

Illinois Department of Natural Resources

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JB Pritzker, Governor
Colleen Callahan, Director

Authorization for Incidental Take and Implementing Agreement

Pursuant to the Illinois Endangered Species Protection Act (Act) (520 ILCS 10/5.5) and the regulations adopted to implement the Act (17 Ill. Adm. Code 1080), authorization is hereby granted to Hanson Aggregates Midwest, Inc., (hereinafter referred to as Hanson) for the incidental take of the Federal- and State-endangered Hine's Emerald Dragonfly (*Somatochlora hineana*, and hereinafter referred to as HED), and the State-endangered Blanding's Turtle (*Emydoidea blandingii*) and Spotted Turtle (*Clemmys guttata*). Hereinafter, these two species may be collectively referred to as Listed Turtles. The Illinois Department of Natural Resources (hereinafter referred to as the Department) has determined that this taking is incidental to activities associated with surface and subsurface limestone mining operations and habitat restoration near Romeoville in Will County, Illinois. The Habitat Conservation Plan includes two areas: a permit area and a planning area. The permit area covers 2,072 acres where Hanson will be conducting mining and other minimization and mitigation activities. There are 635.1 acres of the permit area that are not owned by Hanson, but all activities will only occur on Hanson's property in the permit area. The planning area is approximately 35,445 acres, and includes the permit area plus nearby habitat, and the estimated groundwater recharge areas for HED larval habitat within and adjacent to the permit area. Hanson is proposing one action in the planning area and outside of the permit area, an infiltration pond on Forest Preserve District of Will County property. Several Illinois Nature Preserves Commission sites are included outside of the permit area but within the planning area: Romeoville Prairie Nature Preserve, Lockport Prairie Nature Preserve, and Long Run Seep Nature Preserve. No adverse impacts shall occur to these sites, per the Illinois Natural Areas Preservation Act (525 ILCS 30/). Illinois Nature Preserves Commission sites are not covered by this authorization.

Procedural History

Due to the inclusion of a federally listed species, the Department has aligned review and approval steps for this authorization with the US Fish and Wildlife Service (USFWS). Hanson initiated the Habitat Conservation Plan (HCP) process in 2006 as part of a group of applicants including other lead partners (ComEd and Midwest Generation) and local supporting partners based on the shared species and landscape considerations all were working within. Issues related to the unique actions under review requiring different timelines led to the partners deciding to separate and seek take permits tailored to their respective businesses. This take authorization specifically treats the proposed actions of Hanson Aggregates Midwest. Per 1080.10(c), the Department may accept an approved HCP in lieu of a conservation plan required by the Act. However, to provide an approved HCP, an applicant would be delaying initiation of review by the State of Illinois to the end of the USFWS process. To synchronize our reviews, Hanson included Appendix H to their HCP addressing the specific needs of the State's Act.

The complexity of species and groundwater analysis necessary to complete this review required considerable external scientific expertise. The Department received substantial draft HCPs prepared by Applied Ecological Services, Inc. on behalf of Hanson in February 2014, June 2015, April 2016, May 2019, and October 2020, as a request for authorization for the incidental take of Hine's Emerald Dragonfly, Blanding's Turtle, and Spotted Turtle. The HCP also includes a request for take of Federally- and State-threatened Lakeside Daisy (*Tetraneuris herbacea*, listed in the HCP as *Hymenoxys acaulis*), and Federally- and State-endangered Leafy Prairie Clover (*Dalea foliosa*). Under the Act, the take of all threatened and endangered plants requires the express written permission of the landowner, and these species shall not be offered for sale (520 ILCS 10/3). The Department does not have the authority to grant incidental take of plants. Therefore, Lakeside Daisy and Leafy Prairie Clover will not be addressed further in this authorization; notwithstanding the foregoing, any federal requirements for the protection of these two plant species in the HCP must be followed by Hanson. The federal Incidental Take Permit was issued by the USFWS on November 15, 2021.

With each revision, the Department requested additional information to make the HCP complete as prescribed by Ill. Adm. Code 1080.10. Substantive improvements to groundwater monitoring and mitigation deed restrictions are particularly notable. Sufficient additional information was received, and the HCP was deemed complete by the Department on December 3, 2020. The public notice period will be detailed under #6 of the Compliance section below.

Compliance with the Illinois Endangered Species Protection Act

The Act includes six criteria that must be satisfied for the authorization of incidental take of an endangered or threatened species. These criteria and the Department's determination for each 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 stated and apparent purpose of this proposed action is the mining of limestone from mine facilities in and around Romeoville in Will County, Illinois. The project will include the surface mining of two currently active limestone quarries in Hanson's Romeoville facility (Pierce Eich Quarry and Middle Quarry), the expansion of surface mining into the Middle Parcel, the expansion of surface mining of the East Quarry north into East Parcel, and the initiation of sub-surface mining of Galena-Platteville limestone at a depth of 350 feet below the ground surface of Pierce Eich, Middle Quarry, Middle Parcel, and East Quarry, in addition to the removal of overburden material (e.g. soil and vegetation); the crushing, washing, and sizing of limestone; truck, rail, and barge loading; and routine marine operations and maintenance activities. Hanson's facilities in the Romeoville area consist of **1,437 acres**, of which they are planning to **surface mine 187 acres** over the next 35 years. An additional 635.1 acres of private land occur within the permit area which are explained in Section 2.1 on page 15 of the HCP. All surface mining, except East Parcel (36 acres), will require an ITA and is estimated to last no more than 30 years. East Parcel contains no wetlands or

habitat for listed species; currently, this parcel contains an old settling pond for water used at the facility and space for mining product stockpiles.

