

Authorization for Incidental Take and Implementing Agreement

Pursuant to the Illinois Endangered Species Protection Act (520 ILCS 10/5.5) the Illinois State Tollway Highway Authority's (ISTHA) authorization for the incidental take of the State threatened black sandshell mussel (*Ligumia recta*) in Winnebago County, Illinois [associated with the I-90 bridge reconstruction project over the Kishwaukee River] is hereby granted, subject to the terms and conditions described in the attached Authorization and Implementing Agreement. The Illinois Department of Natural Resources has determined that this authorized take is incidental to the construction/replacement of the I-90 bridge, over the Kishwaukee River, in Winnebago County, Illinois.

Procedural History

Huff and Huff, Inc., on behalf of the ISTHA, prepared a conservation plan as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and ISTHA's request for authorization for the incidental take of black sandshell mussels were received by the Illinois Department of Natural Resources (Department) on 13 September 2012. Public notice of ISTHA's request for authorization of incidental take of black sandshell mussels was published in the Breese Courier (Official State newspaper) and the Rock River Times (local circulation) on September 28, October 4, October 11, as well as on October 18, 2012. Public comments on ISTHA's conservation plan were accepted by the Department until November 4, 2012. No comments were received by the public during the period of September 28, 2012 through November 4, 2012.

This project was initially submitted to the IDNR's Office of Realty and Environmental Planning (OREP) for review under the Endangered Species Consultation Process. Upon review within OREP, this project was then elevated to the IDNR's internal Incidental Take Authorization (ITA) committee. The ITA committee decided that this project should formally participate in the Incidental Take Authorization process and seek a formal ITA. At the request of the ITA committee, the OREP project manager was instructed to prepare a letter to the applicant suggesting modifications to the project [which would reduce impacts to the species of concern] and pursuit of a formal ITA – via submission of a Conservation Plan. As stated above, Huff and Huff, Inc., on behalf of the ISTHA, prepared a conservation plan as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and ISTHA's request for authorization for the incidental take of black sandshell mussels were received by the Illinois Department of Natural Resources (Department) on 13 September 2012. Public notice of ISTHA's request for authorization of incidental take of black sandshell mussels was published in the Breese Courier (Official State newspaper) and the Rock River Times (local circulation) on September 28, October 4, October 11, as well as on October 18, 2012. Public comments on ISTHA's conservation plan were accepted by the Department until November 4, 2012. No comments were received by the public during the period of September 28, 2012 through November 4, 2012.

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Wildlife

Reconstruction of the I-90 bridge over the Kishwaukee River will entail a variety of heavy construction activity(ies) to demolish existing roadway, piers, aprons, and to construct supporting piers, roadway, and aprons. In-stream work using causeways and coffer dams for supporting piers will be necessary under the bridge structure. Construction will be undertaken along the eastbound portion of the two lane roadway during 2012-2013 while traffic is diverted to the westbound lanes. During 2014, all bridge traffic will be diverted to the newly constructed roadway, and the westbound lanes will be reconstructed. Temporary causeways and cofferdams will be needed in stream for reconstruction.

Overall, the black sandshell will likely not be visible during construction activities and avoidance of black sandshells will not be possible during in-stream preparations for roadway construction. Black sandshells may be subject to injury or death during in-stream phases of construction. Siltation from construction activities may harm black sandshells beneath the bridge or downstream from the construction site. During the period of larval incubation (August through the winter to the following July), female black sandshells may be sensitive to siltation.

Compliance with the Endangered Species Protection Act

The Illinois Endangered Species Protection Act includes six (6) criteria which must be met for the authorization of incidental take of an endangered or threatened species. These criteria and the Department's determination for each criterion are listed below.

1. The taking will not be the purpose of, but will only be incidental to, the carrying out of an otherwise lawful activity:

The Illinois State threatened species, the black sandshell mussel (*Ligumia recta*) is known to be in the immediate vicinity of the Interstate 90 (I-90) bridge at the Kishwaukee River, Winnebago County, Illinois. An Incidental Take Authorization (ITA) for the black sandshell has therefore been requested by the Illinois State Toll Highway Authority (Tollway), to pursue bridge reconstruction at the I-90 bridge over the Kishwaukee River.

