

**CONSERVATION PLAN
FOR INCIDENTAL TAKING OF
ENDANGERED SPECIES
INDIANA CRAYFISH (*Orconectes Indianensis*)**

**Project Applicant: Saline County
Project Name: Peak Road Bridge Replacement
Project County: Saline County
Area of Impact: 0.024 Acres**

**Peak Road (TR 230)
over Spring Valley Creek in Saline County, Illinois
Section 16-07115-00-BR
Structure 083-3253**

**Prepared by:
Brown & Roberts, Inc
1 Westridge Road
Harrisburg, IL 62946
January 17, 2018**

Conservation Plan for the Illinois-endangered Indiana crayfish (*Orconectes Indianensis*) at Peak Road (TR 230) over Spring Valley Creek in Saline County, Illinois

1. Description of the impact likely to result from the proposed taking

A. Identification of the project area

The project is located approximately 8 miles southeast of Harrisburg, IL, in the Northeast Quarter of Section 26, Township 10 South, Range 6 East, of the 3rd Principal Meridian approximately 0.75 miles south of IL Route 34; Latitude 37°37'30.05" N, Longitude 88°30'16.35" W. The project is located within and adjacent to the existing Independence Township Road 230 right-of-way. See Attachment 1, Location Map.

B. Biological Data on the Affected Species

The Indiana crayfish (*Orconectes Indianensis*) has a limited range in the lower Wabash River Valley and Ohio River Valley, where it occurs in southeastern Illinois and southwestern Indiana. It is found in shallow regions with gravel or cobble substrates in small to large creeks and small rivers. It live in rocky riffles and pools of first, second and third order streams, frequently found under rocks, in woody debris and in shallow burrows within these streams.

Threats to the species' continued existence include habitat alterations such as gravel/cobble removal and the damming of flowing waters, and the introduction of non-native crayfish species.

The Illinois Natural History Survey (INHS) found this species during an on-site survey May 17, 2017. Twelve individuals of two crayfish species were collected, nine Indiana crayfish and three calico crayfish. Three Indiana crayfish were collected from under rip-rap immediately downstream of the Peak Road bridge and six individuals were collected from the shallow riffle approximately 25 yards upstream. Given the presence of Indiana Crayfish and suitable habitat for species in Spring Valley Creek in the vicinity of Peak Road (TR 230) bridge, and at history of collection of the Indiana Crayfish in Spring Valley Creek and the South Fork Saline River, it is believed that a large, reproducing population occurs at and very near the Peak Road bridge project site. As such, all efforts to reduce the input of siltation should be implemented since high levels of siltation can fill in the interstitial spaces found under rocks that are used for refuge by Indiana crayfish. (See Attachment 2.)

C. Description of Project Activities

The proposed project major activities include:

1. Removal of the existing structure. This work is typically done with a trackhoe excavator working from adjacent roadway.
2. Reshaping of the stream slopes to fit the proposed structure and placing riprap on the slopes. This work is typically done with a trackhoe excavator working from adjacent roadway.
3. Construction new abutments. This work utilizes a crane for the pile driving operation. The abutment forms and the concrete is place from the adjacent roadway.
4. The proposed PCC Bridge deck will be placed with a crane operating on the adjacent roadway.
5. Roadside ditched will be shaped and final seeding and final erosion control measures constructed.

A plan and profile sheet showing proposed improvements and right-of-way is includes as Attachments 3. No cofferdam or causeways will be constructed. No equipment is anticipated to be in the water.

The project start date will be dependent on the approval date of the ITA Conservation Plan and letting schedules. The project duration is expected to be 30 days.

D. Anticipated Adverse Effects on the Listed Species

Primary threats to the Indiana Crayfish fall into two categories: habitat alteration and introduction of non-native species. Habitat alteration can consist of siltation, stream channelization, debris, debris removal or substrate removal.

For the purposes of this project, potential adverse affects consist mainly of excavation and placing of riprap around the bridge piers. Excavation could create minor, short term siltation in the area immediately downstream of the structure, while some crayfish could be covered or crushed during the excavation and placement of the riprap. There will be noise generated by construction equipment. Loud noise and vibration will be generated by pile driving activities that will normally have a single day duration.

2. Measures to Minimize and Mitigate Impacts

A. Plans to minimize the affected area, the amount of individuals of the endangered species that will be taken and the habitat affected

The affected area will be minimized by limiting the work area to the proposed right-of-way. Total impacted area within the stream is estimated to be 15' wide by 70' long or approximately 1050 Square Feet. Based on the results of the INHS survey report is anticipated that 3-10 individuals will be taken.

Mitigation efforts include the placement of riprap in the area of disturbed habitat and around the bridge abutments for erosion and scour prevention. The rock used for riprap will be RR4 without bedding stone or fabric and will provide suitable habitat. Construction date restrictions and instream rock relocation are proposed as part of this project and are detailed in Section C below.