As mitigation for these activities, Hanson has committed to habitat restoration on eight parcels (River South, Fitzpatrick Seep, River, North, River North, Far North, ComEd, and Long Run), for a total of 530.9 acres. Proposed mitigation activities carry a risk of take, and include conducting prescribed fire, using herbicide, cutting to remove invasive species, seeding and planting native species, and discing and tilling soil. Risk to the species may occur during the construction of an access road covering 0.39 acres on ComEd parcel as the recipient site of 6.01 acres of wet dolomite prairie sod to be transferred from Middle Parcel, and for other management activity access.

Take of Hine's Emerald Dragonfly could occur as a result of vehicle collisions with flying adults, habitat alteration, crushing of larva beneath vehicles traveling through wetland areas, and indirect impacts to groundwater levels in critical habitat areas. Take of Blanding's Turtles and Spotted Turtles could occur as a result of road mortality, habitat alteration, and entrapment in construction and disturbance areas. The take of Hine's Emerald Dragonfly, Blanding's Turtle, and Spotted Turtle that could result from this project is not the purpose of Hanson's activities, but is incidental to the carrying out of an otherwise lawful activity.

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

Proposed minimization and mitigation measures are included in Hanson's Habitat Conservation Plan.

To meet the "maximum extent practicable" standard, additional minimization and/or mitigation measures may be required beyond those proposed by Hanson, based on the life history needs of the Hine's Emerald Dragonfly, Blanding's Turtle, and Spotted Turtle. **All required minimization and mitigation measures are presented under the Authorization section below.**

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

Hanson states that adequate funding will be available to successfully implement the specific commitments outlined in the HCP. Hanson's history over the past 14 years of funding project development, including pre-and post-mining studies, demonstrates its capability and commitment to continue such funding. Hanson will generate sufficient income each year through its routine operations over the 30-year life of the project to ensure that all costs associated with funding the HCP will be covered and included in its annual budget.

It is the Department's opinion that Hanson's stated commitment to funding their proposed minimization and mitigation measures is sufficient to satisfy this criterion.

4. Based on the best available scientific data, the Department has determined that the taking will not reduce the likelihood of survival or recovery of the endangered species or threatened species 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:

Hine's Emerald Dragonfly (*Somatochlora hineana*) is a Federally- and State-endangered dragonfly species.

Habitat: Hine's Emerald Dragonfly is found in spring-fed marshes and groundwater-fed wetlands that are high in calcium carbonate and in sedge meadows overlaying dolomite bedrock.

Distribution: Hine's Emerald Dragonfly are critically imperiled throughout their range which includes Missouri, Illinois, Wisconsin, Michigan, and the Canadian province of Ontario. The species has been extirpated from Ohio, Indiana, and Mississippi.

Reproduction: Hine's Emerald Dragonfly adults can be observed from late May through early October in Illinois. After metamorphosing in the spring and summer, adult males establish and defend breeding territories in small areas of shallow water. The female Hine's Emerald Dragonfly lays eggs in cool, shallow, slow-moving waters, spring-fed marshes, and seepage sedge meadows. The dragonflies begin their lives as aquatic larvae called nymphs. Hine's Emerald Dragonfly nymphs have a symbiotic relationship with the Devil Crayfish (*Cambarus diogenes*), as they depend on the crayfishes' burrows to avoid desiccation when their shallow pools of water dry up in late summer. This species remains in the nymph stage for up to five years before transforming into an adult dragonfly. Adult Hine's Emerald Dragonflies live about 5-6 weeks.

Population: There are many threats to Hine's Emerald Dragonfly populations: water pollution, habitat alteration and fragmentation, quarrying, industrial and urban development, and agriculture.

Range in Illinois: In Illinois, populations of Hine's Emerald Dragonfly are rare and localized. Populations have been found in Will, Cook, DuPage, and Winnebago Counties, for a total of four (4) counties. There are currently 10 extant Element Occurrence Records for Hine's Emerald Dragonfly in the Illinois Natural Heritage Database.

Incidental Take Authorizations: The Department has issued two previous Incidental Take Authorizations for Hine's Emerald Dragonfly, for an electrical transmission line project and for environmental remediation. This is the third authorization for Hine's Emerald Dragonfly in Will County.

Hine's Emerald Dragonflies in the Des Plaines River Valley have been extensively monitored since 1995 and have been sighted annually within the

project area. Hanson estimates that 40.8 acres of potential adult Hine's Emerald Dragonfly habitat exists within the Middle Parcel, all of which will be impacted by mining activities. Adult Hine's Emerald Dragonfly habitat will also be affected on North, Far North, and ComEd Parcels for a total habitat impact of 49.6 acres. Data acquired by Hanson shows that there is either a very low risk or no risk that any larval habitat will be directly impacted by mining activities.

Blanding's Turtle (*Emydoidea blandingii*) is an Illinois State-endangered semi-aquatic turtle species.

Habitat: Blanding's Turtles can be found in water bodies such as creeks, marshes, and ponds that are adjacent to sandy upland areas. They spend most of their time in water, though they are known to leave the water to travel between ponds and for females to lay eggs. Blanding's Turtles enter a period of dormancy during the winter, during which they remain buried in the muddy bottoms of deep marshes, backwater pools, and streams.

Distribution: Blanding's Turtles are found east of the Rocky Mountains in North America. In the United States, they are found from South Dakota and Nebraska to the Atlantic Ocean coastal states of New England. They range from Missouri and Illinois north into Canada's Ontario, Quebec, and Nova Scotia provinces. Records are not known from Delaware, Connecticut, or Rhode Island.