The Tollway is proposing bridge reconstruction for the I-90 bridge crossing over the Kishwaukee River in Winnebago County, Illinois near Cherry Valley. The I-90 bridge project will be adding an extra traffic lane in both directions. Bridge reconstruction will require new bridge piers located both in the Kishwaukee River and on an existing island in the Kishwaukee River. The center point of the project location has coordinates in decimal degrees at 42.247189°N, -88.943553°W. The Township Range and Section for the project are T 44N, R2E, S36, 3rd Principal Meridian.

The construction operations within the Kishwaukee River will include the placement of temporary causeways and cofferdams as required to facilitate the removal of the existing piers and placement of the proposed piers, as well as the removal of existing and placement of new slope walls. The eastbound bridge will be constructed first, followed by the westbound bridge. The temporary causeways and cofferdams will be removed upon the completion of each bridge project and the stream will be restored.

The causeways will presumably be constructed using excavators or similar heavy equipment to place the clean crushed stone/rip rap into the river after a crane has placed the concrete blocks around the perimeter of the causeway. A sheet-pile driver will be used to drive the sheet piling for the cofferdams around the existing piers to be removed and at the proposed pier locations. Once the cofferdams are constructed, an excavator will excavate to the required footing depth and the crane will drive necessary piles at each proposed foundation location.

This construction is scheduled to begin in February 2013. Construction will commence once the weather has improved to allow for maintenance of traffic to be implemented. The duration of the construction will be approximately 20 months with intermittent stream disturbances. There will be no in-stream work between April 1 and June 30 to avoid impacts to fish during spawning season. It is important to the project schedule to perform the mussel relocation as early as possible in 2012 to take advantage of the best river conditions possible.

The Kishwaukee River flows under the existing I-90 bridge as two distinct channels, an eastern channel approximately 55 feet wide and a western channel approximately 122 feet wide. The western channel is subdivided into two approximately equal sections by existing bridge piers. The eastern and western channels are separated by an island approximately 130 feet wide and 1000 feet in length.

2. The parties to the conservation plan will, to the maximum extent practicable, minimize and mitigate the impact caused by the taking.

The State-threatened black sandshell mussel (*Ligumia recta*) is widely distributed in much of the Midwest, but uncommon. Its preferred habitat is in the riffles or raceways of medium to large rivers with strong currents and having gravel or firm, sand bottoms. It can be found in sand, gravel or silt, and in water depths of several inches to more than six feet. Its host fish species for its glochidia include rock bass (*Ambloplites rupestris*), largemouth bass (*Micropterus salmoides*), bluegill (*Lepomis macrochirus*), sauger (*Stizostedion canadense*), white crappie (*Pomoxis annularis*), green sunfish (*Lepomis cyanellus*), and common carp (*Cyprinus carpio*).

Despite the relatively large number of host fish that carry larval black sandshell, the black sandshell appears to be declining throughout its Midwestern range. While exact causes of black sandshell decline are not reported in the literature, general declines or extirpations in mussel populations are attributed to habitat changes and water quality changes that can be linked to pollution from siltation and urban runoff (Downing et al. 2010). Recent findings that mussel glochidia are acutely sensitive to small ammonia spikes (USEPA, 2009), indicate that ammonia runoff from lawns, turf grass, farms, and perhaps wastewater treatment plant overflows during heavy rain events may contribute to a lack of recruitment for larval mussels.

The Illinois Natural History Survey (INHS) database contains records of black sandshell occurrences in Illinois. Recent populations of black sandshell were tallied from the INHS data, with records dated from the year 2000 through 2012 counted as recent populations. Recent reports of the black sandshell are from 20 discrete river/stream systems.

Several recent studies have confirmed black sandshell populations in the Kishwaukee River mainstem and tributaries. The IDNR undertook mussel surveys in the Kishwaukee mainstem and tributaries during 2009 and confirmed eight separate occurrences of black sandshells, most occurring downstream of the I-90 bridge (Szafoni, 2009). Healthy populations of black sandshell were found at seven sites stretching from the I-39 bridge over the Kishwaukee to within approximately four miles downstream of the I-90 bridge. One outlying population of black sandshells was found by the IDNR near Kirkland, IL on the South Branch Kishwaukee, approximately 19 miles from the I-90 bridge (Szafoni, 2009).