B. Plans for management of the area affected by the proposed action that will allow continued use of the area by the species.

Similar habitat is located both upstream and downstream of the structure site. The streambed and habitats will be controlled by natural processes after construction activities are completed. Crayfish should move back into the area immediately adjacent to the bridge over time. Introduction of riprap within the channel and streambed at the bridge site may actually enhance the habitat characteristics within the immediate vicinity of the structure, and the scour prevention afforded by the new bridge will protect habitat downstream of the site.

C. Description of measures to be implemented to avoid, minimize and mitigate the effects of the proposed action to the endangered species.

Due to the inherent nature and purpose of bridge replacement projects the project will not avoid the Indian Crayfish habitat. The project footprint has been limited as much as is practical and is indeed very small for a bridge replacement project.

In order to minimize potential for siltation a Storm Water Pollution Prevention Plan (SWPPP) will be implemented for the site and is included as Attachment 4. The resident engineer will monitor the activities of the contractor for compliance with special provisions regarding mitigation

and the use of best management practices (BMP's) to minimize erosion and siltation. These practices include erection of perimeter erosion barrier and temporary ditch checks, maintenance of erosion control items, temporary seeding if appropriate and construction of permanent seeding. Regular inspections will be made to ensure proper repair and maintenance of BMP's by the resident engineer, including weekly and immediately following significant rainfall events.

In order to minimize impacts to the Indiana Crayfish, in stream work shall be prohibited from March 1 through May 15.

Instream rock will be removed immediately prior to construction in the immediate vicinity of where instream construction activities will take place. The of moving the rocks is to take away the cover or habitat used by the crayfish. This measure will reduce the number of crayfish entering or occupying that part of the stream channel within the construction limits.

Four weeks prior to the start of instream work, the Saline County Engineer will notify the Bureau of Design and Environment (BDE) of the date that instream work will begin. Within one week of receipt of notification, the BDE will task the Illinois Natural History Survey (INHS) to move by hand rocks up to 25 pounds within the stream to a location just outside and upstream of the limits of construction. The moving of the rocks will be completed before the start of construction which is anticipated to be June 1, 2018. The construction is estimated to take 20 working days and should be completed August, 2018.

Proposed mitigation includes funding for the monitoring activities provided through the Intergovernmental Agreement for the Illinois Transportation Biological Survey Program between IDOT and the University of Illinois. This program is administered by the Bureau of Design and Environment in cooperation with the Illinois Natural History Survey at the University of Illinois.

The proposed placement of riprap in the channel within the road Right-of-Way will increase the potential crayfish habitat to almost 2000 square feet of riprap.

Saline County will pay \$2,170 to the Illinois Wildlife Preservation Fund for compensatory mitigation of the estimated 1050 Square Ft of instream impact.

D. Plans for monitoring the effects of the measures implemented.

The Saline County Engineer will notify the BDE when the project reaches 100% completion. BDE will then task the INHS to perform monitoring surveys.

Post construction monitoring will be performed by INHS in years 2 and 4 following completion of the project.

E. Adaptive management practices that will be used to deal with changed or unforeseen circumstances that affect the effectiveness of the measures instituted.

The project sponsor will implement the Stormwater Pollution Prevention Plan. The IDOT will monitor the construction site for proper placement and function of the selected best management practices.

Despite the best intentions, there may be practices that are specified in the SWPPP that prove to be ineffective at controlling soil erosion and sedimentation. If this is the case, the IDOT Resident Engineer shall consult the IDOT Erosion and Sediment Control Field Guide for Construction Inspection 2010 or the Illinois Urban Manual for practices that might be more effective or better suited to the site environment than the specified ones. The IDOT district Landscape Architect may be of assistance to the Resident Engineer on matters concerning corrective measures for erosion and sediment control.

F. Verification that funding to support mitigation activities will be available for the life of the conservation plan.

The project estimated budget will include line items for implementation of BMP's included in the SWPPP, including seeding of all disturbed areas draining to the stream. Maintenance and repair of SWPPP items, and additional measures implemented during construction will be paid for by change order or force account. By law, the erosion and sediment control measures will remain in place for the life of the project.

Funding for the monitoring activities will be provided through the Intergovernmental Agreement for the Illinois Transportation Biological Survey Program between IDOT and the University of Illinois. This program is administered by the Bureau of Design and Environment in cooperation with the Illinois Natural History Survey at the University of Illinois.

3. Analysis of Project Alternatives

There are four alternatives for this project and the reasoning why these alternatives are not being considered as a viable option.

A. No build

Peak Road is a dead end road and is the only route available to access property south of the bridge over Spring Valley Creek. The only alternative that does not result in a taking of the listed species is leaving the bridge as is. This would result in a structurally and functionally deficient bridge being left in place. Normal maintenance measures cannot correct the deficiencies, and the structure will continue to deteriorate and fail. This alternative is neither prudent nor feasible, due to the unacceptable safety hazard it poses and the restrictions an eventual closure would place on local residents and property owners.