Reproduction: Blanding's Turtles are long-lived, not reaching sexual maturity until 14-20 years old. Mating likely occurs in April or early May, and nesting takes place from early June to early July. Eggs are typically laid in well-drained, sandy soil in a sunny upland area, and females may travel up to a mile over land to their nesting location. Clutch sizes are varied, ranging from 10-26 eggs per nest, and females only lay one clutch of eggs per year. Since nests are typically far from water, hatchlings must travel long distances after emerging from their nest, subjecting them to increased threat of predation, road mortality, and desiccation.

Population: The decline of Blanding's Turtle populations can be largely attributed to habitat loss and degradation. With high levels of egg and juvenile mortality and low reproductive potential, Blanding's Turtle populations have had difficulty recovering. There are several captive breeding programs for this species in Illinois as well as concerted efforts to reduce meso-predators where they threaten nests and young.

Range in Illinois: Blanding's Turtles are most often found in northern Illinois and sporadically found throughout the central part of the state. They have been found in 26 of 102 counties. There are 88 extant Element Occurrence Records for Blanding's Turtles in the Illinois Natural Heritage Database.

Incidental Take Authorizations: The Department has issued 25 previous or pending Incidental Take Authorizations for Blanding's Turtles. This is the fourth authorization granted for Blanding's Turtles in Will County. Previous projects included residential or commercial developments, highway and bridge construction, wind energy facilities, the construction of an athletic field, the

construction and maintenance of electrical lines, pipeline installation, and dredging.

Blanding's Turtles were found in several of the parcels within the project area in May and June 2015. Hanson estimates that 29.1 acres of potential Blanding's Turtle wetland habitat exists within the Middle Parcel, all of which will be impacted by mining activities. Other parcels with Blanding's Turtle habitat will be affected by restoration activities.

Spotted Turtle (*Clemmys guttata*) is an Illinois State-endangered turtle species.

Habitat: Spotted turtle is found in a variety of habitats, including swamps, bogs, fens, marshes, woodland streams, wet pastures, ditches, vernal pools, and sedge meadows. It requires habitats with areas of soft substrate and some aquatic vegetation, and prefers shallow, slow-moving waters. Spotted Turtles are thought to avoid artificial reservoirs and deep, open-water areas. Spotted Turtles are known to spend time on land to bask in the sun and travel between habitats, and females travel onto land to lay eggs in areas of sunny soil in sedge meadows and wet prairie.

Distribution: Illinois is at the western edge of the range of Spotted Turtles. Populations of Spotted Turtles have been reported in states bordering the length of the Atlantic Ocean coastline west to the Great Lakes. There have also been reports from the Canadian Province of Ontario.

Reproduction: Spotted Turtles enter a period of inactivity during the winter months and become active again in early spring. Breeding season occurs from March through May. Females leave breeding pools in May in search of nesting areas. Spotted Turtles lay 3-4 eggs at a time, and the eggs hatch after about 11 weeks. Spotted Turtles are one of many turtle species whose sex is determined by the temperature of the eggs during incubation, making global warming a cause for concern and potentially resulting in uneven sex ratios in the future. During the summer when water temperatures are high, Spotted Turtles may enter a second aestivation period, either aquatically or terrestrially. Spotted Turtles are known to move between habitats during different parts of the year, making them more vulnerable to predation or road mortality as they travel across land between habitats. Spotted Turtles are long-lived, not reaching sexual maturity until 8-10 years old and most live for at least 25 years.

Population: Spotted Turtle populations have declined due to habitat loss and degradation. They are also popular in the pet trade, and illegal collecting from the wild has taken a toll on populations.

Range in Illinois: The Spotted Turtle's geographic range only extends into the northeast corner of Illinois. In Illinois, it has only been found along the Des Plaines River in Will County. There are two extant Element Occurrence Records for Spotted Turtle on the Illinois Natural Heritage Database.

Incidental Take Authorizations: The Department has issued one previous Incidental Take Authorization for Spotted Turtle, for an electrical transmission line in Cook, DuPage, and Will Counties.

Field work has been conducted within the project area over the past 20 years, but Spotted Turtles have not been found on any of Hanson's parcels. However, extant Spotted Turtle populations are known to exist in neighboring Lockport Prairie Nature Preserve and Romeoville Prairie Nature Preserve. Hanson estimates that 29.5 acres of potential Spotted Turtle wetland habitat will be impacted by mining or restoration activities.

Based on the amount of habitat impacted by this project, the number of known occurrences of Hine's Emerald Dragonflies, Blanding's Turtles, and Spotted Turtles in Illinois, an assessment of the potential effect of this project on individual species in the project footprint, the conservation methods included in this authorization for take and the Conservation Plan, and the understanding that vulnerability and recovery information on the species remains limited; it is the conclusion of the Department that the taking anticipated as a result of this project will not reduce the likelihood of survival or recovery of the species in the wild within the State of Illinois, the biotic community of which the species are a part, or the habitat essential to the species' existence in Illinois.

5. Any measures required under Section 5.5(b)(6) of the Act will be performed:

Additional measures are listed below under "Authorization". This authorization is, by definition, subject to those terms and conditions and the signature of a representative from Hanson 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:

Public notice of Hanson's request for authorization of incidental take was published in the *Breeze Courier* (official state newspaper) on February 17, 2021 and in *The Herald-News* on February 17, February 24, and March 4, 2021. A copy of the HCP was deposited at Lehigh Hanson, Inc office and the White Oak Library: Romeoville Branch, where it was available for public review. The deadline for public comment was April 3, 2021. One comment was received from the Illinois Natures Preserve Commission.