Openlands (Chicago, IL), conducted eleven mussel surveys on the mainstem Kishwaukee and tributaries as well as ten mussel surveys on the South Branch Kishwaukee during 2010 and 2011. All of Openlands surveys were located upstream of the I-90 bridge. Two occurrences of black

sandshell were found by Openlands surveys. One site located approximately one mile upstream of the I-90 bridge near Newburg Road found two black sandshells and one site approximately two miles upstream of the I-90 bridge found one live black sandshell.

Based on the recent mussel surveys, the black sandshell has sparse occurrence within two miles upstream, of the I-90 bridge. Openlands surveys found no recent occurrences farther east on the mainstem Kishwaukee than approximately two miles upstream of the I-90 bridge. Larger numbers of black sandshells appear more frequently downstream of the I-90 bridge. The main population of black sandshells in the Kishwaukee River mainstem occurs downstream of the I-90 bridge and continues for several miles as widely scattered individuals among mussel colonies of multiple species. The mussel resource as a whole between the I-90 and I-39 bridge can be termed a *Unique Aquatic Resource* based on IDNR evaluation of mussel resources alone. The 2008 IDNR publication on Biologically Significant Streams does not contain more recent records of black sandshells from the Kishwaukee.

Mussels at I-90 Bridge, Kishwaukee River
Winnebago County, Belvidere, Illinois, May 18, 2012

| Genus species | Common Name | Live | Dead Shell |
|------------------------------------|--------------------|----------|------------|
| <i>Lasmigona complanata</i> | White heelsplitter | 0 | relic |
| <i>Lasmigona costata</i> | Fluted shell | 1 | 3 |
| <i>Pyganodon grandis</i> | Giant floater | 0 | relic |
| <i>Ligumia recta</i> * | Black sandshell* | 2 | 0 |
| <i>Fusconaia flava</i> | Wabash pigtoe | 1 | 1 |
| <i>Quadrula pustulosa</i> | Pimpleback | 2 | 6 |
| <i>Alasmidonta marginata</i> | Elktoe | 1 | 4 |
| <i>Lampsilis cardium</i> | Plain pocketbook | 3 | 31 |
| <i>Lampsilis siliquoidea</i> | Fatmucket | 1 | 4 |
| <i>Venustaconcha ellipsiformis</i> | Ellipse | 0 | 1 |
| <i>Actinonaias ligamentina</i> | Mucket | 3 | 3 |
| <i>Amblyma plicata</i> | Threeridge | 0 | 4 |
| <i>Leptodea fragilis</i> | Fragile papershell | 1 | 2 |
| Total Live species | | 9 | 0 |
| Total Live and Dead species | | 13 | 10 |
| Total Specimens | | 15 | 59 |
| Catch per unit effort | | 7.5/hour | |

* Indicates Illinois State Threatened Species

As recently stated, reconstruction of the I-90 bridge over the Kishwaukee River will entail a variety of heavy construction activity(ies) to demolish existing roadway, piers, aprons, and to construct supporting piers, roadway, and aprons. In-stream work using causeways and coffer dams for supporting piers will be necessary under the bridge structure. Construction will be undertaken the eastbound portion of the two lane roadway during 2012-2013 while traffic is diverted to the westbound lanes. During 2014, all bridge traffic will be diverted to the newly constructed roadway, and the westbound lanes will be reconstructed. Temporary causeways and cofferdams will be needed in stream for reconstruction.

Once again, the black sandshell will likely not be visible during construction activities and avoidance of black sandshells will not be possible during in-stream preparations for roadway construction. Black sandshells may be subject to injury or death during in-stream phases of construction. Siltation from construction activities may harm black sandshells beneath the bridge or downstream from the construction site. During the period of larval incubation (August through the winter to the following July), female black sandshells may be sensitive to siltation.

Minimization of the area affected is not feasible due to construction needs, but black sandshells within the survey area will be relocated. Collection of all mussels present in the survey area will be accomplished with scuba diver/collectors familiar with mussel detection, assisted by shore collectors to cover more shallow areas. Relocation of black sandshells (and all other mussels) within the surveyed area will occur when weather and river conditions are conducive.

Aquatic habitat that may be affected due to siltation will be minimized through the use of silt fences/erosion structures to prevent runoff from entering the river. A designated crew will install, inspect and maintain silt fences in accordance with the Tollway's specifications.

