wildlife issues will be responsible for compliance monitoring. Compliance monitoring is part of NiSource personnel's ordinary job functions and will continue to be when the ITP becomes effective. Compliance monitoring may also be a component of mitigation costs where third parties undertake mitigation projects. Similarly, effectiveness monitoring also may constitute an administrative cost or fall within the category of mitigation costs. For instance, tracking the take of species or habitat is an administrative cost but evaluating the efficacy of AMMs may be part of a project cost for large capital projects. Likewise, monitoring the effectiveness of mitigation measures is categorized as a mitigation cost.

NiSource paying the costs of this mitigation within the first seven years of MSHCP implementation. *See* Section 8.4.1, Step 1.A., below, for more details. It is anticipated that the species will accrue benefits early and often long before impact or take occurs through this funding schedule and thus heighten the probability of a net benefit to the various species.

As shown in **Tables 8.2.2-1** and **8.2.2-2**, a large number of the proposed mitigation projects involve NiSource obtaining conservation easements. Estimated costs for these easements were developed in conjunction with input from state department of natural resources personnel (Ohio and Virginia) and Service staff. Other costs, such as bog turtle mitigation sites, are based on NiSource's past experience in wetland mitigation projects and estimates provided by the Service from similar past mitigation projects.

As shown in **Table 8.2.2-1**, NiSource estimates that O&M mitigation funding in 2010 dollars will be $784,595 total with NiSource providing the funding for such amount over the first seven years of MSHCP implementation by depositing an estimated $112,085 annually into the Mitigation Account. Due to the potential for inflation and the changes in land values, the actual amount deposited in each of the first seven years will vary based on the then-current costs of the identified mitigation projects.

Project-Specific mitigation is designed to compensate for impacts resulting from certain construction or non-recurring maintenance activities. Examples include impacts to MSHCP mussels during installation of a stream crossing or the clearing of potentially suitable habitat for Indiana bats while the bats are present during a pipeline looping project. The specific impacts, and thus the amount of compensation required, will be measured on a project-by-project basis and any required mitigation ratio will be applied to determine the overall amount of mitigation required for that project. These impacts, mitigation ratios, and mitigation project types are described in detail by species in Chapter 6. A number of the mitigation projects may involve NiSource obtaining conservation easements. Funding for this compensatory mitigation component will be paid into the Mitigation Account annually prior to the impact occurring. A summary of the mitigation type, amount, and cost is provided in **Table 8.2.2-2.** As shown, NiSource expects that the total Project-Specific mitigation funding over the life of the permit would range from $0 to $27,848,800. The estimated cost is in 2010 dollars, based upon 2010 land and transaction costs. The actual mitigation costs to NiSource, however, will vary with inflation, the price of land, and various mitigation transaction and project costs. To account for these fluctuations, NiSource will calculate its mitigation obligations on an annual basis using land values that are current for the evaluated year. NiSource would then estimate costs and make deposits into the MSHCP Fund before work could be taken on any project as provided in Section 8.4.1.

8.2.3 MSHCP Project Costs

Project costs include MSHCP compliance costs associated with individual O&M or construction projects, such as expenses associated with AMMs, surveying and certain effective monitoring. The cost of implementing projects and their associated AMMs is expected to be generally equivalent to existing project costs and their associated ESA compliance obligations under Section 7. The MSHCP program will create significant

program efficiencies for NiSource that should more than offset the small costs associated with surveying, monitoring, and implementation of the AMMs that are different than existing obligations. (Most of the AMMs are already being implemented on a project-by-project basis as part of NiSource's ESA and other environmental compliance programs.)

8.2.4 Adaptive Management

NiSource's adaptive management program is described in detail in Chapter 7. Adaptive management refers to potentially needed changes in the MSHCP occasioned by new information gathered during the implementation of the MSHCP, improved modeling and new technology. Adaptive management may impact MSHCP compliance by:

- Changing the way that AMMs are implemented during the course of the project according to what is learned;
- Altering mitigation projects; or
- Requiring other changes to the MSHCP program.

Other than effectiveness monitoring and species surveys, costs due and any funding needed for adaptive management are, by their very nature, impossible to estimate because they are dependent on future events and on information that will not be available until after the MSHCP is implemented and performance is monitored. The financial assurances used to secure funding for adaptive management will vary depending on whether they relate to mitigation or other aspects of MSHCP implementation, such as AMMs or the take calculations.