Authorization

It is the determination of the Department that the measures that will be implemented by Hanson will adequately minimize and mitigate the anticipated taking of Hine's Emerald Dragonfly, Blanding's Turtle, and Spotted Turtle incidental to the activities associated with the surface and

subsurface limestone mining operations (Pierce Eich Quarry, Middle Quarry, Middle Parcel, and East Parcel) and habitat restoration (River South, Fitzpatrick Seep, River, North, River North, Far North, ComEd, and Long Run) in Will County, Illinois. Further, the Department has concluded that the take authorized herein will not reduce the likelihood of survival or recovery of the Hine's Emerald Dragonfly, Blanding's Turtle, and Spotted Turtle, the biotic community of which the species are a part, or the habitat essential to the species' existence in Illinois.

All terms and conditions included in the aforementioned Habitat Conservation Plan submitted by Hanson to the Department are incorporated into this agreement by reference and are made a part thereof.

Pursuant to Section 5.5 of the Illinois Endangered Species Protection Act [520 ILCS 10/5.5] and the Administrative Rules for the Incidental Taking of Endangered and Threatened Species [Ill. Adm. Code 1080.40(b)], this authorization is issued subject to the following terms and conditions, which may include additions or modifications to the minimization and mitigation measures proposed by Hanson in the Habitat Conservation Plan:

1. This authorization is effective upon the signature of the Department and shall remain in effect for a period of **thirty (30) years** from the date of the Department signature, unless terminated by written agreement of both parties.

Notwithstanding the above paragraph, due to the length of this Authorization, the Department reserves the right to reassess the terms of this Authorization every five years. If during reassessment the Department determines that the Hine's Emerald Dragonfly, Blanding's Turtle, and/or Spotted Turtle have become more imperiled than when the species and impact analyses were initially conducted, the Department may request an amendment to this Authorization or additional minimization or mitigation by Hanson. Further, if during reassessment the Department determines that the level of minimization and mitigation no longer meets the requirement of 520 ILCS 10/5.5 for minimization and mitigation to the maximum extent practicable for the potential take, the Department may request an amendment to this Authorization or additional minimization or mitigation by Hanson. If the Department and Hanson cannot reach an agreement, this Authorization will be terminated. Termination of this Authorization under this provision does not prevent Hanson from applying for a new Incidental Take Authorization for this project.

This authorization may be revoked pursuant to the Act and Ill. Adm. Code 1080.80(b) if the Department finds that Hanson has failed to comply with any of these terms and conditions or has been responsible for the taking of Hine's Emerald Dragonfly, Blanding's Turtle, and Spotted Turtle beyond that which is incidental to activities associated with the previously described limestone mining operations near Romeoville in Will County, Illinois.

2. The effective period of this authorization may be altered by mutual written agreement between Hanson and the Department. The Illinois Endangered Species Protection Board shall be notified of any such alteration.

Any substantive changes, including but not limited to a change in the project footprint or a change in the State-listed species which could potentially be affected, will require that a new conservation plan be submitted to the Department to initiate the review and public notice process as required by the Act.

3. This authorization may only be transferred upon approval and written authorization by the Department.
4. Notification to all on-site personnel, consultants, and restoration services contractors shall be provided on the sensitive biological resources in the area; the identification of Hine's Emerald Dragonfly, Blanding's Turtle, and Spotted Turtle; regulations protecting the species; where the species might be found; avoidance areas; travel restrictions for equipment and vehicles; how to report sightings or incidents that may involve take; the importance of timing restoration activities to times when species are less sensitive to take, including harassment; and the response protocol if the species are found, including chain of response personnel. Printed maps shall be provided to all on-site personnel delineating wetland areas and Hine's Emerald Dragonfly habitat areas. Copies of education materials, turtle response protocol, and maps shall be carried in all on-site vehicles. **Hanson shall submit a copy of the education materials to the Department.**
5. The Department reserves the right of entry by its staff or representatives to inspect species, potential habitat, and species management practices.
6. Biological consultants employed by Hanson shall hold the necessary permits for work with non-listed and listed species; these include an Illinois Department of Natural Resources (IDNR) Scientific Collection Permit as authorized under 17 Illinois Administrative Code 520, an IDNR Endangered Species Permit as authorized under 17 Illinois Administrative Code 1070, and a Herptile Scientific Permit as authorized under 17 Illinois Administrative Code 885.
7. Hanson shall notify the Department's Endangered Species Program by email correspondence of the commencement and completion of all major mining activities (e.g., when surface mining begins and ends in each of the quarries, when sub-surface mining begins below each parcel) and major restoration activities (e.g., prairie transplant from Middle Parcel).
8. Notification of any Hine's Emerald Dragonfly, Blanding's Turtle, or Spotted Turtle present during performance of the project shall be reported electronically to the Department within 48 hours of discovery accompanied by location information (photograph including entire plastron of turtle, map, and GPS coordinates).
9. Any discoveries of additional State-listed species beyond those identified in this agreement **halts work on that parcel** and shall be reported to the Department within 48 hours accompanied by location information (photograph, map, and GPS coordinates).