Overall, ISTHA shall ensure that all freshwater mussel surveys, and subsequent relocations, would be conducted prior to initiation of bridge construction/repair. All mussels observed (listed or non-listed species) are to be relocated in order to minimize impacts.

Mussel surveys will be conducted using standard survey techniques including searching by feel to methodically cover the area to be disturbed by the project (viewing boxes, wading in shallow water, SCUBA in deeper water-if applicable, although not likely with this project). All mussels found will be identified to species. Mussels will be relocated into areas of suitable habitat, in the same stream/river, preferably upstream of the construction site. Specifically, the transplant site will be close to the collection area and have similar to better water quality and substrate.

The ecological staff/freshwater mussel consultant conducting this mussel relocation effort shall have extensive experience with Midwestern mussels. The mussel consultant will provide the Department with a report detailing the results of all mussel surveys and relocation efforts within 60 days of completing all surveys/relocations [this report will also be submitted internally to the Illinois Natural Heritage Database and the Illinois Endangered Species Protection Board]. In summary, mussel surveys and related relocations will occur only after Department authorization and prior to any construction activities.

3. The parties to the conservation plan will ensure that adequate funding for the conservation plan will be provided:

This project is authorized by the Illinois State Tollway Highway Authority (ISTHA), which receives portions of its funding from the Illinois General Assembly and the Federal Government in carrying out its programs. In addition, the Illinois State Tollway Highway Authority, exclusively abides by the National Environmental Policy Act (NEPA) and all associated state and federal environmental laws in carrying out its mission of performing the most environmentally sensitive methods of transportation planning and engineering. The Tollway (ISTHA) guarantees funding support of implementation of all stated/necessary mitigation activities.

4. Based on the best available scientific data, the Department has determined that the taking will not reduce the likelihood of the survival or recovery of the endangered species or threatened species in the wild in Illinois, the biotic community of which the species is a part, or the habitat essential to the species' existence in Illinois:

The overall purpose of the project is to reconstruct and widen the Kishwaukee River bridge to provide greater traffic capacity. The need for the project has been identified due to traffic congestion and safety concerns throughout the I-90 corridor.

A no-action alternative would propose no improvements to the I-90 bridge over the Kishwaukee River and would produce no impacts to the aquatic resources of the Kishwaukee. The no-action alternative would produce a bottleneck in the expanded I-90 system and cause traffic congestion, which would have impacts on driver time, vehicle fuel consumption, and efficient commerce. The no-action alternative also does not address bridge deterioration and future rehabilitation work.

Overall, it is anticipated that mussel relocation will not significantly reduce the population of black sandshells that may occur near the project area. While historical mussel relocations had various success rates from poor (<50% survival) to excellent (90% survival), recent relocations report >90% survival success when relocations are properly planned and executed (Rueter et al. 2001, Baldrige et al. 2007, Cope et al. 2003, Peck 2007). The Incidental Take Authorization (ITA) objective is to remove as many black sandshells from the project area as possible with no mortality aside from natural mortality due to age, natural predation, or catastrophic flooding/drought events. Severe flooding events have the potential to move large bedloads of sediment quickly and potentially smother some mussel beds.

The Kishwaukee River is demonstrated as a rich mussel resource and contains a significant population of black sandshells in Illinois. While mussels in general may not spawn or recruit every year, black sandshells are known from both upstream and downstream locations relative to the I-90 bridge, and eventual recruitment from nearby populations would be anticipated. The ultimate success of the relocation would be dependent on finding juvenile black sandshells at a future date during monitoring.

As stated in the April 1996 Technical Report (working draft) titled - "Measures to minimize harm to *Lampsilis higginsii* [federally endangered Higgins Eye mussel] caused by passage of commercial navigation vessels in the upper Mississippi River" [prepared by the U.S. Army Corps of Engineers-Waterways Experiment Station]:

Relocation is one of several methods that can be used to protect freshwater mussels. Relocation can be used to recolonize areas where previous populations were extirpated, to remove mussels from proposed construction sites, to boost numbers of endangered species, or to protect against high densities of the zebra mussel (*Dreissena polymorpha*). The survival of relocated mussels is closely linked to habitat quality.