8.2.5 Changed Circumstances

Changed circumstances refer to external circumstances that could impact the MSHCP's operating conservation program. Changed circumstances are described in detail in Chapter 10. Examples of changed circumstances include certain droughts, floods, invasive species, and change in knowledge about species range. The costs associated with changed circumstances are difficult to predict because they are dependent on future events. The financial assurances used to secure funding for changed circumstances will vary depending on whether they relate to mitigation or other aspects of MSHCP implementation, such as AMMs or the take calculations.

8.3 NiSource Gas Transmission and Storage Funding

NiSource's projects are financed using cash on hand or corporate bonds and then are reimbursed by NiSource's natural gas customers. Obtaining an ITP should not alter the means by which NiSource finances its projects. As explained below, regardless of whether take is authorized under ESA Section 7 or 10, the costs associated with the authorization will always be incorporated into NiSource's operational costs.

NiSource's parent, NiSource Inc., is a Fortune 500 energy holding company whose subsidiaries provide natural gas, electricity, and other products and services to approximately 3.8 million customers located within a corridor that runs from the Gulf Coast through the Midwest to New England. Operating income for NiSource Inc.'s Gas

Transmission and Storage Operations segment (the entity referred to throughout this document as "NiSource" and the applicant for the ITP) were $388.5 million for 2009, $369.7 million for 2008, and $362.0 million for 2007.

NiSource operates an interstate natural gas transmission and storage business. All aspects of this business, including the funding of projects, are heavily regulated by Federal law. FERC is the lead agency for all matters of constructing and operating interstate natural gas facilities pursuant to the Natural Gas Act. FERC requires NiSource to provide cost estimates and financing plans as part of any application for a Certificate of Public Convenience and Necessity. Thus, it is not possible for NiSource to proceed without assurance that adequate funding is in place for the entire project (including environmental compliance). 18 C.F.R. § 157.14. The costs described in the narrative above are not new expenses for NiSource. Over the years, NiSource has complied with the ESA on a project-by-project basis, typically through Section 7. The cost to conduct surveys and implement species conservation measures are currently included in NiSource's project budget along with other project expenses. Obtaining an ITP and implementing the MSHCP will not alter this practice.

8.4 Funding Assurances

In addition to being required to provide adequate funding assurances to FERC prior to engaging in any project requiring a Certificate of Public Convenience and Necessity, NiSource can demonstrate its ability to adequately fund its MSHCP program as required by the ESA and the Service's implementing regulations.

NiSource has chosen a suite of mechanisms to cover its various obligations under the MSHCP. Foremost, it has elected to use trust funds to assure funding for mitigation as well as for adaptive management and changed circumstances associated with mitigation. *See* Section 8.2.2 and **Table 8.4-1**, below. Unlike a letter of credit or a performance bond, which serve as contingencies in the event there is a failure to perform an obligation, a trust fund maintains the corpus in its entirety with the expectation that the funds will be available and used for specified purposes. NiSource chose this mechanism to assure that the required funds would be set aside and available in the most efficient way possible. NiSource will establish the MSHCP Fund with two subaccounts. NiSource has built in safeguards to ensure that the amount of available funds is commensurate with the mitigation tasks to be undertaken. The Reserve Account will be funded in the amount of at least $100,000 in case the Primary fund is overdrawn or some emergency arises.

All other MSHCP costs (Section 8.2.1 and 8.2.3), including administrative costs, project costs, as well as some of the adaptive management and changed circumstances costs, will be assured through a NiSource's corporate credit facility, and if it becomes necessary, through a Service-approved letter of credit. *See* Section 8.4.2, below, for more details. The credit facility or letter of credit will assure that these obligations are satisfied in the unlikely event that the operation budget is not sufficient.

As discussed below, if NiSource fails to maintain the appropriate balances in the trust accounts, the Service may, among other things, suspend all or part of the ITP. The Service may also take such actions if the minimum criteria for NiSource's credit facility are not met, or if the required letter of credit is not secured. *See* Section 8.4.2, below.