B. Leave existing bridge in place and construct a new structure on an offset alignment.

This alternative is not considered feasible. It would eliminate taking of the species at the current bridge site, but would necessitate taking of the species at a location either immediately upstream or downstream of the structure at the site of new construction. This option would require the acquisition of substantial additional right-of-way, and the disturbance of additional areas adjacent to the existing right-of-way, substantial grading and significant tree removal.

C. Rehabilitate the existing structure.

Rehabilitation of the existing structure is not considered feasible. The existing structure cannot be rehabilitated. Therefore this alternative is not considered feasible.

D. Construct a new structure on existing alignment.

This is the preferred alternative. Complete removal and replacement of the bridge will provide the maximum benefit to area residents. Minimal additional right-of-way will be required to construct the new structure on the present alignment. Roadway approach, excavation and embankment work will be minimized. Work within the channel will also be minimized. This is the most practical and cost effective option for this project.

4. Data and information regarding survival of the species after the proposed take is complete.

The Indiana crayfish occurs in shallow regions with large rock/cobble substrates in small to large streams. Given the collection of the species, the abundant presence of suitable habitat both up and downstream of the bridge, and the history of collection of the Indiana crayfish in Spring Valley Creek, it is believed that a large, reproducing population occurs at or in the immediate vicinity of the Peak Road bridge. Due to the small area affected by construction of the new bridge, it is expected that the proposed take will not reduce the survivability and recovery on the Indiana Crayfish in the State of Illinois.

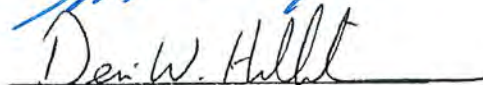
5. An implementing agreement, which shall include, but not be limited to:

A. Names of all participants in the execution of the conservation plan, including public bodies, corporations, organizations, and private individuals.

Jeffrey Jones
Saline County Engineer



Dennis W. Hillebrenner
Local Roads & Streets Engineer
Illinois Department of Transportation, District 9



B. The obligations and responsibilities of each of the identified participants with schedules and deadlines for completion of activities in the conservation plan and a schedule for preparation of progress report to be provided to the Department.

The Illinois Department of Natural Resources is responsible for the review of this conservation plan and for the subsequent issuance of the Incidental Take Authorization.

The Illinois Department of Transportation is responsible for all biological clearance coordination and recommendations related to the project.

Saline County is also responsible for securing authorization for the incidental take; securing all permits, Section 404 and Office of Water Resources; inspection of the work and contractor compliance with the contract documents.

The activities in the conservation plan will be implemented concurrently with the contract for the roadway work.

Post construction monitoring will be performed by INHS in years 2 and 4 following completion of the project. Monitoring reports will be prepared by the INHS and submitted to the BDE for review. Monitoring reports will be coordinated with the IDNR Division of Ecosystems and Environment, Transportation Review Program.

C. Assurances that each participant in the execution of the conservation plan has the legal authority to carry out their respective obligations and responsibilities under the conservation plan.

IDOT is authorized by the Illinois Highway Code to carry out its duties of providing safe and efficient highways for Illinois citizens.

The Illinois Natural History Survey (INHS) has the E&T permits to perform this work.

D. Assurances of compliance with all other federal, state, and local regulations pertinent to the proposed action and to execution of the conservation plan.

The Illinois Department of Transportation exclusively abides by the National Environment Policy Act and all associated federal and state environmental laws in carrying out their mission of performing the most environmentally sensitive methods of transportation planning and engineering. The Indiana crayfish is listed as endangered in Illinois and is covered by the Illinois Endangered Species Act of 1971 only. Therefore, compliance under the federal Endangered Species Act of 1973 is not required. No known local regulations are pertinent to this conservation plan.

