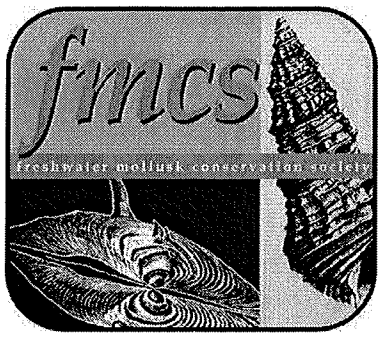

FRESHWATER MOLLUSK CONSERVATION SOCIETY
1417 HOFF INDUSTRIAL DR.
O'FALLON, MO 63366

December 13, 2011

Lisa Mandell
U.S. Fish & Wildlife Service
Ecological Services
5600 American Blvd. West
Suite 990
Bloomington, MN 55437-1458
permitsR3ES@fws.gov

RE: NiSource Multi-Species Habitat Conservation Plan

Dear Ms. Mandell;

The Freshwater Mollusk Conservation Society (FMCS) is dedicated to the conservation of, and advocacy for, freshwater mollusks, North America's most imperiled animals. FMCS is an international professional scientific society made up of state, federal, academic, and private scientists and conservationists, many of whom work directly with the nearly 150 endangered and threatened mollusks. Our members are considered experts in the conservation and recovery of freshwater mollusks.

NiSource, Inc. (NiSource), an Indiana-based natural gas pipeline, transmission, storage and distribution company, has submitted a draft multi-species Habitat Conservation Plan (HCP) to the U.S. Fish & Wildlife Service (FWS) for review and approval. Natural gas pipeline system operations covered in this plan span 14 states extending from New York to Louisiana and Ohio to the Atlantic Ocean. This HCP would cover operations, maintenance, and new construction activities, taking the place of individual project reviews for possible endangered species impacts. The HCP requests incidental take authorization from FWS for 10 of the 43 species considered, including 5 native mussel species. The HCP is built around the concept that conservation needs of the covered species can be better addressed with a regional, coordinated approach than site specific reviews. We agree that regional and system level analyses better address the

conservation issues from development projects, but enough site specific consideration must be maintained to prevent irreparable harm to a species or critical habitat for a population.

The draft HCP proposes an Incidental Take Permit (ITP) duration of 50 years. This timeframe seems entirely too great given the uncertainties of species status, environmental impact knowledge, and development patterns over time. Several of the mussel species considered by the HCP have very few viable population occurrences and any one of these may become even more critically important in the event a separate population is lost due to unrelated activities. The science knowledge informing the severity, scope, and irreversibility of environmental impacts on native mussels is incomplete and new information may alter the estimates of take used in the HCP. Finally, the cumulative effects of other human development activities are likely to exert environmental stresses on mussel communities, including the covered species, that render the level of take proposed unsustainable. Therefore, we would recommend a substantially shorter (e.g. 10 year) initial duration of the ITP which is renewable in 10 year increments by the FWS upon successful implementation of conservation measures by NiSource and conclusion that critical threat factors have not substantially changed.

The mitigation hierarchy should be rigorously applied by NiSource as a condition of the HCP approval. As outlined by Kiesecker et al. (2010), avoidance of habitats critical to the population viability of imperiled species is the first step in determining the location of development activities or operational techniques used. By definition, any location that supports federally listed species would be a conservation priority and should be evaluated for unacceptable impacts and possible avoidance measures. The draft HCP does not explicitly state NiSource's approach to meeting the avoidance step of the mitigation hierarchy. Clearly, this would require mussel surveys to be performed in any potential covered species habitat prior to beginning of an activity with an environmental impact to streams.

If the decision is made to issue the permit for more than 10 years duration, all proposed, candidate, and threatened species should be considered in the covered species analysis. All of these species are imperiled and could well be listed within the 50 year duration proposed. Therefore, consideration should be given at the outset if there is no explicit mechanism to review the appropriateness of the covered species list at frequent intervals.

The monitoring component in the draft HCP is completely inadequate. NiSource proposes to monitor only the first 3 events of a given management activity (e.g., open ditch stream crossing) and claim, if the results are within the expected criteria, that activity and approach will always be successful. Given the spatial extent of the HCP area and the widely varying topography, geology, hydrology, and ecology, there needs to be far more monitoring to validate impact minimization and effectiveness of control measures. In addition, NiSource proposes to monitor some environmental characteristics, such as substrate stability and bank condition, for only 3 years post-impact. The variability of hydrology over multiple years and the long life spans of many mussel species (Cummings and Mayer, 1992), including long time to reproductive ages (Haag and Staton, 2003), requires much longer monitoring commitments.

NiSource proposes using propagation and augmentation of mussels as a mitigation strategy for species impacts. However, the draft HCP makes no references to supporting the

advancement of this conservation approach through ongoing support of propagation facilities or research and development of improved techniques. Propagation and augmentation are developing conservation techniques and consensus methods are not available yet for individual species or mussel assemblages. In order to render the approach a stronger conservation tool, NiSource should develop a funding/support mechanism to further the capabilities and effectiveness of propagation and augmentation techniques.

One additional technical point that should be incorporated into the HCP is the implementation of time-of-year restrictions (TOY) on instream activities. Mussel reproduction occurs in defined periods throughout the year (Neves and Widlak, 1988) and destructive in-stream activities should be prohibited during these times. All in-stream activities should be prohibited during the primary spawning and peak glochidial (larval) release times, taking into account that there may be both short-term and long-term brooders in the mussel communities of these systems. FWS should set these TOY restrictions in cooperation with appropriate state agencies and explicitly state them (possibly by reference to state guidelines or regulations as some states like Virginia already enforce TOY's) in the HCP.

We appreciate your consideration of these comments in the review of the NiSource Multi-Species Habitat Conservation Plan and the Incidental Take Permit. Our primary concern is the viability of the globally unparalleled mollusk fauna in eastern North America. Over 70% of native mussel species in North America are imperiled and 17 species known from the proposal area are federally listed as endangered. Careful consideration must be given to ensure the continued existence of these species and the greater health of our aquatic ecosystems.

Sincerely;

Caryn Vaughn, President
Freshwater Mollusk Conservation Society

Literature Cited:

Cummings, K. S., and C. A. Mayer. 1992. Field Guide to Freshwater Mussels of the Midwest. Illinois Natural History Survey Manual 5. 194 pp.

Haag, W. R., and J. Leann Staton. 2003. Variation in fecundity and other reproductive traits in freshwater mussels. *Freshwater Biology*, 48, 2118-2130.

Neves, R. J., and J. C. Widlak. 1988. Occurrence of glochidia in stream drift and on fishes of the upper North Fork Holston River, Virginia. *Amer. Midland Naturalist*, 119(1), pp. 111-120.