Table 8.4-1 below summarizes the funding assurances for the financial obligations in the MSHCP:

Table 8.4-1 Funding Assurances

Funding Assurance	MSHCP Obligation For Which Assurance is Required
Mitigation Trust Fund + Reserve Fund	Mitigation [8.2.2] Adaptive Management related to Mitigation [8.2.4] Changed Circumstances related to Mitigation [8.2.5]
Credit Facility or Letter of Credit	Personnel Administrative Costs [8.2.1] Non-Personnel Administrative Costs [8.2.1] Project Costs [8.2.3] Adaptive Management related to AMMs or take calculations [8.2.4] Changed Circumstances related to AMMs or take calculations [8.2.5]

8.4.1 National Fish and Wildlife Foundation (NFWF) Mitigation and Reserve Accounts

Upon issuance of the ITP and before implementation of the MSHCP, NiSource will execute an agreement with the NFWF to establish two associated subaccounts and a third subaccount and to identify NFWF as an administrative fiduciary with respect to the funds. A copy of the proposed trust agreement with NFWF is provided as **Appendix I**. The primary subaccount will be the Mitigation Account. It will largely be drawn upon to fund future mitigation efforts undertaken by third parties in conjunction with the Mitigation Panel (Chapter 5).[3] The secondary subaccount will be the Reserve Account, which will be used by NiSource or, if necessary, the Service, should the Mitigation Account become overdrawn or to finance any unfunded obligations for mitigation, monitoring, adaptive management, or changed circumstances. *See* Step 3, below. All of NFWF's costs and fees to administer the Accounts will be borne by NiSource independent of the costs or mitigation criteria specified in Chapter 6. In other words, the payment of the administrative fees shall be in addition to, and not deducted from, the amounts that will be deposited into the accounts to implement the MSHCP. NiSource will contribute to the Mitigation Account and Reserve Account using the following three-step process.

STEP 1: NiSource will make deposits to the Mitigation Account for O&M and Project-Specific mitigation costs. *See* Table 8.4.1-1.

[3] As described in Chapter 6, NiSource can directly undertake selected mitigation activities through its operating budget. In such cases, NiSource is not obligated to contribute that amount to the Mitigation Account because doing so would be duplicative. Alternatively, NiSource could include these costs as part of its annual estimate for the Mitigation Account and make any necessary adjustment under Step 2, to account for mitigation activities it undertakes directly.

A. **Annual deposits for O&M mitigation**: As discussed more fully in Section 6.2 of Chapter 6 and 8.2.2, above, NiSource has agreed to fund mitigation projects totaling an estimated $784,595 in actual 2010 dollars to compensate for the impacts from ongoing operations of existing facilities over the life of the ITP. Although the proposed permit term and, thus the period of impact, is 50 years, NiSource will make all O&M mitigation payments in the first seven years of the permit issuance. O&M projects are intended to be executed near the time the funding is deposited. Thus, incremental cost increases will be dealt with during this seven-year time span to fully fund the required mitigation for the permit duration. NiSource will provide financial assurances for the O&M mitigation for the entire 50-year term of the permit with seven cash deposits as shown in **Table 8.2.2-1**. These deposits will be made into the Mitigation Account on or before January 15 of the first seven years of the permit.

B. **Annual deposits for non-Section 7(c) project mitigation**: On or before March 31 of every year that the ITP is in effect, NiSource will deposit money into the Mitigation Account to provide financial assurances for mitigation that is expected to arise from the small capital and O&M projects that do not require a certification under Section 7(c) of the Natural Gas Act. Projects that fall into this category include the following:

- Short-age and condition replacements of existing facilities;
- Relocations forced by government agencies (e.g., transportation departments);
- Projects conducted under NiSource's FERC blanket certificate; and
- Safety/integrity related projects.

NiSource will determine the amount of mitigation required by these non FERC Section 7(c) projects and the anticipated cost of this mitigation using the following process:

1. By fall of each year, NiSource will provide its Natural Resources Permitting Department with a list of projects planned for the following year. Each project will include a completed *Project Environmental Information Form* (PEIF), which describes the project and expected effects on the landscape.
2. A review of each project will be conducted through the use of IPaC (or other means if IPaC is not available) and species-specific information contained in Section 6.2 of Chapter 6 to determine if any take will occur for MSHCP species.
3. If, after implementation of mandatory AMMs, there still will be take of species, the use of available non-mandatory AMMs will be considered as described in Section 5.2.1 of Chapter 5. Decisions regarding not using non-mandatory AMMs will be documented.
4. Any take remaining after these steps are completed will then be totaled and the appropriate type and amount of compensatory mitigation will be

5. The costs for this mitigation will be estimated in accordance with the guidance provided in **Table 8.2.2-2.**
6. By March 31 of each year, NiSource will send the Service, by certified mail, a report documenting the results of the review described in steps 1-5, the estimated take from its annual projects, its anticipated mitigation obligations by type, and the expected cost of mitigation and monitoring obligations.
7. Prior to commencing construction on the project, NiSource shall deposit into the Mitigation Account money sufficient to cover anticipated mitigation for the year's construction.