E. Copies of any federal authorizations for taking already issued to the applicant.

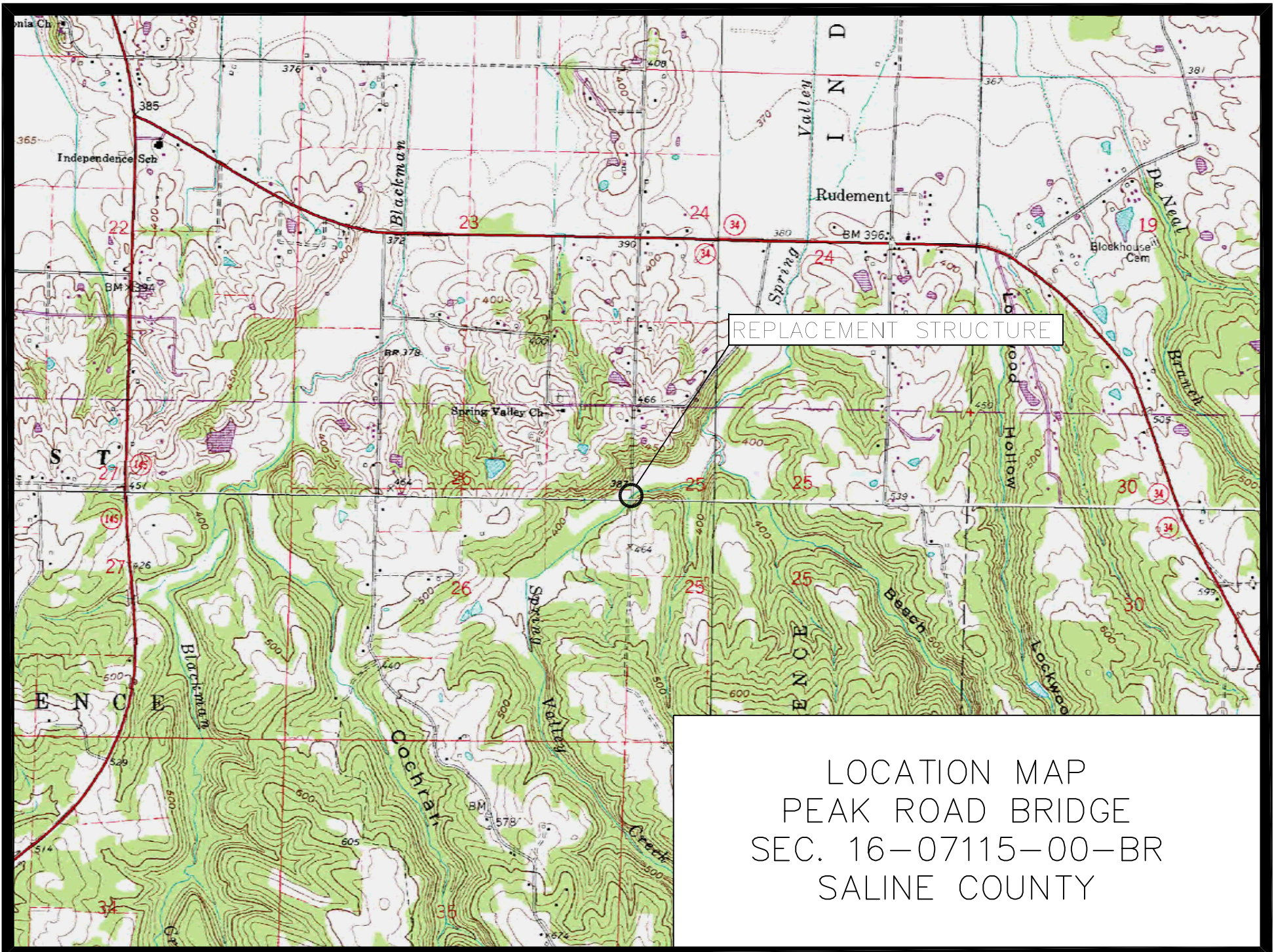
Not applicable since the Indiana crayfish is not federally threatened or endangered.

F. For projects that will result in the taking of endangered or threatened species of plant, copies of expressed written permission of the landowner.

Not applicable for the Indiana crayfish.

6. Attachments

1. Location Map
2. INHS Aquatic Survey Report "Survey for Indiana Crayfish in Spring Valley Creek at Peak Road Bridge, Saline County, Illinois", dated August 11, 2017, and prepared by:
Christopher A. Taylor
INHS/IDOT Statewide Biological Survey & Assessment Program
Center for Biodiversity
Illinois Natural History Survey
607 Peabody Drive
Champaign, IL 61820
ctaylor@mail.inhs.uiuc.edu
3. Plan and profile drawing with proposed construction limits
4. Storm Water Pollution Prevention Plan



REPLACEMENT STRUCTURE

LOCATION MAP
PEAK ROAD BRIDGE
SEC. 16-07115-00-BR
SALINE COUNTY



Survey for Indiana Crayfish in Spring Valley Creek at the Peak Road bridge, Saline County, Illinois

IDOT Sequence Numbers: 20768



Prepared by:
Christopher A. Taylor
INHS/IDOT Statewide Biological Survey & Assessment Program
Program Report 2017 (95)

11 August 2017



Project Summary

This report is submitted in response to a request from IDOT for INHS personnel to sample for Indiana Crayfish in Spring Valley Creek (Saline River drainage) in the immediate vicinity of the Peak Road bridge, Saline County, Illinois. The assessment was conducted on 17 May 2017. Nine state endangered Indiana Crayfish individuals were captured during the survey.