10. Hanson shall conduct, or cause to be conducted, the following efforts before and during surface mining operations:
- a. All species
 - i. Conducting overburden (i.e. vegetation and soil) removal outside flying season (i.e. May 15 to October 15) and outside active turtle season (March 16 – Oct. 31), if possible. If any overburden removal is conducted during flight season or active turtle season, vehicle speed requirements below will be followed, and turtle impact prevention measures will be taken (see HCP Section 5.2.3) to avoid impacts to covered species.
 - ii. Conducting all blasting according to State limits and 150 ft from remaining habitat of Covered Species to avoid direct and indirect (e.g. vibration, dust, and groundwater) impacts. (Distance from remaining habitat does not apply to setback areas or other areas that will not be mined).
 - iii. Installing or implementing sediment control measures (e.g. silt fence, straw rolls) in areas of soil disturbance.
 - iv. Implementing vehicle fluid spill protection measures (e.g. daily vehicle leak inspections and spill kits) in habitat areas.
 - b. Hine's Emerald Dragonfly
 - i. Operating all vehicles, including trains operated by Hanson, at reduced speeds (< 15 mph) within and adjacent to HED habitat during flying season (i.e. May 15 to October 15)
 - ii. Keeping a vegetation buffer of 50 feet adjacent to the wet-mesic dolomite prairie on Middle Parcel until the prairie is removed for transplant.
 - iii. Using heavy equipment during woody vegetation removal (e.g. Skidsteer or Loaders) outside flying season (i.e. May 15 to October 15), if possible. If not, the speed restriction applies (i.e. <15 mph).
 - iv. Using a water truck to wet down areas and control dust on roads adjacent to adult HED habitat.
 - c. Blanding's and Spotted Turtles
 - i. Maintain and repair existing fencing on the west and north sides and add fencing to the east side of the Middle Parcel to reduce the likelihood of turtle entry. Fencing should be flush with the ground (or extended 6" into the ground where possible) to reduce burrowing (or Jersey barriers may be used in some locations). One-way flaps will be installed at the bottom of the fence in selected locations to allow turtles within the parcel to leave but not re-enter. These fence improvements should be done at least one season before mining operations begin to prevent entry of turtles into the parcel from the north. Work will be performed during turtle dormant season (Nov. 1 to March 15). Fence should be inspected monthly during the turtles' active season.
 - ii. Tree and brush removal will be conducted, to the extent possible, during turtle dormant season (Nov. 1 to March 15) to minimize take.

- iii. To protect turtles during earth moving activities (i.e. overburden removal and prairie transplant activities) occurring during their active season, silt fence will be installed around the construction area prior to tree and shrub and overburden removal to prevent entry by turtles. Embed silt fence four to six inches into the ground to reduce burrowing. All construction areas - both in wetland and uplands, should be included. In Middle Parcel, overburden removal, and thus silt fence installation, may be done in phases. Silt fence around active earth moving areas should be inspected daily during the turtles' active season.
- iv. Trap and remove turtles in construction areas prior to starting activities which could cause harm or mortality. Thus, trapping will be done in each phase area identified and fenced-off and will be completed in the spring (or fall) prior to starting mining preparation activities in that area. Traps will be used and inspected according to the accepted turtle trapping protocol. This protocol shall be submitted to the Department for approval before being implemented. The protocol shall include plans for all Blanding's and Spotted Turtles to be transported to a wildlife rehabilitation facility, receive health checks, and be added to captive breeding programs for those two species.
- v. If earth moving activities are conducted during the turtles' active period (March 16 to October 31), construction areas (where heavy equipment will be used, and surrounded by silt fence) will be searched each day before starting work.
- vi. Listed Turtles will be transported to the Willowbrook Wildlife Center in Glen Ellyn. Should there be a change in the designated facility, the Department shall notify Hanson. Protocol for handling and relocating turtles will need to be developed with the IDNR. A permit is required to handle State-listed turtles.
- vii. A biologist, permitted to handle State-listed turtles, will be present on-site during activities using heavy equipment during the turtle's active period.
- viii. No inspections or trapping will take place in areas that have already been cleared of vegetation and soil. The only exception would be areas adjacent to currently vegetated areas that may be used for vehicle traffic during stripping.

11. Hanson shall conduct, or cause to be conducted, the following efforts before and during habitat restoration operations:

- a. All species
 - i. Using existing routes for access and minimizing construction of new access roads.
 - ii. Avoiding placing access routes in wetland areas, especially higher quality wetlands, and using alternate routes through degraded uplands instead.
 - iii. Maintaining surface water flow after construction of access roads.

- iv. Using matting (e.g. timber or composite) for temporary wetland crossing (access routes) for heavy equipment and road vehicles.
 - v. Using road vehicles and heavy equipment only in frozen or dry conditions or on access routes.
 - vi. Delivering and staging heavy equipment in upland areas outside of rapid recharge areas.
 - vii. Operating vehicles at low speeds (< 15mph) during adult HED flying season (May 15-October 15), and during turtle active season (March 16 to October 31).
 - viii. Placing sediment control measures (e.g. silt fence or wattles) around access routes and other areas of soil disturbance, including prairie transplant area.
 - ix. Accessing wetland areas with water levels deeper than 12 inches using amphibious vehicles (access would be limited to the timeframe of November 1 - March 15 to avoid Listed Turtles).
 - x. Crossing wetlands (with <12 inches of standing water) without HED breeding habitat with low ground pressure vehicles (5 pounds per square inch).
 - xi. Properly maintaining vehicles, checking for leaks at the start of each workday, repairing leaks if needed before using vehicles on site. Carrying absorbent materials with equipment or having them accessible at the site to contain spills if they occur.
- b. Hine's Emerald Dragonflies
- i. Accessing on foot (no vehicles) areas within a 20-meter (65 foot) buffer of HED larval habitat year-round as mapped, unless agreed upon by USFWS. Foot traffic will be minimized in these areas and stepping in rivulets will be avoided. Foot traffic should be avoided during inundated or heavily saturated conditions.
 - ii. Ensuring vehicles crossing larval rivulets will use matting or a bridge constructed from composite matting.
 - iii. Removing woody vegetation in larval habitat areas conducted on foot using only hand tools (e.g. chainsaws). Herbicide application done by hand wicking (or other methods approved by USFWS) within a 20-meter buffer of HED larval habitat with aquatic-approved herbicides. Herbicide can be applied to cut woody vegetation within larval habitat buffer by dabbing or painting (or other methods approved by USFWS).
 - iv. Applying herbicide by foliar spraying invasive vegetation conducted only outside of the 20-meter buffer around HED larval habitat and with an aquatic-approved herbicide and surfactant.
 - v. Seeding in larval habitat will be done on foot in late fall under dry conditions.
 - vi. Creating or modifying rivulets (including hydrology) only in areas unoccupied by larval HED. HED occupied rivulets or other larval habitat areas will be modified only with approval from USFWS).
 - vii. Stockpiling and/or burning piles of cut vegetation in upland areas.
 - viii. Chipping of woody vegetation will take place in low quality upland areas.