Relocation sites should have the same conditions of substratum type and stability, and water velocity as the original habitat. Research from the federally endangered Higgins Eye mussel (*Lampsilis higginsii*) recovery team, under the guidance of the United States Fish and Wildlife Service, has determined that minimal mortality (<12%) and high recovery rate (>88%) were shown when aerial exposure of mussels was less than four (4) hours and when relocations were conducted in spring or autumn when air (12-18 C) and water temperature (15-23 C) were moderate.

5. Any measures required under Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], will be performed:

Additional measures are listed below under "Authorization." This authorization is, by definition, subject to those terms and conditions and official ISTHA signature(s) on this authorization indicates their commitment to performing those measures.

6. The public has received notice of the application and has had the opportunity to comment before the Department made any decision regarding the application:

Huff and Huff, Inc., on behalf of the ISTHA, prepared a conservation plan as described by the Illinois Endangered Species Protection Act (520 ILCS 10/5.5). That plan and ISTHA's request for authorization for the incidental take of black sandshell mussels were received by the Illinois Department of Natural Resources (Department) on 13 September 2012. Public notice of ISTHA's request for authorization of incidental take of black sandshell mussels was published in the Breese Courier (Official State newspaper) and the Rock River Times (local circulation) on September 28, October 4, October 11, as well as on October 18, 2012. Public comments on ISTHA's conservation plan were accepted by the Department until November 4, 2012. No comments were received by the public during the period of September 28, 2012 through November 4, 2012.

Authorization

It is the determination of the Department that the measures to be implemented by ISTHA will adequately minimize and mitigate for the anticipated taking (relocation) of a small number of black sandshell mussels due to the construction and repair/replacement of the I-90 bridge over the Kishwaukee River in Winnebago County. Further, it is our opinion that the take (relocation) authorized herein would not diminish the likelihood of the survival of the black sandshell mussel in the wild within the State of Illinois, the biotic community of which the species is a part or the habitat essential to the species' existence in Illinois.

Pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.40(b)], this authorization is issued subject to the following additional terms and conditions:

1. This authorization is effective upon signature of the Department and shall remain in effect for a period of five (5) years after the official "project completion date". "Completion" shall be defined as the date the I-90 Kishwaukee River bridge is officially open for public use. This authorization is effective unless terminated pursuant to Section 5.5. of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5 - 17 IL. Adm. Code Part 1080.80].

2. Prior to demolition/repair of the existing bridge and construction of the new the I-90 bridge over the Kishwaukee River in Winnebago County, ISTHA shall conduct/facilitate, or cause to be conducted, a thorough survey of the reach of the affected portion of the Kishwaukee River that will be directly affected by bridge construction activities and shall relocate any and all (listed and/or non-listed species) freshwater mussels found within the area that will be directly affected by the bridge replacement to suitable habitat, preferably upstream, of the project site.

Handling of mussels shall be in compliance with any and all conditions and/or protocols included in the state and/or federal authorizations for this work. Relocated mussels shall be identified to species and enumerated. A report on the species and numbers of mussels relocated and the location(s) at which they were released shall be provided to the Department within 60 days of completion of the relocation. Such reports will be shared with other IDNR offices (i.e. Office of Realty and Environmental Planning, ESPB, etc.) when requested.

3. Monitoring of relocated mussels will take place approximately 10-12 months after relocation to estimate survival. Monitoring will entail removal, logging, and immediate replacement of black sandshells to their exact location without bagging and holding of specimens in river water whenever possible. If the majority of the mussels are not encountered within the original perimeter of the relocation area, the limits of the survey will be extended 50 feet upstream of the perimeter of the relocation area, 100 feet to the side of the perimeter of the relocation area, and 150 feet behind the relocation area. Tags/markings, if any, will be refreshed as necessary. Voucher specimens of dead specimens may be collected under valid permit for desk measurement, growth, age and deposition in an appropriate museum (INHS, Field Museum, etc.).

A monitoring report will be furnished which will include the results of the recapture study for black sandshells, mortality (if any), and age of black sandshells, rationale for mortality of mussels, evidence of recruitment or juvenile mussels, habitat structure, and an analysis of stability or flux of substrates since last monitoring event.