Approved By: Kevin Cummings, Further Studies Aquatics
Group Coordinator-Malacologist

Surveys Conducted By: Christopher A. Taylor, Field Biologist
Christopher J. Rice, Field Assistant

GIS Layers: Janet Jarvis, Remote Sensing Specialist

University of Illinois
Prairie Research Institute
Illinois Natural History Survey
Statewide Biological Survey and Assessment Program
1816 South Oak Street
Champaign, Illinois 61820

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Cover photo: Spring Valley Creek looking downstream of the Peak Road bridge, Saline County, Illinois. Photograph was taken 17 May 2017 (C. A. Taylor photo).

INTRODUCTION

This report is submitted in response to a request by Vincent Hamer of IDOT to Wendy Schelsky of INHS dated 11 May 2017 for a survey of crayfishes in Spring Valley Creek at the Peak Road bridge, Saline County, Illinois. Particular attention was to be focused on the presence of the state endangered Indiana crayfish, *Orconectes indianensis*. IDOT proposes to remove and replace the existing bridge structure – a project that will include acquisition of additional ROW or easement, and in-stream work.

PROJECT LOCATION

Crayfish monitoring was conducted in Spring Valley Creek from 30 yards upstream to 10 yards downstream of the Peak Road bridge located 2.5 mi SE Mitchellville in Saline County, Illinois (**Figure 1**). A point centered on that bridge is used for the following locality information as a reference point for the project: latitude 37.6252°N, longitude 88.5045°W. **Appendix 1** references a shapefile with sampling point information for the Spring Valley Creek project site, as discussed in this report.

HABITAT CHARACTERIZATION

H Spring Valley Creek at the Peak Road bridge was predominately a slow flowing pool (cover photo), with a shallow riffle immediately downstream of the bridge and another approximately 25 yards upstream of the bridge. The pools averaged 2.8' in depth while the riffles were 1-2" in depth. The streambed was 1.0 yards wide in the riffles and 4.5 yards wide in the pools. Substrate was firm mud and rip-rap at and immediately downstream of the bridge and gravel and sand in the upstream riffle. Pool substrate was firm mud and silt. Both stream banks upstream of the bridge were densely wooded while those downstream were tree-lined and bordered by actively grazed pasture.

BACKGROUND

Spring Valley Creek drains to the northeast from the Peak Road bridge site, directly into South Fork Saline River. Records from the INHS Crustacean Collection indicate that the devil crayfish (*Cambarus diogenes*) and calico crayfish (*Orconectes immunis*) are historically known to occur in the creek. Records from the South Fork Saline River drainage in southern Illinois indicate that three crayfish species are known to occur there: the devil crayfish, the calico crayfish, and the state endangered Indiana crayfish (*O. indianensis*). In addition to Spring Valley Creek, the state endangered Indiana crayfish has been collected from the South Fork Saline River drainage at two historical sites – Rock Branch Battle Ford Creek and the Little Saline River. Both creeks are northeastern flowing tributaries to the South Fork Saline River and occur within 7 miles to the east of Spring Valley Creek. The most recent collection of the species was from Spring Valley Creek at the IL Hwy 34 bridge on 28 June 2016.

The Indiana crayfish occurs in clean higher gradient creeks in areas with substrates of fractured bedrock and/or cobble. The species uses the areas under cobble and large rocks as refugia. Mating in the Indiana crayfish could occur from late fall until March. Females have been observed carrying eggs in Illinois from January through April (Page 1985).

METHODS

A 40-yard stretch of Spring Valley Creek at the Peak Road bridge was sampled for crayfishes by INHS personnel C.A. Taylor and C. J. Rice on 17 May 2017. Sampling was conducted by using 5' x 10' minnow seine and flipping over rocks by hand for a period of one half hour. All crayfishes were identified, counted, and released (**Table 1**).

The current status of threatened and endangered species of fishes discussed in this report is taken from Illinois Endangered Species Protection Board [IESPB] (2011), and Mankowski (2010, 2012). Nomenclature for crayfishes follows Hobbs (1989).

RESULTS AND DISCUSSION

Twelve individuals of two crayfish species (**Table 1**) were collected at the project location. Of these, nine were of the State Endangered Indiana Crayfish. Three Indiana crayfish were collected from under rip-rap immediately locate downstream of the Peak Road bridge while the remaining six individuals were collected from the shallow riffle approximately 25 yards upstream of the bridge.

Given the presence of Indiana crayfish and suitable habitat for the species at Spring Valley Creek at the Peak Road bridge, and the history of collection of the Indiana crayfish in Spring Valley Creek and the South Fork Saline River drainage, we believe that a large, reproducing population occurs at and very near the Peak Road bridge project site. As such, all efforts to reduce the input of siltation should be implemented since high levels of siltation can fill in the interstitial spaces found under rocks that are used for refugia by Indiana crayfish.