C. **Deposits for mitigation associated with Section 7(c) projects**: Examples of Section 7(c) projects include the following:

- Pipeline loops and/or compressor station modifications to increase system capacity;
- Pipeline replacements with larger or smaller size pipeline to increase/decrease system capacity;
- New facilities to provide natural gas service to existing or new customers; and
- Storage field enhancements to increase service for existing and/or new customers.

Prior to beginning construction on any Section 7(c) project, NiSource will estimate the amount and type of take and mitigation associated with the project and the cost of those mitigation obligations. Steps 2-5 above will be used for this estimate. NiSource will prepare a report documenting these obligations and will send this report to the Service by certified mail no less than 15 days after receiving its Section 7(c) certificate from FERC, and no less than 15 days before commencement of construction on the project. If the project involves construction over multiple years, NiSource will break out its expected take, mitigation obligations, and mitigation/monitoring costs on an annual basis. Prior to commencing construction on the project, NiSource shall deposit into the Mitigation Account money sufficient to cover anticipated mitigation and monitoring obligations for the first year's construction. If the project involves construction over multiple years, NiSource will deposit into the Mitigation Account money adequate to cover mitigation obligations for the second and each subsequent year at least 15 days prior to when the obligations are expected to arise.

STEP 2: NiSource will make necessary and regular adjustments to ensure the Mitigation Account is fully funded.

If NiSource becomes aware of new or increased costs for mitigation because of changed circumstances, adaptive management, refined estimates, increased project impacts, documentation of take, or any other cause, as discussed in Chapters 7, 10, and

elsewhere in this MSHCP, NiSource will prepare a report documenting these new or additional obligations and will send this report to the Service by certified mail no less than 60 days after learning of the new obligation. Within this same time period, NiSource shall deposit into the Mitigation Account money sufficient to cover new or increased mitigation obligations because of changed circumstances, adaptive management, refined estimates, increased project impacts, documentation of additional take or any other cause. If the newly identified obligation is a continuing obligation, it will be incorporated into the appropriate category above and dealt with as described for that category. If the Service determines that new or increased costs for mitigation are required because of changed circumstances, adaptive management, refined estimates, increased project impacts, documentation of take or any other cause, as discussed in Chapters 7, 10 and elsewhere in this MSHCP, the Service may notify NiSource and request a report from NiSource concerning these new or additional obligations. NiSource will respond to this request within 60 days by certified mail. However, not every change due to adaptive management is expected to have a cost impact.

Within this same time period, if NiSource agrees with the request, NiSource shall deposit into the Account money sufficient to cover the new or increased costs for mitigation, project impacts, documentation of additional take, or any other cause. The time frames identified in this paragraph may be shortened by mutual agreement of the parties in the event of an emergency affecting the purpose or values of the intended mitigation or the affected species.

Failure of the Service and NiSource to agree about new or additional obligations could result in, among other things, the suspension of all or a portion of the permit by the Service. On the other hand, if NiSource's mitigation obligations have been fully satisfied for a given year at a lower cost than was anticipated at the beginning of the year, NiSource shall have the right to withdraw the remaining balance of that annual mitigation deposit from the Account on or after January 1 of the subsequent year, or NiSource may elect to leave the balance in the Account as contribution toward the next year's annual mitigation estimate.

STEP 3: NiSource will establish a secondary Reserve Account with NFWF that will be perpetually maintained in the amount of at least $100,000, as adjusted for inflation.

NFWF will require an initial payment of $100,000 to establish the Reserve Account. This amount will be deposited into a secondary subaccount, separate from the Mitigation Account. NiSource agrees that funds in the Reserve Account will be maintained at this amount to be used by NiSource or, if necessary, the Service, to finance any unfunded obligations for mitigation, monitoring, adaptive management, or changed circumstances. The initial $100,000 will provide a pool of cash for NiSource to draw upon if an unexpected situation develops or an underestimate becomes evident. However, it is possible that the $100,000 will never be used during the life of the permit. Additionally, every five years, NiSource will deposit a sum of money into the Fund to account for inflation, as reflected by the consumer price index. The goal shall be to maintain a balance of $100,000 in 2010 dollars.