- ix. Conducting prescribed burns outside HED flight season. More restrictions apply to avoid impact to covered turtle species (see HCP Section 5.2.3).
 - x. Hanson staff and contractors will utilize maps, either electronic or hard copy, showing wetlands and the HED habitat areas, when completing restoration work.
- c. Blanding's and Spotted Turtles
- i. Tree and brush removal will be conducted, to the extent possible, during turtle dormant season (Nov. 1 to March 15) to avoid take.
 - ii. To protect turtles during earth moving activities (i.e. overburden removal and prairie transplant activities) occurring during their active season, silt fence will be installed around the construction area prior to tree and shrub and overburden removal to prevent entry by turtles. Embed silt fence four to six inches into the ground to reduce burrowing. All construction areas - both in wetland and uplands, should be included. In Middle Parcel, overburden removal, and thus silt fence installation, may be done in phases. Silt fence around active earth moving areas should be inspected daily during the turtles' active season.
 - iii. If earth moving activities are conducted during the turtles' active period (March 16 to October 31), construction areas (where heavy equipment will be used, and surrounded by silt fence) will be searched each day before starting work. Protocol for handling and relocating turtles will need to be developed with the IDNR. A permit is required to handle State-listed turtles. The protocol shall include plans for all Blanding's and Spotted Turtles to be transported to a wildlife rehabilitation facility, receive health checks, and be added to captive breeding programs for those two species. Listed Turtles will be transported to Willowbrook Wildlife Center in Glen Ellyn, unless other guidance is provided by the Department.
 - iv. A biologist, permitted to handle State-listed turtles, will be present on-site during activities using heavy equipment during the turtle's active period.
 - v. In prairie transplant areas, install silt fences, straw rolls (i.e. wattles), or other erosion control measures to prevent sedimentation into wetland and prairie habitat. To the extent practicable, plastic netting is to be avoided.
 - vi. In prairie transplant area, keep all vehicles (e.g. trucks, skid steers, and other heavy equipment) within fenced construction area.
 - vii. Conduct environmental awareness training for all contractors and train restoration crew to identify Blanding's and Spotted Turtles. Crews should avoid spraying them and other turtles with herbicide and hitting them with a vehicle.
 - viii. Minimize use of road salts in areas immediately adjacent to turtle habitat.
 - ix. Prescribed burning within wetlands will typically be implemented between October 15 through April 15 in order to avoid impacts to Blanding's and Spotted Turtle. However, weather needs to be considered to understand the species' overwintering periods in a particular year. Therefore, to maximize management opportunities while minimizing risks from fire, managers will also use the following prescription criteria to provide flexibility to the above dates when the mean 5-day temperature is

below 50 °F: 1) peak daily high temperature is less than 50 °F and cloudy to mostly cloudy weather or, 2) if sunny, then only when peak daily high temperature is less than 45 °F.

12. Hanson shall conduct, or cause to be conducted, the following turtle survey and relocation efforts:
 - a. Turtles of all species shall be trapped and relocated from construction areas prior to starting activities which could cause harm or mortality. Trapping shall take place within fenced-off construction areas in the spring or fall prior to starting mining or transplant preparation activities in each area.
 - b. Trapped Blanding's and Spotted Turtles shall undergo health assessments at a wildlife rehabilitation center. Listed Turtles shall be transported to Willowbrook Wildlife Center in Glen Ellyn. Turtles shall be screened for known turtle diseases. Should there be a change in the designated facility, the Department shall notify Hanson.
 - c. Construction areas that are active within the active turtle season shall be searched for turtles before the start of work each day. If turtles are found within construction areas, efforts shall be made to determine where the turtle bypassed the silt fencing and the fencing repaired to prevent further entry.
 - d. A response protocol has been developed among the Department, Forest Preserves, and local conservation partners. This document shall be maintained by the Department, distributed to Hanson, and shall be provided by Hanson to all contractors along with the biological information on the listed species. In the event that the Department receives notification that the list has been revised by the Blanding's Turtle Recovery team, that update shall be provided to Hanson within 30 days. The Department shall be notified immediately of the discovery of dead specimens and will provide guidance on preservation and disposition. As the protocol is updated, it will be forwarded to Hanson.
 - e. **A report including, but not limited to, the survey methodology utilized, the species and numbers of turtles located, photos of the plastron, the age and sex of each individual located, and maps of the area searched and the relocation site shall be provided to the Department by March 1 of the following year.**

13. Hanson shall conduct, or cause to be conducted, the following habitat restoration and/or enhancement efforts as part of the mitigation:
 - a. In the River South and Fitzpatrick Seep Parcels, adult and larval Hine's Emerald Dragonfly habitat shall be improved and expanded. Invasive plant species shall be reduced, and native plant communities shall be reestablished.
 - b. In the Long Run and ComEd Parcels, Hine's Emerald Dragonfly adult habitat shall be restored. Invasive species, and woody plant species shall be removed, and native plant communities shall be reestablished. Historic and potential larval Hine's Emerald Dragonfly habitat may be restored in areas where the appropriate hydrology, soil, and plant structure exists or can be developed.