ACKNOWLEDGMENTS

J.L. Jarvis (INHS) assisted in preparing the map in **Figure 1** and the associated shape file referenced in **Appendix 1**.

LITERATURE CITED

- Hobbs, H.H. Jr. 1989. An illustrated checklist of the American crayfishes (Decapoda: Astacidae, Cambaridae, and Parastacidae). *Smithsonian Contributions to Zoology*. 480: 1-236.
- Illinois Endangered Species Protection Board. 2011. Checklist of Endangered and Threatened Animals and Plants of Illinois. Illinois Endangered Species Protection Board, Springfield, Illinois. 18 pp.
- Mankowski, A., editor. 2010. Endangered and Threatened Species of Illinois: Status and Distribution, Volume 4 - 2009 and 2010 Changes to the Illinois List of Endangered and Threatened Species. Illinois Endangered Species Protection Board, Springfield, Illinois. iii+38 pp.
- Mankowski, A. 2012. The Illinois Endangered Species Protection Act at Forty: a review of the Act's provisions and the Illinois List of Endangered and Threatened Species. Illinois Endangered Species Protection Board, Springfield, Illinois. 152 pp. Published online at: <http://www.dnr.illinois.gov/ESPB/Pages/default.aspx>.
- Page, L.M. 1985. The crayfishes of Illinois. *Illinois Natural History Survey Bulletin* 33: 335-448.



Crayfish survey location on Spring Valley Creek at Peak Road (Seq no. 20768) Saline County, Illinois.

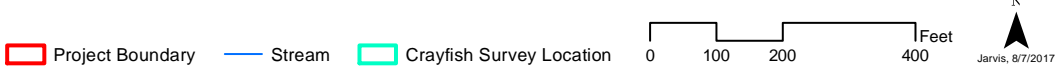


Figure 1. The Peak Road bridge over Spring Valley Creek (Saline County, Illinois) where a crayfish survey was conducted by INHS personnel on 17 May 2017. Area in green indicates the stretch of Spring Valley Creek in which the crayfish survey was conducted. Map created by J. L. Jarvis (INHS).

Table 1. Crayfishes collected by INHS personnel C.A. Taylor and C.J. Rice on 17 May 2017 from Spring Valley Creek at the Peak Road bridge, Saline County, Illinois. # = number of individuals collected (SE=State Endangered).