A second phase of monitoring will take place 20-24 months after relocation using locations and techniques as described in the official Conservation Plan (CP) – on file in Springfield, Illinois. A monitoring report as described in the CP will be furnished to agencies in January of the following year.

A third phase of monitoring will take place approximately 36-48 months after relocation using locations and techniques as described in the CP. A monitoring report as described in the CP will be furnished to agencies, with an analysis of age, growth and mortality over the entire monitoring period to gauge success or failure of the relocation. The monitoring report will be furnished in January of the year following the survey.

4. All mussels encountered within the State of Illinois during this project shall be subject to the general U.S. Fish and Wildlife Service handling protocol for determining presence/absence of species as found in "Section H" of the attached Federal Fish and Wildlife document.

5. *Plans for management of the affected area that will enable continued use by the listed species:*

a. Siltation during all phases of construction will be minimized through use of erosion control devices such as silt fences to prevent runoff from entering the river and affecting black sandshell habitat. A designated crew will inspect and maintain silt fences/erosion structures.

b. The Tollway (ISTHA) will follow specifications on erosion control and water quality best management practices (BMPs). There will be no direct input of highway runoff to the Kishwaukee River – all runoff will be diverted through a BMP prior to discharge into the river. Increasing retention time of runoff water will reduce sediment load and particulate/dissolved pollutants. The segment of the Kishwaukee River at the I-90 bridge is IEPA segment PQ-02, which is designated as impaired for PCB and fecal coliform bacteria. It is known that highway runoff water in general is contaminated by high fecal coliform numbers (Birch et al. 2004), but it is unknown if runoff water at the I-90 bridge follows this pattern. Land application of runoff water would help in reducing fecal coliform numbers directly entering the Kishwaukee.

c. After construction is completed in 2014, causeways, culverts and cofferdams will be removed and the stream bottom will be restored to its approximate original condition and flow pattern, allowing for re-colonization of biota.

6. *Description of all measures to be implemented to minimize or mitigate the effects of the proposed action on listed species:*

a. Implementation and maintenance of the soil, erosion, and sedimentation control plan should prevent runoff from entering the river.

b. Collection of **all** mussels from previously surveyed areas will be accomplished. All mussels will be individually planted in the proper position with siphons pointing in an appropriate direction (usually upstream but current dependent). Mussels will be hand dug into appropriate substrates similar to the substrates removed from. Mussels must be hand buried to avoid having them use excess energy to rebury themselves, which could deplete the stored lipid reserves the mussels will use during the winter season. Black sandshells will be located, aged, sexed, measured, and marked by GPS coordinates.

c. Black sandshells will also be offered as brood stock to the Genoa Fish Hatchery (southern Wisconsin) for use in a federal mussel reintroduction program, pending approval of appropriate state and federal representatives.

d. The Tollway (ISTHA) will mitigate for black sandshell incidental take by supporting the Genoa Fish Hatchery program for propagation of threatened or endangered mussels. It is estimated that ten juvenile black sandshells must be transplanted in order for one shell to reach adult reproductive status. With the estimated presence of twelve black sandshells at the I-90 bridge, then 120 juvenile black sandshells should be transplanted to yield twelve reproductive black sandshells in the future.

7. As per the: INTERGOVERNMENTAL AGREEMENT BETWEEN THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY AND THE GENOA NATIONAL FISH HATCHERY:

WHEREAS, the TOLLWAY, as part of the PROJECT, discovered an Illinois State threatened species known as the Black Sandshell Mussel (*Ligumia recta*) in the immediate vicinity of the I-90 bridge over the Kishwaukee River; and

WHEREAS, the TOLLWAY is requesting an extraction, donation, propagation and repopulation of the Black Sandshell Mussel by applying for an Incidental Take Authorization (ITA) from the Illinois Department of Natural Resources (IDNR), Office of Resource Conservation as further described in the "Conservation Plan for the Incidental Taking of the State Threatened Species, Black Sandshell (*Ligumia recta*) Mussel, Near the Kishwaukee River at Interstate-90 Bridge" attached hereto and made a part hereof as "Exhibit A"; and

WHEREAS, the HATCHERY has the necessary expertise and facilities to perform the propagation, repopulation to inform and advise the TOLLWAY with regard to the measures taken with respect to the Black Sandshell Mussel in the immediate vicinity of the I-90 bridge over the Kishwaukee River, and to take the necessary steps appropriate to the special needs and circumstances of Black Sandshell Mussel and the TOLLWAY pursuant to the ITA; and