Before utilizing any portion of the $100,000 balance (as adjusted for inflation) in the Reserve Account, the Service or NiSource will provide one another 14 days' notice of its respective intent to do so. As part of its notice, or in response to one it receives, the Service will inform NiSource of its obligation to replenish the Reserve Account within 45 days of any withdrawal. The Service will also inform NiSource that failure to do so would provide valid grounds to suspend and\or revoke the permit in accordance with 50 C.F.R. §§ 13.27 and 13.28.

8.4.2 NiSource Credit Facility; Letter of Credit

All MSHCP obligations unrelated to mitigation will be financed through NiSource's operational budget. The NiSource Credit facility will be the financial assurance that these funds will be available. A letter of credit of sufficient duration and amount will be secured in lieu of the Credit Facility, if necessary.

NiSource Inc. has a revolving credit facility with a syndicate of banks in the amount of $1.5 billion. As of December 31, 2009, $1.312 billion of credit was available under the credit facility. The facility provides a reasonable cushion of short-term liquidity for general corporate purposes, including meeting cash requirements driven by volatility in natural gas prices. NiSource Inc.'s current credit facility terminates on July 7, 2011, but NiSource Inc. anticipates that it will maintain large credit facilities throughout the term of the ITP, absent a significant structural change in the natural gas industry.

If NiSource obtains an ITP from the Service, NiSource Inc. agrees to guarantee all funding obligations under this MSHCP. If necessary, NiSource Inc. will borrow from its $1.5 billion credit facility to secure funding for the MSHCP. NiSource Inc. further agrees that, should the available balance in NiSource Inc.'s credit facility ever fall below $25 million or should the credit facility be allowed to lapse, NiSource will notify the Service in writing within 7 days and will obtain a $250,000 letter of credit,[4] in a form acceptable to the Service, within 30 days of such fall or lapse. Should NiSource fail to obtain this letter of credit, such failure would provide valid grounds to suspend and\or revoke the permit in accordance with 50 C.F.R. §§ 13.27 and 13.28.

[4] $250,000 is the approximate amount that NiSource expects to spend annually on MSHCP-related mitigation during the initial years of the permit. A $25 million threshold was chosen because $25 million is one hundred times the $250,000 annual expenses (100:1 ratio). Every five years, NiSource will reevaluate its expected mitigation costs and the adequacy of the financial assurances. If actual mitigation costs differ from what is presented here, NiSource will change the credit facility threshold and the amount of the letter of credit to maintain the 100:1 ratio. For example, should future annual costs be estimated to be $500,000 annually, the minimum threshold for the credit facility would be $50 million and the amount of the letter of credit would be $500,000.

Table 8.2.1-1 Estimated Implementation, Training, Monitoring and Reporting Costs

Description	Notes	One Time Costs	Annual Costs
Personnel			
Manager – NRP	1	-	$12,500
Environmental Specialist	2	-	$10,000
Other EHS personnel	3	-	$2,500
Corporate EHS Staff consultation	4	-	$5,000
Audit	5	-	-
Training			
Trainers	6		$15,000
Training Materials	7		$2,730
Travel & Meetings	8	$15,000	$8,270
Trainee Time			Covered by existing overhead
Hardware	10	$5,000	
Monitoring and Reporting			
MSHCP annual report	11		$1,500
Monitoring	12		$50,000
NFWF Trust Account	13		$10,000
Total		**$20,000**	**$120,000**

Notes: All costs furnished are only estimates. Actual costs may vary.

(1) 1/12 FTE initially with more involvement should FERC 7(c) projects be contemplated.
(2) 10% of FTE, staff time for data base entry and tracking, reporting.
(3) 5% involvement of other EHS personnel.
(4) Corporate EHS involvement as needed.
(5) Potential internal EHS audit for compliance every five years.
(6) Two trainers conducting 10 sessions to implement, 3 annual sessions average following initial year.
(7) 150 copies @ $8/copy, 300 flip books for field use @ $3/copy, and 10 data base training materials in years 1, 10, 25, and 40 @$1.80/copy and other miscellaneous training materials at $586.80
(8) One time cost for Learning Management System (LMS) module training and training sessions. After initial year a continuing cost for maintaining LMS training and other computer training. This also includes minor cost for any "tailgate" field meetings for training purposes.
(9) New software for staff to implement and use IPAC and other software systems.
(10) New hardware that may be required to maintain compliance and use of systems.
(11) Estimated cost of production of annual report.
(12) Estimated cost for activity monitoring species specialists (e.g. bog turtle expert). Does not include environmental compliance inspections.
(13) Estimated internal cost for fees and maintenance of trust fund.