- c. The existing wet-mesic dolomite prairie habitat in Middle Parcel shall be transplanted to areas of the ComEd Parcel where topsoil has been scraped off or in areas that spoil piles were placed.
 - d. In the River, North, Far North, and River North Parcels, adult Hine's Emerald Dragonfly, and turtle habitat shall be enhanced. *Phragmites* and other invasive plant species shall be removed, and native plant communities shall be reestablished.
 - e. **All parcels with restored or enhanced habitat (North, Far North, River North, River, River South, Fitzpatrick Seep, ComEd, and Long Run), along with the River South Bluff Parcel, shall be protected in perpetuity.** Permanent protection shall be provided through either a donation of the land to a conservation organization, by establishing a deed restriction or conservation easement over these parcels that will be held by a conservation organization, or by dedicating the parcels as a Nature Preserve, or a similar instrument.
14. Hanson shall conduct, or cause to be conducted, monitoring for the success of restored and/or enhanced habitat parcels (River South, Fitzpatrick Seep, River, North, River North, Far North, ComEd, and Long Run):
- a. Mitigation parcels shall be monitored for plant species abundance, plant species diversity, and habitat structure, as described in the HCP. Vegetation monitoring shall take place along permanent transects that run through representative areas of each restored or enhanced community.
 - b. The wet-mesic dolomite prairie transplant in the ComEd parcel shall be monitored for native and nonnative cover in the third and fifth years following the transplant. Native cover should be greater than 90% of the pre-transplant native cover. If this standard is not met, appropriate measures shall be taken to address the issue. Adaptive management may include seeding with appropriate native species and/or additional control of undesirable woody or herbaceous species.
 - c. Hine's Emerald Dragonfly larval habitat in River South Parcel shall be monitored to ensure that weedy species such as cattail and willow are reduced. Extent of weedy species shall be measured with GPS or on an aerial photograph before and after treatment to calculate area of habitat expansion. If after two years, larval habitat area has not expanded by 40%, management methods shall be reevaluated and adjusted as needed to expand habitat. Management shall continue as needed to maintain 40% expansion of larval habitat area, unless no increased adult use of these areas is observed.
 - d. The created turtle nesting habitat in River Parcel shall be inspected each month during the turtle active season (March 16-October 31) to assess use by turtles and habitat conditions. After two years, if no evidence of use is observed and habitat conditions degrade (loose soil is not maintained or plant species that inhibit turtle nesting establish in the area), then management methods shall be reevaluated and adjusted as needed to restore the originally targeted habitat conditions. This reevaluation process shall be repeated every two years. If it is determined that appropriate nesting habitat cannot be created at this location, then turtle nesting restoration shall be attempted in another appropriate location on a different mitigation parcel.

15. Hanson shall conduct, or cause to be conducted, the following species monitoring efforts:
 - a. Surveys shall be conducted for Hine's Emerald Dragonfly activity following the methods of Soluk and Mierzwa's 2012 survey, unless altered by the USFWS and Department. More detailed descriptions of these currently accepted methods are included in the HCP.
 - b. The above Hine's Emerald Dragonfly larval and adult surveys shall be conducted according to the following schedule:
 - i. Adult surveys shall be conducted every four years on a rotating basis in newly restored or enhanced adult habitat areas (Far North, North, River North, Long Run, and ComEd) until vegetation performance standards have been met. After standards have been met, surveys shall occur in these parcels every five years for the duration of this authorization.
 - ii. Adult surveys shall be conducted in known adult habitat areas (River South and Fitzpatrick Seep) every three years during mining and construction activities in Pierce Eich Quarry. Once mining and construction activities in Pierce Eich Quarry have ceased, surveys shall occur every five years for the duration of this authorization.
 - iii. Larval surveys shall be conducted in areas with known larval habitat that are adjacent to areas undergoing restoration activities using heavy equipment. These surveys shall be conducted every two years while the restoration in the adjacent parcel is taking place, and every five years for the duration of the authorization once restoration is complete.
 - iv. Larval surveys shall be conducted in areas with known larval habitat that could be affected by mining activities (River South). These areas shall have representative sampling performed and be visually inspected annually while mining activities are taking place in adjacent parcels. Once work has been completed in adjacent parcels, these areas shall be surveyed every five years for the duration of this authorization.
 - v. Visual inspections of suspected larval habitat (Fitzpatrick Seep, ComEd, Long Run) shall occur every five years after vegetative restoration/enhancement is deemed complete.
 - vi. Adult point counts shall occur in various parcels to assess connectivity. The locations of these shall be determined by vegetative monitoring transects and their vegetative conditions. These shall occur at least 10 times during the life of the permit (or roughly every three years).
 - c. **Detailed reports including, but not limited to, the survey methodology utilized, the species and numbers of individuals located, and a map of the species locations, shall be provided to the Department by March 1 of the following year.**
16. Copies of any reports, updates, modifications, or other project documentation required by the USFWS Incidental Take Permit (ESPER0026027) issued on November 15, 2021, shall be provided concurrently to the Department. Likewise, all reports under this authorization shall be provided to the USFWS unless USFWS determines in writing that such submissions are not necessary. Reports shall include the following:
 - a. Brief summary or list of activities completed during the reporting year