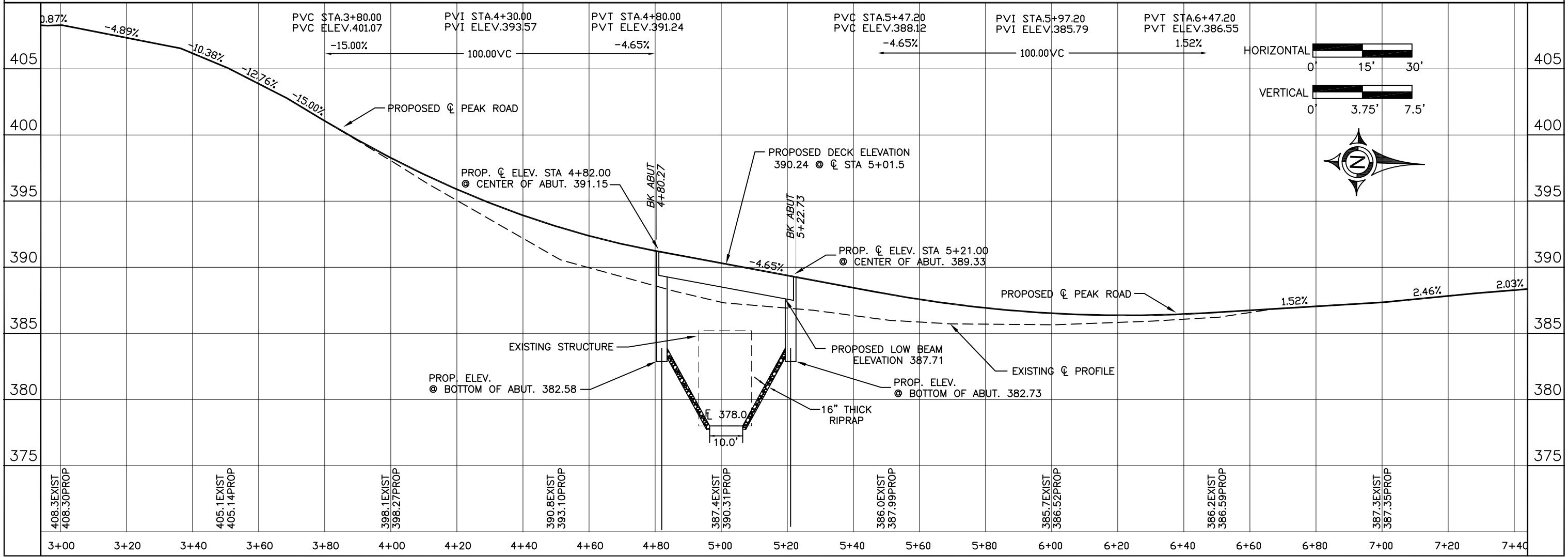
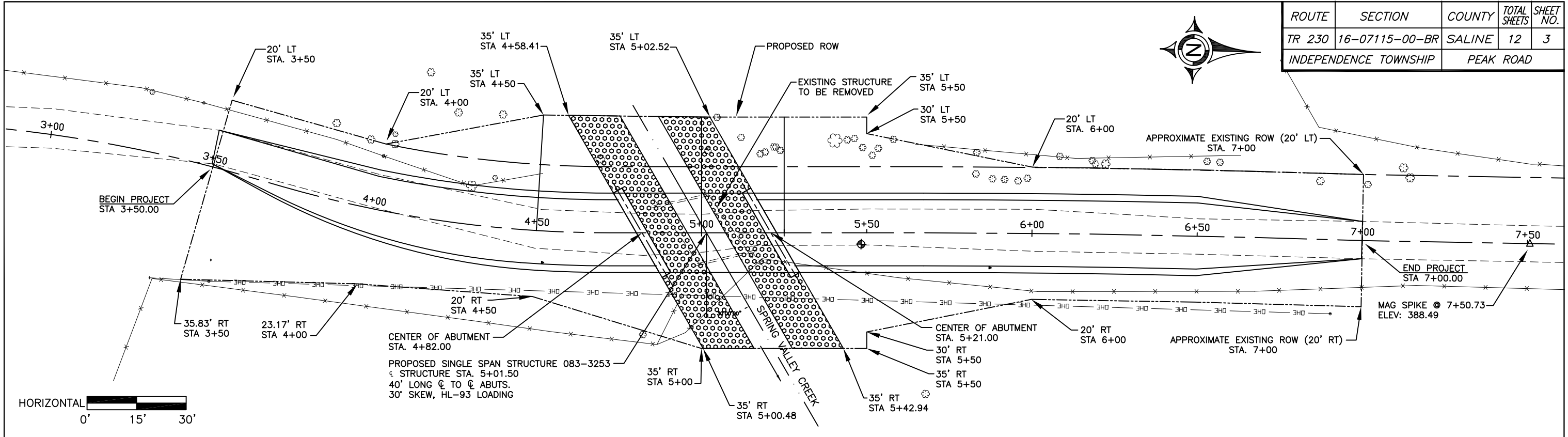
Family	Scientific name	Common name	#
Cambaridae	<i>Orconectes indianensis</i> SE	Indiana crayfish	9
	<i>Orconectes immunis</i>	calico crayfish	3

Appendix 1

This Project Location section references <20768_Crayfish_GIS.zip> – containing an ArcGIS shapefile with sampling point information for the Spring Valley Creek site discussed in this report where a survey for crayfish was conducted by INHS personnel on 17 May 2017.

The ArcGIS shapefile and this report were both submitted to IDOT via the IDOT Site Assessment Tracking System extranet website (Frostycap) on 11 August 2017.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 230	16-07115-00-BR	SALINE	12	3
INDEPENDENCE TOWNSHIP		PEAK ROAD		



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TR 230	16-07115-00-BR	SALINE	12	12
INDEPENDENCE TOWNSHIP			PEAK ROAD	

DESCRIPTION OF STABILIZATION PRACTICES
DURING CONSTRUCTION

1. During construction, areas outside the construction limits shall be protected.
2. Within the construction limits, areas which may be susceptible to erosion as determined by the Engineer shall remain undisturbed until full scale construction is underway.
3. Earth stockpiles shall be temporary seeded if they are to remain unused for more than 14 days.
4. As soon as construction proceeds, the contractor shall institute the following as directed by the Engineer:
 - A) Place temporary erosion control facilities at locations shown in the plans.
 - B) Temporarily seed erodable bare earth on a weekly basis to minimize the amount of erodable surface area within the contract limits.
 - C) Construct roadside ditches and provide temporary erosion control systems.
 - D) Temporarily divert water around proposed culvert locations.
5. Excavated areas shall be permanently seeded immediately after final grading. If not, they shall be temporarily seeded if no construction in the area is planned for 7 days.
6. All necessary measures shall be taken by the contractor to contain any fuel or pollutant in accordance with EPA water quality regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site.
7. The Resident Engineer shall inspect the project daily during construction activities. Inspection shall also be done weekly and after rains of 0.5 inches or greater or equivalent snowfall and during any winter shutdown period.
8. Sediment collected during the construction by the various temporary erosion control systems shall be disposed of on site on a regular basis as directed by the Resident Engineer. The cost of this maintenance shall be considered incidental to the erosion control system.
9. The temporary erosion control systems shall be removed as directed by the Engineer after use is no longer needed or no longer functioning. The cost of removal shall be included in the unit bid price for various temporary erosion control pay items.