Table 8.2.2-1 Cost and Funding Schedule for Aggregate/O&M Mitigation Projects

Species	Mitigation[b]	Aggregate or O&M Mitigation Cost by Year[a]						
		2011	2012	2013	2014	2015	2016	2017
Indiana bat	None	$0	$0	$0	$0	$0	$0	$0
Bog turtle	restore up to 20 habitat sites (funding for 13 known sites shown)	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$50,000
Madison cave isopod	None	$0	$0	$0	$0	$0	$0	$0
Clubshell	streambank conservation easement (8.1 ac)	$2,314	$2,314	$2,314	$2,314	$2,314	$2,314	$2,314
Northern riffleshell	streambank conservation easement (6.1 ac)	$1,743	$1,743	$1,743	$1,743	$1,743	$1,743	$1,743
Fanshell	streambank conservation easement (11.1 ac)	$3,171	$3,171	$3,171	$3,171	$3,171	$3,171	$3,171
James spinymussel	streambank conservation easement/restoration[c] (1.5 ac)	$429	$429	$429	$429	$429	$429	$429
Sheepnose	streambank conservation easement (15.1 ac)	$4,314	$4,314	$4,314	$4,314	$4,314	$4,314	$4,314
Nashville crayfish	streambank conservation easement (0.4 ac)	$114	$114	$114	$114	$114	$114	$114
American burying beetle	Propagation and release	$0	$15,000	$0	$0	$0	$0	$0
Total		**$112,085**	**$127,085**	**$112,085**	**$112,085**	**$112,085**	**$112,085**	**$112,085**

a. Funding to be provided by January 15th of specified year.
b. Acquisition of conservation easements valued at $2,000/acre. However, in 2009 NiSource acquired such easements for less than $1,000 per acre.
c. Streambank restoration and tree planting valued at $500/acre per discussion with Service staff.

Table 8.2.2-2 Cost and Funding Schedule for Project Specific Mitigation Projects

Species	Project Specific Mitigation Total (50 years)[a]	Estimated Total Cost Range for 50 Year ITP Duration[b]
Indiana bat	Conserve 8,907 to 10,960 ac of suitable Indiana bat (including 1 hibernacula)	$0 - $20,000,000[c]
Bog turtle	Restore and protect 5 habitat sites	$0 - $250,000
Madison cave isopod	Conserve/restore karst surface features near 2 known isopod occurrences	$0 - $100,000
Clubshell	streambank conservation easement and restoration (187.5 ac protect, 187.5 ac protect/restore)	$0 - $843,750[d]
Northern riffleshell	streambank conservation easement and restoration (442.2 ac protect, 442.2 ac protect/restore)	$0 - $1,989,900[d]
Fanshell	streambank conservation easement and restoration (477.9 ac protect, 477.9 ac protect/restore)	$0 - $2,150,550[d]
James spinymussel	streambank conservation easement and restoration (57.6 ac protect, 19.2 ac protect/restore)	$0 - $316,800[e]
Sheepnose	streambank conservation easement and restoration (486.4 ac protect, 486.4 ac protect/restore)	$0 - $2,188,800[d]
Nashville crayfish	streambank conservation easement and restoration (2.0 ac protect, 2.0 ac protect/restore)	$0 - $9,000[d]
American burying beetle	None	$0
Total		**$0 to $27,848,800**

a. Mitigation projects listed represent only one of several options for each species. Other mitigation alternatives are presented in Section 6.2.
b. Range represents reasonable worst-case scenario as used to calculate total amount of requested take (*see* Chapter 6). NiSource anticipates total cost to trend towards the lower end of range through the use of non-mandatory AMMs, avoidance through enhanced project planning, and due to the conservative approach used to calculate the effect of potential activities.
c. Acquisition of conservation easements valued at $2,000/acre. However, in 2009 NiSource acquired such easements for less than $1,000 per acre.
d. Acquisition of conservation easements valued at $2,000/acre. However, in 2009 NiSource acquired such easements for less than $1,000 per acre. Streambank restoration and tree planting valued at $500/acre per discussion with Service staff.
e. Acquisition of conservation easements valued at $4,000/acre. Streambank restoration and tree planting valued at $500/acre per discussion with Service staff.