WHEREAS, the HATCHERY has prepared a Proposal, as further described in the "Production of Black Sandshell (*Ligumia recta*) for the Kishwaukee River", attached hereto as "Exhibit B". The Proposal contemplates the donation of the specimens of the Black Sandshell Mussel found within the PROJECT area to the HATCHERY for a three (3) year term for the propagation and repopulation of the Black Sandshell Mussel in the PROJECT area. The Mussels will be reintroduced to the PROJECT area upon completion of the PROJECT, (hereinafter referred to as the "MITIGATION"); and

WHEREAS, the TOLLWAY and the HATCHERY by this instrument, desire to determine and establish their respective responsibilities toward the funding, execution and monitoring of the MITIGATION as proposed; and

WHEREAS, the TOLLWAY by virtue of its powers as set forth in the "Toll Highway Act," 605 ILCS 10/1 *et seq.* is authorized to enter into this AGREEMENT; and

WHEREAS, the HATCHERY by virtue of its powers as set forth in Section 7 of the Endangered Species Act of 1973 [26 USC 1536] *et seq.*, and amendments thereto, or regulations implementing Section 7 [50 CFR 402] *et seq.* is authorized to enter into this AGREEMENT; and

WHEREAS, a cooperative Intergovernmental Agreement is appropriate and such an Agreement is authorized by Article VII, Section 10 of the Illinois Constitution and the "Intergovernmental Cooperation Act", 5 ILCS 220/1 *et seq.*

- A. The TOLLWAY, as sponsor, will fund the years 2013 through 2015, as further detailed in ARTICLE V – TERM AND TERMINATION, and in accordance with the provisions of this AGREEMENT.
- B. The HATCHERY will be paid, upon presentation of detailed invoice(s), based upon the actual costs of performance of the MITIGATION which will substantially conform to the budget as set forth in Exhibit B.
- C. The HATCHERY shall certify in writing, upon presentment of each invoice, that the work as invoiced has been actually performed and in compliance with all other provisions of this AGREEMENT. Invoicing shall be sufficiently itemized to permit the TOLLWAY to verify performance of the invoiced work.
- D. The TOLLWAY agrees that upon full execution of this AGREEMENT and receipt of an invoice from the HATCHERY, the TOLLWAY will pay to the HATCHERY, the amount of \$11,671, the TOLLWAY also agrees that subsequent to October 1, 2014 and receipt of an invoice based on actual costs of the work performed, the TOLLWAY will pay the HATCHERY an amount estimated at \$11,378, and will pay to said HATCHERY the remainder of its obligation in a lump sum, upon completion of the MITIGATION, based on actual final costs, an amount currently estimated at \$4,855.
- E. The total MITIGATION costs under this AGREEMENT are estimated at \$27,904 and may, not exceed \$30,000.

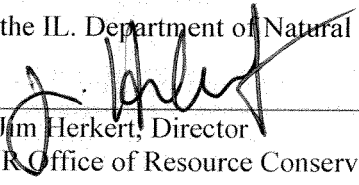
F. The HATCHERY shall not be obligated to expend any funds other than those invoiced to the TOLLWAY in accordance with this AGREEMENT, and the TOLLWAY shall not be obligated to pay the HATCHERY any amounts in excess of \$30,000 as provided for in this AGREEMENT.

8. The effective period of this authorization may be altered by mutual agreement between ISTHA and the Department.

9. This authorization may be revoked pursuant to Section 5.5 of the Act if the Department finds that ISTHA has failed to comply with any of these terms and conditions or has been responsible for the take of any black sandshell mussels beyond that which is incidental to the construction and repair/replacement of the I-90 bridge over the Kishwaukee River in Winnebago County.

10. The ISTHA official identified below is authorized to execute this agreement. Execution by ISTHA indicates acceptance of all terms and conditions described in this document.

For the IL. Department of Natural Resources




Dr. Jim Herkert, Director
IDNR Office of Resource Conservation

Date Signed

3.21.13

For the IL. State Tollway Highway Authority



Signature

Please print name and official title

02/28/13

Date Signed

Paul Kovacs Chief Engineer