- b. Annual and cumulative acreage of land disturbed
- c. Pre-construction documentation, when needed, of listed species
- d. Dates and locations of listed species found (photograph and GPS coordinates, for turtles, this should include the plastron photo and notch combination)
- e. Adaptive management measures implemented, including frequency, type, and description, if needed
- f. Summary of vegetation and species monitoring measures
- g. Status of the dolomite prairie transplant, including monitoring results
- h. An assessment of adaptive management measures and any changes made to improve implementation of such measures
- i. Annual and cumulative take of Hine's Emerald Dragonfly, Blanding's Turtle, and Spotted Turtle
- j. List, description (with graphic representation, if needed), and quantification of mitigation activities, and their performance during the previous year
- k. Summary of meetings held with supporting partners and/or regulatory agencies
- l. An estimate and description of the anticipated compensatory mitigation for the upcoming year, including any changes to the mitigation plan
- m. An estimate and description of the anticipated construction/mining activities that will be carried out during the upcoming year, identifying activities that will be in the vicinity of Hine's Emerald Dragonfly, Blanding's Turtle, and Spotted Turtle habitat.
- n. **The annual report for the previous calendar year is due to the Department by March 1st.**

17. As mitigation for the surface mining activities that will impact 49.6 acres of habitat for the species, Hanson has committed to granting a perpetual restriction over the surface of 530.9 acres of property through a Declaration of Covenants, Conditions, and Restrictions (hereinafter referred to as Declaration) within 30 days after permits are issued, and any potential legal action is resolved.

Hanson has named these parcels ComEd, Long Run, River, River South, River South Bluff, Fitzpatrick Seep, Far North, River North, and North (hereinafter collectively referred to as Restricted Property), the legal descriptions of each shall be found in the Declaration (provided as an appendix to the HCP):

- a. The Restricted Property shall be retained in its natural state, or restored, enhanced or maintained as suitable for the listed species;
- b. Of the Restricted Property, future installation of sub-surface mining ventilation shafts and access improvements shall be allowed as detailed in the Declaration. These structures shall be constructed to have the least impact to the mitigation value of the Restricted Property, established in the USFWS Permit, the USACE 404 Permit, and this ITA. If state listed species will be impacted, then regulatory requirements for the impacts will be followed;
- c. No surface mining shall occur on this property. However, Hanson will retain mineral rights to subsurface deposits;
- d. Employees of the Department, USFWS, and USACE shall be granted access to inspect the Restricted Property;

- e. No additional dredge or fill material shall be placed on the Restricted Property unless necessary for mitigation actions;
- f. No additional utility lines shall be placed overhead or within the Restricted Property. Existing lines shall remain, but maintenance activities requiring intrusion beyond the reasonable scope of existing easement rights, shall require prior authorization from the Department and USFWS;
- g. No modifications to the hydrology of the Restricted Property shall occur, unless required for the completion of mitigation;
- h. There shall be no further industrial, commercial, or residential development on the Restricted Property;
- i. There shall be no removal or destruction of trees or plants, mowing, draining, plowing, quarrying or surface mining of topsoil, sand, rock, gravel, minerals, or other material, except as necessary for the mitigation plans;
- j. Motorized vehicles shall only be used for mitigation activities;
- k. Applications of insecticides and herbicides shall only be used for mitigation activities;
- l. No hunting, trapping, or grazing or keeping of livestock shall occur on the Restricted Property, without authorization from the Department, USFWS, and USACE;
- m. These acres shall be protected in perpetuity by Hanson Aggregates Midwest, Inc., unless written agreement of the transfer is granted by the Department, USFWS, and the USACE.
- n. Hanson reserves the right to convert this Declaration to a conservation easement under Illinois Law (the Real Property Conservation Rights Act (765 ILCS 120) and the Illinois Natural Areas Preservation Act (525 ILCS 30)). The USFWS, USACE, and IDNR will consider such future action if the holder of the future easement is qualified under the Real Property Conservation Rights Act and/or the Illinois Natural Areas Preservation Act.
- o. Hanson further agrees that the terms of this Declaration will be such that the holder of the future easement will be required to continue to carry out in perpetuity the purposes and requirements of this Declaration.

Hanson will retain a setback area along the west side of North and Far North Parcels (350 feet east from Route 53). This setback area will cover 6.49 acres of North Parcel, and 10.65 acres of Far North, and contains 1.10 and 7.30 acres of adult Hine's Emerald Dragonfly habitat. This property will be available for potential future development and carries an Ecological Maintenance Easement that allows for impacts (i.e., dust and smoke) to the parcels from any ecological management activities on the adjoining parcels. Potential future development in the setback area of North and Far North parcels shall require environmental review by USFWS and the Department, including following the required EcoCAT process as described in 17 Ill. Adm. Code 1075.

18. All reports, notifications, and other project documentation shall be submitted to:

Illinois Department of Natural Resources
Office of Resource Conservation

Endangered Species Program – Incidental Take Authorization Coordinator
One Natural Resource Way
Springfield, IL 62702-1271

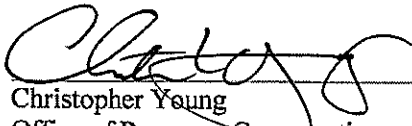
(217)557-8243

DNR.ITAcoordinator@illinois.gov

The Department's Endangered Species Program shall provide all reports required under this agreement to the Illinois Endangered Species Protection Board and to the Department's Natural Heritage Database.

19. The Hanson official identified below is authorized to execute this agreement. Execution by Hanson indicates acceptance of all terms and conditions described in this authorization.
20. The execution of this agreement does not waive or excuse the responsibilities of Hanson to comply with other Federal, State, or local regulations, including but not limited to obtaining any required permits for the execution of this project.

For the Illinois Department of Natural Resources:

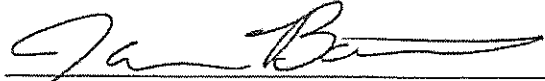


Christopher Young
Office of Resource Conservation

3/11/2022

Date

For Hanson Aggregates Midwest, Inc.:



James Bottom
Vice President/General Manager

2-9-2022

Date