DESCRIPTION OF STRUCTURAL PRACTICES
AFTER FINAL GRADING

1. Temporary seeding shall be left in place with proper maintenance until permanent erosion control and all proposed turf areas seeded and established.
2. Once permanent erosion control systems as proposed in the plans are functional and established, temporary items shall be removed, cleaned up and disturbed turf areas reseeded.

MAINTENANCE AFTER CONSTRUCTION

1. Construction is complete after FINAL acceptance by I.D.O.T. final inspection. Maintenance up to this date will be by the contractor.

MISCELLANEOUS

1. Temporary ditch checks shall be located at every 1.5 feet of fall/rise in ditch grade.
2. Temporary erosion control seeding shall be applied at the rate of 100 lbs/acre.
3. Straw bales, hay bales, perimeter erosion control barrier and silt fences will not be permitted for temporary or permanent ditch checks. Ditch checks shall be composed of aggregate, silt panels, rolled excelsior, urethane foam geotextile (silt wedges) and/or other material approved by the erosion and sediment control coordinator.
4. All erosion control products furnished shall be specifically recommended by the manufacturer for the use specified in the erosion control plan. Prior to the approval and use of the product, the contractor shall submit to the Engineer a notarized certification by the producer stating the intended use of the product and the physical properties required for this application are met or exceeded. The contractor shall provide manufacturer installation procedures to facilitate the Engineer in construction inspection.
5. All items shall be constructed as shown on STANDARD 280001 and as directed by the Engineer. Maintenance and cleaning of erosion control items shall be considered part of the respective erosion control pay item.

STORM WATER POLLUTION PREVENTION PLAN

The following Plan is established and incorporated in the project to direct the Contractor in the placement of temporary erosion control systems and to provide a storm water pollution prevention plan for compliance under NPDES.

The purpose of this plan is to minimize erosion within the construction site and to limit sediments leaving the construction site by utilizing proper temporary erosion control systems and providing ground cover within a reasonable amount of time.

Certain erosion control facilities shall be installed by the Contractor at the beginning of construction. Other items shall be installed as directed by the Engineer on a case by case situation depending on the Contractor's sequence of activities, time of year and expected weather conditions.

The Contractor shall construct permanent erosion control systems and seeding within a time frame specified herein and as directed by the Engineer, therefore minimizing the amount of area susceptible to erosion and reducing the amount of temporary seeding. The engineer will determine if any temporary erosion control systems shown in the plans can be deleted and if any additional temporary erosion control systems, which are not included in the plans, shall be added. The contractor shall perform all work as directed by the Engineer and as shown in STANDARD 280001.

Section 280, Temporary Erosion Control, of the Standard Specifications additionally supplements this plan.

DESCRIPTION OF CONSTRUCTION ACTIVITIES

1. Temporary ditch checks shall be located at every 1.5 feet of fall/rise in ditch grade.

INTENDED SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES

1. Brush removal. Trees to remain will be protected against damage.
2. Construct New Bridge.
3. Excavation and grading.
4. Placement of Aggregate Surface Course.
5. Seeding and permanent erosion control systems.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 230	16-07115-00-BR	SALINE	12	11
INDEPENDENCE TOWNSHIP			PEAK ROAD	

AREA OF CONSTRUCTION SITE

1. The total area of the construction site is estimated to be 0.41 Acres of which approximately 0.41 Acres will be disturbed.

OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THE SWPPP AS REFERENCED DOCUMENTS.

1. Information of the terrain was obtained from topographic maps.
2. Project plan documents, specifications and special provisions and plan drawings indicating the drainage patterns and location of existing drainage features were utilized in the preparation of the proposed placement of temporary erosion control systems.

DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF

1. Proposed culvert outlets are tributary to existing roadside ditches. No new discharge points will be constructed.

CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROLS

1. Existing vegetation will be preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices will include temporary seeding, permanent seeding, mulching, protection of trees, preservation of mature vegetation and other appropriate measures as directed by the Engineer. Stabilization measures shall be initiated as soon as practical in those areas of the site where construction activities have ceased, but in no case more than 7 days after the construction activity for an area has temporarily or permanently ceased.
2. Areas outside the construction limits shall be protected from construction activities.
3. Dead, diseased or unsuitable vegetation within the site shall be removed as directed by the Engineer.
4. As soon as is reasonable, the temporary erosion control system shall be installed as indicated in the plans or as directed by the engineer.

This plan has been prepared with the intent to comply with the provisions of the NPDES Permit Number ILR10, issued by the Illinois Environmental Protection Agency for storm water discharges from construction site activities.

I certify under penalty of law that this plan was prepared at my direction in accordance with a system that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

JEFFREY M. JONES, COUNTY ENGINEER

DATE:











