



STATE OF MICHIGAN PROCUREMENT
 Department Technology, Management and Budget
 Central Procurement Services
 320 S Walnut Street Lansing, MI 48933
 P.O. Box 30026, Lansing, MI 48909

CONTRACT CHANGE NOTICE

Change Notice Number **27**
 to
 Contract Number **MA18000000169**

CONTRACTOR	Board of Trustees of Michigan State University
	426 Auditorium Rd Office of Sponsored Programs
	East Lansing MI 48824
	Stacy Salisbury
	517-884-4252
	osp.awards@campusad.msu.edu
	CV0048200

STATE	Program Manager	Various	Various
	Contract Administrator	Marissa Gove	DTMB
		(517) 449-8952	
		govem1@michigan.gov	

CONTRACT SUMMARY

Natural Heritage Conservation Planning Services			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2026
PAYMENT TERMS		DELIVERY TIMEFRAME	
NET 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> Direct Voucher (PRC) <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
MINIMUM DELIVERY REQUIREMENTS			
N/A			

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		
CURRENT VALUE		VALUE OF CHANGE NOTICE		ESTIMATED AGGREGATE CONTRACT VALUE
\$18,568,603.32		\$277,339.62		\$18,845,942.94

DESCRIPTION

Please note the Program Manager or Contract Administrator may have changed, and are reflected on this Change Notice.

Effective December 16, 2025, this Contract is hereby increased by \$277,339.62 and the attached Statements of Work are added. All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement, DTMB Central Procurement approval, and State Administrative Board approval on December 16, 2025.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

Statement of Work - MNFI Work Plan

Title:	MDOT Annual Access to Natural Heritage Database		
Principal Investigator(s):	Rebecca Rogers		
Sponsor:	Mike O'Malley		
Project Beginning Date:	1 October 2025	Project End Date:	30 September 2026
Budget Request for Each Fiscal Year of Project:	\$49,114		
<p>Statement of Needs:</p> <p>The Michigan Department of Transportation (MDOT) is responsible for planning, maintenance and expansion of the State of Michigan transportation infrastructure. As part of their planning processes, as required by law, MDOT considers potential impacts to state and Federal threatened and endangered species, as well as the environment more broadly. To facilitate their commitment to environmental considerations, MDOT is seeking access to the Natural Heritage Database (NHD) to support their programmatic activities. The Michigan Natural Features Inventory (MNFI), of Michigan State University, maintains the NHD as the most comprehensive and reliable database on the location and condition of threatened, endangered, and special concern species, as well as high quality natural communities available for Michigan; access to the NHD information furthers the mission of both MDOT and MNFI.</p>			
<p>Objectives:</p> <p>1. Provide the MDOT access to NHD information products that facilitate MDOT in carrying-out its responsibilities and programmatic activities.</p>			
<p>Expected Benefits:</p> <ol style="list-style-type: none"> 1. By giving MDOT staff direct access to information products it will facilitate the department's environmental planning processes with respect to transportation infrastructure. 2. The availability of the NHD information products greatly contributes to the efficiency and effectiveness of state government by providing a ready information source and tool for MDOT to carry out its programmatic responsibilities and meet its legal requirements. 3. By having a single source for information on state and federally listed threatened and endangered species, as well as high-quality habitats, the MDOT and other state agencies can provide consistent assessments across various aspects of projects and activities. 4. By having a single database platform, the MDOT and other state agencies avoid the substantial costs of maintaining individual, redundant, and potentially conflicting sources of information on rare species and high-quality natural communities. 			

5. This project will contribute to programmatic and administrative support of MNFI as the designated NatureServe network Natural Heritage Program for Michigan. By being a member of the NatureServe network, MNFI helps not only state agencies, but a variety of Federal agencies, businesses, and conservation-related organizations avoid substantial expenses: NatureServe expends approximately \$3.5 million on each upgrade of the Biotics software alone, which is used to maintain the NHD (not counting the effort that goes into populating the databases). These costs are spread across the 83 members of the NatureServe network, lowering the cost to individual states and provinces.

Work Plan/Approach:

- A. Access. MNFI will provide MDOT access to a subset of the MNFI Natural Heritage Database (NHD) as determined by mutual agreement. Said subset is hereinafter referred to as the "MDOT Subset".

Tabular data contained in the NHD, including:

ELCODE - MNFT/NatureServe Element code - example - ABNNM080
EO_NUM - Number assigned to individual occurrences of an element
EO_ID - Unique record identifier
ACREAGE - Number of acres for EO
SNAME - species name
SCOMMNAME - state used common name
SURVEYSITE - survey site name- example- CALCITE HARBOR BREAKWATER
USESA- Federal status
SPROT - State protection status
FIRSTOBS - First observation date
LASTOBS - Last observation date
DIRECTIONS -directions to site
EO_DATA - other information about the EO
EO RANK - Quality rank for each occurrence
GRANK - Global Ranks
SRANK- State Ranks
ELCAT- Element category, i.e. Animal, Plant, Community, Other
And other fields as needed

Spatial data contained in the MDOT Subset:

- Element occurrences for the state of Michigan as represented in a spatial data format.
- Access to the web database.

B. Limits on Use and Further Distribution

1. To protect rare features from exploitation or destruction, MDOT will not disclose either the identity or location of the feature in any products for external use, unless disclosure is required by law. For example, licensee will identify species by status and category (e.g. "Federally Threatened Animal") or, alternatively, define location only to the section level of the public land survey system (PLSS).
2. MDOT may not edit the original data in the MDOT Subset but may add or delete fields for internal MDOT purposes. When responding to FOIA requests for MNFI data, the MDOT may be required to indicate

electronically or in writing the amount of electronic data deleted from each field. MDOT shall notify MNFI of any errors found, new data, or any other needed corrections or modifications to the NHD.

3. MDOT acknowledges that the MNFI data provided are considered confidential by the Michigan Natural Features Inventory of Michigan State University, a Constituent Member of the NatureServe Network for Michigan, and agrees not to release or distribute the data to parties not covered by this agreement, except as required by law. MDOT shall take all reasonable precautions to protect and maintain the confidentiality of the data and agrees it will not disclose the MNFI information to parties not covered by this work plan, except to the extent disclosure is required by law. MDOT will notify MSU in a timely manner of any requests for MNFI information under FOIA or via administrative or judicial proceedings. To the extent permitted by law, MDOT should limit released information to that information contained in MDOT-created or maintained administrative records, as electronic MNFI data are not transferred to MDOT ownership under this agreement.
4. MDOT understands and acknowledges that these data are provided for planning and assessment purposes. This agreement does not necessarily constitute MNFI concurrence with MDOT's interpretation of the data.
5. MDOT may not assign, delegate, sublicense or otherwise transfer NHD data to any other party, except with the prior written consent of MNFI.

C. Acknowledgment

MDOT, when using the MDOT Subset, shall acknowledge the Michigan Natural Features Inventory as the source of the information. MDOT shall print the following or an equivalent statement on any material produced using the MDOT Subset, with the exception of routine correspondence (i.e. permit reviews):

"These data were provided by the Michigan Natural Features Inventory (MNFI) of Michigan State University Extension. These data are not based on a comprehensive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present. In addition, although MNFI maintains high standards of quality control, MNFI makes no warranty as to the fitness of the data for any purpose, nor that the data are necessarily accurate or complete."

MNFI requests copies of any products that are distributed beyond MDOT's internal use with the exception of the above-mentioned routine correspondence.

D. Renewal and Termination of Agreement; Update of Data

1. This agreement will be effective for the period of 1 October 2025 through 30 September 2026, unless terminated. Amendments to this agreement may be proposed at any time by either party and become effective upon written approval of both parties, with the original effective period remaining unaltered.
2. At any time, either party may terminate, without cause, this agreement thirty (30) days after providing written notice to the other party. Further, MNFI may terminate, with written cause, this license immediately upon breach of the terms or conditions of this agreement.
3. Should the agreement be terminated, the licensee will within sixty (60) days of notification either:

- a. certify that all copies of these data have been destroyed; or
- b. complete arrangements with MNFI to renew this license

Timeline/Project Work Period:

Work will continue throughout the project period of 1 October 2025 through 30 September 2026.

Deliverables, Products, and Annual Milestones:

Deliverables and products that will result from this project will include the following

1. Information products derived from the NHD and delivered to MDOT will consist of the MDOT Subset in tabular and geospatial form provided as a password protected feature service.

Location: The work will be conducted in the MNFI offices located in Constitution Hall, the campus of Michigan State University, and locations statewide.

Reporting:

None.

Budget: FY26

	Cost Category	Cost
	Access fee as specified in IDC contract # 171 180000000169	\$49,114
	Total Project Amount:	\$49,114

Contract Type/Payments: This is a fixed-price contract.

Statement of Work - MDOT Rare Species Surveys 2025

MDOT Job Numbers: 9903E, 9904E, 110678, 211155, 217456, 221474, 221564, 221576, 221593, 222018, 222348

Principal Investigator: Scott Warner, Michigan Natural Features Inventory (MNFI)

Sponsor: Dave Schuen, Michigan Department of Transportation (MDOT)

Statement of Need: Services are requested to complete rare species surveys to assist MDOT with NEPA compliance and recommend mitigation and management actions for the MDOT projects listed below in section MDOT Projects Summary.

Expected Benefits: This work fulfills regulatory compliance for the State and Federal Endangered Species Acts with Michigan Department of Natural Resources (MDNR) and U.S. Fish and Wildlife Service required to obtain federal funding from Federal Highways Administration for the MDOT projects noted below in section MDOT Projects Summary. Our goal is to assist MDOT in the delivery of the Rebuilding Michigan Program set forth by the Governor. This work will provide baseline data for MDNR permitting and Section 7 consultation, if required, and strengthen the relationship between MNFI and MDOT. MNFI has many years of experience working with Michigan’s most vulnerable species. MDOT has many years of experience identifying and mitigating impacts anticipated from road construction and maintenance projects. This work will also enhance Michigan’s Natural Heritage Database by documenting rare species occurrences detected during surveys.

Timeline: April 1 – December 31, 2025. More information is provided in the sections below.

Location: The MDOT projects are located in Berrien, Cass, Ionia, Keweenaw, Macomb, Monroe, St. Clair, St. Joseph, and Washtenaw Counties. Preparation and reporting will also be conducted in Lansing.

Budget Request

This project will occur over two fiscal years and will cover multiple MDOT projects. Below, the total budget is separated by fiscal year and expense category (Table 1) and by MDOT job numbers (Table 2).

Table 1. Budget separated by fiscal year and expense category.

Expense Category	Fiscal Year 1	Year 2	Years 1 and 2
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Personnel	\$42,130.61	\$16,526.72	\$58,657.35
Travel	\$11,997.60	\$0	\$11,997.60
Supplies	\$2,719.00	\$0	\$2,719.00
Indirect Cost (Rate: 26%)	\$14,780.34	\$4,296.97	\$19,077.29
Budget Total:	\$71,627.55	\$20,823.69	\$92,451.24

Table 1. Budget separated by MDOT job number

MDOT Project	Cost
9903E - M-26/US-41 Culverts, Keweenaw County	\$10,133.85
9904E - Lake Bailey PA, M-26, Keweenaw County	\$6,715.14
110678 – M-29, Macomb and St. Clair Counties	\$8,195.13
211155 - Queen Snake Surveys, Huron River, Washtenaw County	\$9,618.38
217456 – I-75, Monroe County	\$7,482.15
221474 – US-41, Keweenaw County	\$6,923.34
221564 – M-86, St. Joseph County	\$9,476.22
221576 – I-94, Berrien County	\$9,808.95
221593 – US 12, St. Joseph County	\$9,619.03
222018 – I-96, Ionia County	\$6,578.10
222348 – M-51, Cass County	\$7,900.95
Total	\$92,451.24

Objectives, Work Plan, and Approach

Objectives

The objectives are to document rare species, document priority invasive species, recommend mitigation and management actions within areas to be impacted by upcoming MDOT projects. Hereafter, 'rare species' refers to Federal Threatened/Endangered and State Threatened/Endangered/Special Concern/Extirpated species.

Work Plan and Approach

Below, a general methodology is outlined. In section MDOT Projects Summary, any deviations from the general methodology will be provided by project where relevant.

1) Prepare for field work (April – May 2025). In collaboration with MDOT, MNFI will delineate survey areas and pull data from MDOT and MNFI on all known occurrences of rare plant species and natural communities within a 2-mile buffer. GIS layers for maps will include the extent of the survey area, bridge/culvert locations, Protected Area boundaries, aerial imagery, hydrology, and known occurrences of rare species and natural communities. MNFI will plan survey routes based upon hydrology, occurrences of rare plant species and natural communities, anticipated project impacts, habitat and phenology of target species, and interpretation of historic and contemporary aerial imagery. MNFI will create field work preparation packets for surveyors including maps and information on target species. MNFI will load maps onto mobile phones, tablets, or GPS devices. The specific time period of preparation will depend upon the MDOT project and the phenology of target species.

2) Conduct early-, mid-, and late-season surveys (April – November 2025).

General Methodology

MDOT project corridors will generally be along interstates, U.S. highways, and state highways. Along interstates and divided U.S. highways, the entire right-of-way will be surveyed from road shoulder to fence on both sides of the highway. Additionally, medians will be surveyed if aerial image interpretation and on-site drive-bys suggest the possibility of suitable habitat. Furthermore, interchanges, weigh stations, and rest areas will be surveyed. Along state highways and undivided U.S. highways, the entire right-of-way will be surveyed on both sides of the road (typically, 33 feet from centerline on either side).

Whether on interstates, U.S. highways, or state highways, meander surveys will be employed. Safety hardhats, reflective vests, and steel-toed boots will be worn. Data on rare and priority invasive species will be taken via Survey123 field app on a tablet or mobile

phone. Additional data on roadside habitats and species will be taken with a field notebook.

Mapping of Rare Species and Priority Invasives

All rare plant species encountered will be documented, whether they were predetermined target species or not. Any rare animal species incidentally encountered will also be documented, although they will not be target species, except where noted in section MDOT Projects Summary below. Rare species occurrences will be mapped as points or polygons depending upon the size of the population. Mapping will be conducted within the Survey123 field app using a mobile phone or tablet. Ideally, locational accuracy of phones and tablets will be routed to a Leica GG04, Leica FLX-100, or Eos Arrow GPS unit for sub-meter accuracy, however, standalone mobile phones or tablets will be acceptable in the event of procurement issues or technical difficulties. When Leica or Eos units are unavailable, extra care will be put toward describing GPS locations relative to conspicuous landmarks (e.g., distance and bearing from prominent trees). Spatial and associated tabular data will be automatically uploaded on a weekly basis to a shared ArcGIS Online group to which MDOT and MNFI staff have access.

Data Collection for Rare Species and Priority Invasives

A Survey123 field form will be developed between MNFI and MDOT for this project, which will allow surveyors to collect data according to Natural Heritage methodology standards while balancing MDOT's need for efficiency. The form will include the following fields: species name, abundance, vigor, habitat, associated species, and threats. The form will indicate whether each field is required and provide basic guidelines for each field.

A Survey123 field form will also be developed for priority occurrences of invasive species according to Midwest Invasive Species Information Network (MISIN) data collection standards. Invasive species are considered priorities if they present an occupational or safety hazard within MDOT rights-of-way (e.g., tall stands of phragmites which obscure vision along the road). Where feasible, MDOT is also interested in treating invasive species for ecological reasons. MNFI will focus upon documenting occurrences which are occupational or safety hazards and/or which are uncommon in the wider landscape, treatable, and likely to spread with anticipated roadwork.

3) Provide preliminary reporting via interim reports (April – November 2025). Within two weeks of each survey for each MDOT project, MNFI will deliver a brief interim report via email to MDOT (1 to 2 pages, not including any photos). *All correspondence to MDOT will include the MDOT project number in the subject line and each project will be reported separately within its own individual email.* The interim reports should include detailed

information on rare plant species documented and *brief* descriptions of any natural communities encountered, priority invasive species encountered, and general habitat notes (e.g., dominant species by stratum). Spatial data should be mentioned, but shapefiles are not necessary, as spatial data are available to MDOT via the ArcGIS Online group.

4) Transcribe relevant rare species data into Michigan's Natural Heritage Database (October - December 2025).

MNFI will update the database with current data for rare species that are observed during surveys. These GIS files will then be shared with MDOT so these new locations of listed species can be added into the Protected Areas Program.

5) Write final reports (October – December 2025).

MNFI will prepare a brief final report summarizing survey results for each MDOT project. The reports will contain brief introductory and methodological information; detailed maps depicting the survey area and relevant findings of rare and invasive species; brief general habitat descriptions of the project corridor; brief management and mitigation recommendations; select photo documentation of rare species, invasive species, and characteristic habitats; and a detailed executive summary. The final report should be particularly concise when no rare species were found, or when MDOT specifically requests a condensed report, as is the case with two maintenance projects: Lake Bailey Protected Area and M-26/US-41 Culverts (see section MDOT Projects Summary below).

Deliverables Schedule

- GIS data for rare species and priority invasive species
 - Within one week of each survey for each project
- Brief interim reports
 - Within two weeks of each survey for each project
- Monthly 1-page tracking reports for all projects showing what has been completed and what remains for the year
 - Within one week of the end of each calendar month
- Final reports for each project
 - By December 31, 2025
- Updates to the Michigan Natural Heritage Database
 - By December 31, 2025

MDOT Projects Summary

9903E M-26/US-41 Culverts

Project Summary: Work is needed at eight culverts along M-26 and US-41. Surveys are required at the location of six of these culverts. A small area on either side of the road will be surveyed at each surveyed culvert. A high concentration of rare plant records occurs on the Keweenaw Peninsula.

Methodology: Meander surveys will be confined to a small area surrounding the areas to be impacted. The final report for this project will be quite brief: approximately two pages total with several photos, a map, and one to two paragraphs of text. Otherwise, methods will be consistent with those outlined above in section Work Plan and Approach.

9904E Lake Bailey Protected Area, M-26, Keweenaw County:

Project Summary: Power relocations are required within the Lake Bailey Protected Area. A landowner violation within MDOT right-of-way also occurred here. Surveys will occur on both sides of the road along this 2-mile stretch. A high concentration of rare plant occurrences has been documented within a 2-mile radius of the Protected Area including heart-leaved arnica, wild lilac, and pine-drops. Furthermore, this Protected Area has not been surveyed in decades.

Methodology: The final report for this project will be quite brief: approximately two pages total with several photos, a map, and one to two paragraphs of text. Otherwise, methods will be consistent with those outlined above in section Work Plan and Approach.

110678 – M-29, Macomb and St. Clair Counties

Project Summary: Work is needed along M-29 between County Line Rd. and Church Rd. in New Baltimore. The work involves milling and two course asphalt resurfacing including drainage improvements, cross culverts, driveways, and tree and shrub cutting. Within a 2-mile radius of the project area, relatively recent records of pumpkin ash and false hop-sedge are known. Surveys are needed along the approximately 2-mile project corridor. Surveys will focus upon water crossings and cross culverts, wooded/shrubby areas adjoining the highway, and other higher quality natural areas within the corridor. Wetland and Stream permits will be required from EGLE for the project.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

211155 – Queen Snake Surveys, US-23 Highway, Washtenaw County

Project Summary: A bridge along US-23 that crosses the Huron River in Ann Arbor in Washtenaw County is scheduled to be replaced (starting in 2027). A population of queen snakes (*Regina septemvittata*, State Special Concern) has been documented along the bank of the Huron River at the bridge replacement site, particularly along the south side of the river. Surveys will focus on identifying the locations of queen snake overwintering sites or hibernacula at the project site on both sides of the river to inform bridge construction/ replacement activities as well as best management practices and actions to minimize impacts to this species during the construction. Survey results also will be used to help inform plans for potentially constructing a new/artificial hibernaculum for queen snakes in this population at the project site.

Methodology: A brief final report summarizing survey results and findings will be provided at the end of the project. Recommendations for constructing a new/artificial hibernaculum at this site also will be provided. Surveys will consist of visual encounter surveys in early spring (late March – early/mid-April) and mid-late fall (late September-October/ early November) when queen snakes are expected to be emerging or entering their hibernacula. Survey data, queen snake observations, and hibernacula locations will be recorded using a Survey123 data form. Other amphibians and reptiles observed during the surveys also will be recorded. Observations of queen snakes and other rare species documented during the surveys will be entered into the Natural Heritage Database. Otherwise, methods will be consistent with those outlined above in section Work Plan and Approach.

217456 – I-75, Monroe County

Project summary: Base plans for the final phase of a multi-year project along I-75 in Monroe County will be needed at the end of this year, which will require surveys this field season. The project corridor is from LaPlaissance Rd. to a point south of N. Dixie Highway. Pavement reconstruction, bridge replacements, and drainage improvements are needed. This includes substantial work outside of existing shoulders/curbs, which will involve more than five acres of earth disturbance, less than one acre of vegetation clearing, EGLE permits, possible impacts to the River Raisin Heritage Trail, storm sewer installation, guardrail replacements, and traffic reconfiguration. Approximately 10 rare plant occurrences have been documented within a two-mile radius of the project corridor including Sullivant's milkweed, water willow, arrowhead, trailing wild bean, and American lotus. Both sides of the highway, the median, and the interchanges at Exits 13, 14, and 15 will be surveyed.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

221474 – US-41, Keweenaw County

Project Summary: A culvert needs to be replaced where US-41 crosses the West Branch of the Eagle River. The new culvert will be wider than the old. This work will require temporary river diversion, approach work, tree removal/clearing, and possible permanent right-of-way and partial width construction. In total, less than one acre will be disturbed. Numerous rare plant occurrences are known within a 2-mile radius of the project, including relatively recent records of pine-drops, pale Indian paintbrush, northern ragwort, and hyssop-leaved fleabane. Furthermore, an MDOT Protected Area is within a tenth of a mile. Surveys will occur throughout the right-of-way along an approximately 0.4-mile stretch encompassing the project area.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

221564 – M-86, St. Joseph County

Project Summary: From Shimmel Rd. to M-66, the following work is needed: shoulder widening to 8 ft with edge line corrugations. update to drainage for additional impervious surfaces, and <1 acre of tree removal. A wetland permit may be needed. Several rare plant occurrences have been documented within a 2-mile radius, including relatively recent records of purple milkweed and rattlesnake master. Both sides of the road will be surveyed throughout the 5-mile project corridor.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

221576 – I-94, Berrien County

Project Summary: At the I-94 Eastbound New Buffalo Weigh Station, the following work is needed: Pavement reconstruction within the static scale and bypass lanes including the replacements of the static scale, impacts to traffic loops, corrugated concrete divider, speaker pedestals and electrical hand holes. The weigh station occurs within an MDOT Protected Area, which falls within a broader highway stretch that supports a high concentration of rare plant occurrences including rose pink, starry campion, annual hedge hyssop, cranefly orchid, winged monkey-flower, and ginseng. The entire I-94 right-of-way will be surveyed from the Indiana line to Exit 4. This will include both sides of the highway, the median, the weigh station, New Buffalo Welcome Center, and the interchanges at Exits 1 and 4.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

221593 – US 12, St. Joseph County

Project Summary: This project corridor extends from Mottville to White Pigeon. Shoulder widening is needed from Mottville to US-131 and sidewalk construction from US-131 to the Grand Elk Railroad crossing. Less than one acre of tree removal is needed, as well as consents to grade and reestablishment of fore slope where needed. Many rare plant occurrences have been documented within a 2-mile radius including hairy wild petunia, prairie birdfoot violet, prairie coreopsis, prairie false indigo, and starry campion. Both sides of the road will be surveyed throughout the 5-mile project corridor.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

222018 – I-96, Ionia County

Project Summary: Capital preventative maintenance is needed at ten bridge structures on I-96 along a 2-mile stretch from Market Street to Grand River Avenue at the city of Portland. This work will include deck patching, healer sealer, silane, bridge barrier repairs, resealing bridge end joints, joint replacement, deck drains replacement, approach work, and maintaining traffic. Six rare plants occurrences have been documented within a 2-mile radius, including snow trillium, which will require early- to mid-April surveys. There are two MDOT Protected Areas near the project corridor. Surveys will include both sides of the highway, the median, the interchanges at Exits 76 and 77, and a small portion of Market St.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

222348 – M-51, Cass County

Project Summary: Along M-51 from Pokagon Highway to a point north of Crystal Springs Street, shoulder widening, sign installation, and center rumble strips are needed. Although this project corridor is just two miles long, approximately 20 rare plant occurrences have been documented within a two-mile radius including edible valerian, Jacob's ladder, prairie birdfoot violet, starry campion, white gentian, and rattlesnake-master. Surveys will occur along both sides of the road.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

Statement of Work - MDOT NEPA Assistance 2026

Principal Investigator: Connor Wojtowicz

Sponsor: Dave Schuen, Michigan Department of Transportation (MDOT)

Project beginning date: 10/1/2025

Project end date: 9/30/2026

Budget request: \$182,000

Statement of Need: Services are requested to assist MDOT with compliance with the National Environmental Policy Act (NEPA). Specifically, services are requested for the following sub-projects.

(1) Element stewardship abstracts: MNFI will write and publish nine new rare species abstracts: rusty-patched bumble bee, Indiana bat, creek chubsucker, northern madtom, russet-tipped clubtail, Hubricht's vertigo, Huron River leafhopper, goosefoot corn salad, and American chestnut. Additionally, MNFI will update and republish 17 rare species abstracts for federally listed species: Hungerford's crawling waterbeetle, piping plover, northern riffleshell, snuffbox, Mitchell's satyr, copper-bellied water snake, Poweshiek skipperling, round hickorynut, rayed bean, Karner blue, eastern massasauga, Hine's emerald dragonfly, Pitcher's thistle, dwarf lake iris, Michigan monkey flower, prairie white-fringed orchid, and Houghton's goldenrod. **Total request: \$87,064.36.**

(2) Mitigation research document: In order to mitigate the take of protected plant and animal species in MDOT right-of-ways, MNFI will provide a mitigation research document. Mitigation is defined as avoidance, minimization and compensatory mitigation (replacement of values). The document will cover plant and animal species which are frequently impacted by MDOT roadwork, and which have not been recently addressed through other work (e.g., MDOT's Programmatic Agreement with the US Fish and Wildlife Service). Best Management Practices will be recommended based on known effective methodologies. Where known methodologies are not available, educated recommendations will be made based on the biology of the species. Methodologies may include relocations, transplanting, propagation, seed collection, habitat restoration, invasive species treatment, and other techniques. Recommendations for monitoring and reporting will also be provided. **Total request: \$60,294.07**

- (3) Follow-up monitoring of transplanted trillium at Blue Creek Fen:** . In 2023, MNFI transplanted toadshade and prairie trillium from the Franz and Notten Drain near Niles to the Blue Creek Fen near Benton Harbor ahead of anticipated take due to culvert replacement. Per the DNR permit, final monitoring and reporting are required in 2026. MNFI will census transplanted trillium at the Blue Creek Fen and provide a final report to MDOT and MDNR for T/E species permit compliance. **Total request: \$2,904.57.**
- (4) Finalization of GIS Five-Year Plan:** Final round for the 5-year plan - Region deliverable that uses the scoring to apply environmental clearance steps and a timeline. **Total request: \$5,773.16**
- (5) Assistance with the development of environmental baseline chapter for Programmatic Agreement:** MDOT is collaborating with MNFI and the US Fish and Wildlife Service to write a Programmatic Agreement to streamline the process of NEPA Compliance regarding management and mitigation of federally listed rare plant and animal species. MNFI will assist with the writing of Chapter 4 – Environmental Baseline, which will include the following subjects: Michigan glacial history and geology, Michigan road network, aquatic habitats, terrestrial habitats, and transitional habitats. The environmental baseline generally includes “the past and present impacts of all federal, state, or private actions and other human activities in the action area.” The baseline will also describe the factors currently affecting our various study species prior to considering the Actions described in the biological assessment. **Total request: \$12,849.12**
- (6) Development of a statewide mussel database:** In order to provide information to MDOT and other partners, MNFI will continue to develop a database of all known native mussel occurrences from Michigan, including species that are not tracked in the Michigan Natural Heritage Database. Priority for record entry will be decided in consultation with MDOT based upon records that intersect a buffer around the MDOT trunkline and around MDOT bridges. This will help MDOT to achieve faster and more complete environmental reviews. **Total request: \$13,114.72**

Timeline: MNFI will provide a brief written monthly progress report, and MDOT and MNFI will meet quarterly for a deeper discussion regarding progress on deliverables. All final deliverables will be submitted by September 30, 2026, unless otherwise indicated in the project-by-project list of deliverables below.

Deliverables:

- 1) **Element stewardship abstracts:** Nine new and 17 updated abstracts will be delivered by September 30, 2026. A specific schedule is provided below.

- a. 9 abstracts by 3/31/2026
 - b. 9 abstracts by 6/30/2026
 - c. 8 abstracts by 9/30/2026
- 2) **Mitigation research document:** One document to be delivered by September 30, 2026.
 - 3) **Follow-up monitoring of transplanted trillium at Blue Creek Fen:** Field work will be conducted in the first half of May, as gauged by observations of weather and spring wildflower phenology within Berrien County that spring. Work will be conducted significantly earlier, from a phenological perspective, than previous monitoring, which occurred on 05/20/24. The final report will be provided by 9/30/26
 - 4) **Finalization of GIS Five-Year Plan:** The final plan and any associated user guides to be finalized by September 30, 2026.
 - 5) **Assistance with the development of environmental baseline chapter for Programmatic Agreement:** A chapter of approximately 15 pages in length to be delivered by March 15, 2026 along with three formal meetings (two with MDOT and one with USFWS)
 - 6) **Development of a statewide mussel database:** MNFI will enter data for agreed-upon mussel records by September 30, 2026. A brief report will also be provided by this date sharing the number of records entered that intersect a buffer around the MDOT trunkline or around MDOT bridges

Budget:

Project	Amount
Element stewardship abstracts	\$87,064.36
Mitigation research document	\$60,294.07
Follow-up monitoring of transplanted trillium at Blue Creek Fen:	\$2,904.57
Finalization of GIS five-year plan	\$5,773.16
Assistance with the development of environmental baseline chapter for Programmatic Agreement:	\$12,849.12
Mussel database	\$13,114.72
Total:	\$182,000.00



STATE OF MICHIGAN PROCUREMENT
 Department Technology, Management and Budget
 Central Procurement Services
 320 S Walnut Street Lansing, MI 48933
 P.O. Box 30026, Lansing, MI 48909

CONTRACT CHANGE NOTICE

Change Notice Number **26**
 to
 Contract Number **MA18000000169**

CONTRACTOR	Board of Trustees of Michigan State University
	426 Auditorium Rd Office of Sponsored Programs
	East Lansing MI 48824
	Stacy Salisbury
	517-884-4252
	osp.awards@campusad.msu.edu
	CV0048200

STATE	Program Manager	Various	Various
STATE	Contract Administrator	Marissa Gove	DTMB
		(517) 449-8952	
		govem1@michigan.gov	

CONTRACT SUMMARY

Natural Heritage Conservation Planning Services			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2025
PAYMENT TERMS		DELIVERY TIMEFRAME	
NET 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> Direct Voucher (PRC) <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
MINIMUM DELIVERY REQUIREMENTS			
N/A			

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input checked="" type="checkbox"/>	1 Year	<input type="checkbox"/>		December 18, 2026
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$17,068,603.32	\$1,500,000.00	\$18,568,603.32		

DESCRIPTION

Effective October 7, 2025, the following changes are hereby incorporated into this Contract:

1. This Contract is increased by \$1,500,000.
2. The 4th option year available is exercised
3. The pricing is updated to reflect the new annual hourly rates for fiscal year 2026, please refer to attached updated Schedule B.

All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement, DTMB Central Procurement approval, and State Administrative Board approval on October 7, 2025.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov

Schedule B - Pricing

MSU salary and fringe hourly rates for 10/1/2025 through 9/30/2026

Employee	Status	Burdened S&F Hourly Rate (\$)	S&F Rate Plus 26% Indirect (\$)
Anderson, Manuel	Staff (Entry)	46.31	58.36
Badra, Peter	Senior Conservation Scientist (Advanced)	63.70	80.26
Bassett, Tyler	Conservation Scientist (Intermediate)	58.04	73.12
Branch, Eric	Staff (Entry)	45.42	57.23
Brolick, Katelyn	Staff (Entry)	49.67	62.58
Busch, Michelle	Conservation Associate (Entry)	53.77	67.75
Carter, Sarah	Staff (Entry)	44.21	55.71
Cohen, Joshua	Senior Conservation Scientist (Advanced)	72.75	91.66
Cole-Wick, Ashley	Conservation Scientist (Intermediate)	56.62	71.35
Cuthrell, David	Senior Conservation Scientist (Advanced)	70.83	89.24
Earl, Daniel	Staff (Entry)	46.70	58.84
Ellison, Alexander	Staff (Entry)	43.98	55.42
Enander, Helen	Staff (Advanced)	61.98	78.10
Hackett, Rachel	Conservation Scientist (Intermediate)	57.88	72.93
Korroch, Kraig	Staff (Intermediate)	58.11	73.22
Kortenhoven, Aaron	Conservation Scientist (Intermediate)	55.39	69.79
Lee, Yu Man	Senior Conservation Scientist (Advanced)	72.52	91.37
Lincoln, Jesse	Conservation Scientist (Intermediate)	58.35	73.52
Monfils, Michael	Senior Conservation Scientist (Advanced)	100.08	126.10
Ng, Amber	Staff (Entry)	47.76	60.18
Parr, Mary	Conservation Associate (Entry)	50.51	63.64
Richardson, Debra	Professional Aide	53.26	67.11
Rogers, Rebecca	Staff (Advanced)	68.20	85.93
Ross, Courtney	Staff (Entry)	47.21	59.48
Rowe, Logan	Conservation Scientist (Intermediate)	56.69	71.43
Sanders, Mike	Staff (Intermediate)	53.69	67.65
Sexton, Nicolette	Staff (Entry)	43.96	55.39
Smith, Danielle	Staff (Entry)	46.44	58.51
Smith, Nicole	Staff (Intermediate)	57.48	72.42
Stone, Abraham	Staff (Entry)	43.69	55.06
Warner, Scott	Conservation Associate (Entry)	55.73	70.22
Wilton, Clay	Conservation Scientist (Intermediate)	57.53	72.49
Wojtowicz, Connor	Conservation Associate (Entry)	50.84	64.05

**MSU salary and fringe hourly rates for 10/1/2025 through 9/30/2026,
continued**

Employee	Status	Burdened S&F Hourly Rate (\$)	S&F Rate Plus 26% Indirect (\$)
In those cases where specific MSU staff or seasonal employees have not been identified at the time of project scoping, the following rates will be used (based on averages of existing staff).			
	Conservation Associate (Entry)	55.72	70.21
	Conservation Scientist (Intermediate)	60.22	75.88
	Senior Conservation Scientist (Advanced)	78.98	99.52
	Staff (Entry)	48.95	61.67
	Staff (Intermediate)	59.43	74.88
	Staff (Advanced)	68.10	85.80
	Professional Aide	56.26	70.89
	Seasonal Botanist	28.83	36.32
	Seasonal Ecologist	28.83	36.32
	Seasonal Zoologist	28.83	36.32

The hourly rates are being provided for informational and comparison purposes only. MSU does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students, but rather maintains documentation to support time expended on federally sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB 2 CFR Part 200- Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.



STATE OF MICHIGAN ENTERPRISE PROCUREMENT

Department of Technology, Management, and Budget
320 S. Walnut Street 2nd Floor Lansing, MI 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **25**
to
Contract Number **MA18000000169**

CONTRACTOR	Board of Trustees of Michigan State University
	426 Auditorium Rd Office of Sponsored Programs
	East Lansing MI 48824
	Stacy Salisbury
	517-884-4252
	osp.awards@campusad.msu.edu
	CV0048200

STATE	Program Manager	Various	Various
STATE	Contract Administrator	Marissa Gove	DTMB
		(517) 449-8952	
		govem1@michigan.gov	

CONTRACT SUMMARY				
Natural Heritage Conservation Planning Services				
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE	
December 19, 2017	December 18, 2022	5 - 12 Months	December 18, 2025	
PAYMENT TERMS		DELIVERY TIMEFRAME		
NET 45		N/A		
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
<input type="checkbox"/> P-Card <input type="checkbox"/> Direct Voucher (PRC) <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
MINIMUM DELIVERY REQUIREMENTS				
N/A				
DESCRIPTION OF CHANGE NOTICE				
OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$17,068,603.32	\$0.00	\$17,068,603.32		

DESCRIPTION

Effective June 23, 2025, this Contract is amended to reflect updated accessibility requirements. All prior references to ADA, Accessibility, and/or WCAG 2.0 are replaced and superseded with the following language:

Accessibility Requirements.

The State is required to comply with the Americans with Disabilities Act of 1990 (ADA) and has adopted standards and procedures regarding accessibility requirements for websites, applications, content, and electronic documents. Due to a change in the law, the State is required to comply with specific accessibility standards for websites, applications, content and documents.

Starting 4/24/2026, throughout the Term, all websites, applications, software, content, and electronic documents, including but not limited to mobile applications, text, images, sounds, videos, controls, animations, links, and documents (including files in the following formats: PDF, word processing, presentation, and spreadsheet), created, provided, or made available by the Contractor under this Contract, must comply with WCAG 2.1 Level AA.

All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov



STATE OF MICHIGAN ENTERPRISE PROCUREMENT

Department of Technology, Management, and Budget
320 S. Walnut Street 2nd Floor Lansing, MI 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **24**

to

Contract Number **MA18000000169**

CONTRACTOR	Board of Trustees of Michigan State University
	426 Auditorium Rd Office of Sponsored Programs
	East Lansing MI 48824
	Stacy Salisbury
	517-884-4252
	osp.awards@campusad.msu.edu
	CV0048200

STATE	Program Manager	Various	Various
STATE	Contract Administrator	Marissa Gove	DTMB
		517-449-8952	
		govem1@michigan.gov	

CONTRACT SUMMARY				
Natural Heritage Conservation Planning Services				
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE	
December 19, 2017	December 18, 2022	5 - 12 Months	December 18, 2025	
PAYMENT TERMS		DELIVERY TIMEFRAME		
NET 45		N/A		
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
<input type="checkbox"/> P-Card <input type="checkbox"/> Direct Voucher (PRC) <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
MINIMUM DELIVERY REQUIREMENTS				
N/A				
DESCRIPTION OF CHANGE NOTICE				
OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$16,976,152.08	\$92,451.24	\$17,068,603.32		
DESCRIPTION				
Effective May 5, 2025, the attached Work Plan for MDOT is hereby added and the Contract is increased by \$92,451.24. All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.				

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

Project Summary

Title: MDOT Rare Species Surveys 2025

MDOT Job Numbers: 9903E, 9904E, 110678, 211155, 217456, 221474, 221564, 221576, 221593, 222018, 222348

Principal Investigator: Scott Warner, Michigan Natural Features Inventory (MNFI)

Sponsor: Dave Schuen, Michigan Department of Transportation (MDOT)

Statement of Need: Services are requested to complete rare species surveys to assist MDOT with NEPA compliance and recommend mitigation and management actions for the MDOT projects listed below in section MDOT Projects Summary.

Expected Benefits: This work fulfills regulatory compliance for the State and Federal Endangered Species Acts with Michigan Department of Natural Resources (MDNR) and U.S. Fish and Wildlife Service required to obtain federal funding from Federal Highways Administration for the MDOT projects noted below in section MDOT Projects Summary. Our goal is to assist MDOT in the delivery of the Rebuilding Michigan Program set forth by the Governor. This work will provide baseline data for MDNR permitting and Section 7 consultation, if required, and strengthen the relationship between MNFI and MDOT. MNFI has many years of experience working with Michigan’s most vulnerable species. MDOT has many years of experience identifying and mitigating impacts anticipated from road construction and maintenance projects. This work will also enhance Michigan’s Natural Heritage Database by documenting rare species occurrences detected during surveys.

Timeline: April 1 – December 31, 2025. More information is provided in the sections below.

Location: The MDOT projects are located in Berrien, Cass, Ionia, Keweenaw, Macomb, Monroe, St. Clair, St. Joseph, and Washtenaw Counties. Preparation and reporting will also be conducted in Lansing.

Budget Request

This project will occur over two fiscal years and will cover multiple MDOT projects. Below, the total budget is separated by fiscal year and expense category (Table 1) and by MDOT job numbers (Table 2).

Table 1. Budget separated by fiscal year and expense category.

Expense Category	Fiscal Year 1	Year 2	Years 1 and 2
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Personnel	\$42,130.61	\$16,526.72	\$58,657.35
Travel	\$11,997.60	\$0	\$11,997.60
Supplies	\$2,719.00	\$0	\$2,719.00
Indirect Cost (Rate: 26%)	\$14,780.34	\$4,296.97	\$19,077.29
Budget Total:	\$71,627.55	\$20,823.69	\$92,451.24

Table 1. Budget separated by MDOT job number

MDOT Project	Cost
9903E - M-26/US-41 Culverts, Keweenaw County	\$10,133.85
9904E - Lake Bailey PA, M-26, Keweenaw County	\$6,715.14
110678 – M-29, Macomb and St. Clair Counties	\$8,195.13
211155 - Queen Snake Surveys, Huron River, Washtenaw County	\$9,618.38
217456 – I-75, Monroe County	\$7,482.15
221474 – US-41, Keweenaw County	\$6,923.34
221564 – M-86, St. Joseph County	\$9,476.22
221576 – I-94, Berrien County	\$9,808.95
221593 – US 12, St. Joseph County	\$9,619.03
222018 – I-96, Ionia County	\$6,578.10
222348 – M-51, Cass County	\$7,900.95
Total	\$92,451.24

Objectives, Work Plan, and Approach

Objectives

The objectives are to document rare species, document priority invasive species, recommend mitigation and management actions within areas to be impacted by upcoming MDOT projects. Hereafter, 'rare species' refers to Federal Threatened/Endangered and State Threatened/Endangered/Special Concern/Extirpated species.

Work Plan and Approach

Below, a general methodology is outlined. In section MDOT Projects Summary, any deviations from the general methodology will be provided by project where relevant.

1) Prepare for field work (April – May 2025). In collaboration with MDOT, MNFI will delineate survey areas and pull data from MDOT and MNFI on all known occurrences of rare plant species and natural communities within a 2-mile buffer. GIS layers for maps will include the extent of the survey area, bridge/culvert locations, Protected Area boundaries, aerial imagery, hydrology, and known occurrences of rare species and natural communities. MNFI will plan survey routes based upon hydrology, occurrences of rare plant species and natural communities, anticipated project impacts, habitat and phenology of target species, and interpretation of historic and contemporary aerial imagery. MNFI will create field work preparation packets for surveyors including maps and information on target species. MNFI will load maps onto mobile phones, tablets, or GPS devices. The specific time period of preparation will depend upon the MDOT project and the phenology of target species.

2) Conduct early-, mid-, and late-season surveys (April – November 2025).

General Methodology

MDOT project corridors will generally be along interstates, U.S. highways, and state highways. Along interstates and divided U.S. highways, the entire right-of-way will be surveyed from road shoulder to fence on both sides of the highway. Additionally, medians will be surveyed if aerial image interpretation and on-site drive-bys suggest the possibility of suitable habitat. Furthermore, interchanges, weigh stations, and rest areas will be surveyed. Along state highways and undivided U.S. highways, the entire right-of-way will be surveyed on both sides of the road (typically, 33 feet from centerline on either side).

Whether on interstates, U.S. highways, or state highways, meander surveys will be employed. Safety hardhats, reflective vests, and steel-toed boots will be worn. Data on rare and priority invasive species will be taken via Survey123 field app on a tablet or mobile

phone. Additional data on roadside habitats and species will be taken with a field notebook.

Mapping of Rare Species and Priority Invasives

All rare plant species encountered will be documented, whether they were predetermined target species or not. Any rare animal species incidentally encountered will also be documented, although they will not be target species, except where noted in section MDOT Projects Summary below. Rare species occurrences will be mapped as points or polygons depending upon the size of the population. Mapping will be conducted within the Survey123 field app using a mobile phone or tablet. Ideally, locational accuracy of phones and tablets will be routed to a Leica GG04, Leica FLX-100, or Eos Arrow GPS unit for sub-meter accuracy, however, standalone mobile phones or tablets will be acceptable in the event of procurement issues or technical difficulties. When Leica or Eos units are unavailable, extra care will be put toward describing GPS locations relative to conspicuous landmarks (e.g., distance and bearing from prominent trees). Spatial and associated tabular data will be automatically uploaded on a weekly basis to a shared ArcGIS Online group to which MDOT and MNFI staff have access.

Data Collection for Rare Species and Priority Invasives

A Survey123 field form will be developed between MNFI and MDOT for this project, which will allow surveyors to collect data according to Natural Heritage methodology standards while balancing MDOT's need for efficiency. The form will include the following fields: species name, abundance, vigor, habitat, associated species, and threats. The form will indicate whether each field is required and provide basic guidelines for each field.

A Survey123 field form will also be developed for priority occurrences of invasive species according to Midwest Invasive Species Information Network (MISIN) data collection standards. Invasive species are considered priorities if they present an occupational or safety hazard within MDOT rights-of-way (e.g., tall stands of phragmites which obscure vision along the road). Where feasible, MDOT is also interested in treating invasive species for ecological reasons. MNFI will focus upon documenting occurrences which are occupational or safety hazards and/or which are uncommon in the wider landscape, treatable, and likely to spread with anticipated roadwork.

3) Provide preliminary reporting via interim reports (April – November 2025). Within two weeks of each survey for each MDOT project, MNFI will deliver a brief interim report via email to MDOT (1 to 2 pages, not including any photos). *All correspondence to MDOT will include the MDOT project number in the subject line and each project will be reported separately within its own individual email.* The interim reports should include detailed

information on rare plant species documented and *brief* descriptions of any natural communities encountered, priority invasive species encountered, and general habitat notes (e.g., dominant species by stratum). Spatial data should be mentioned, but shapefiles are not necessary, as spatial data are available to MDOT via the ArcGIS Online group.

4) Transcribe relevant rare species data into Michigan's Natural Heritage Database (October - December 2025).

MNFI will update the database with current data for rare species that are observed during surveys. These GIS files will then be shared with MDOT so these new locations of listed species can be added into the Protected Areas Program.

5) Write final reports (October – December 2025).

MNFI will prepare a brief final report summarizing survey results for each MDOT project. The reports will contain brief introductory and methodological information; detailed maps depicting the survey area and relevant findings of rare and invasive species; brief general habitat descriptions of the project corridor; brief management and mitigation recommendations; select photo documentation of rare species, invasive species, and characteristic habitats; and a detailed executive summary. The final report should be particularly concise when no rare species were found, or when MDOT specifically requests a condensed report, as is the case with two maintenance projects: Lake Bailey Protected Area and M-26/US-41 Culverts (see section MDOT Projects Summary below).

Deliverables Schedule

- GIS data for rare species and priority invasive species
 - Within one week of each survey for each project
- Brief interim reports
 - Within two weeks of each survey for each project
- Monthly 1-page tracking reports for all projects showing what has been completed and what remains for the year
 - Within one week of the end of each calendar month
- Final reports for each project
 - By December 31, 2025
- Updates to the Michigan Natural Heritage Database
 - By December 31, 2025

MDOT Projects Summary

9903E M-26/US-41 Culverts

Project Summary: Work is needed at eight culverts along M-26 and US-41. Surveys are required at the location of six of these culverts. A small area on either side of the road will be surveyed at each surveyed culvert. A high concentration of rare plant records occurs on the Keweenaw Peninsula.

Methodology: Meander surveys will be confined to a small area surrounding the areas to be impacted. The final report for this project will be quite brief: approximately two pages total with several photos, a map, and one to two paragraphs of text. Otherwise, methods will be consistent with those outlined above in section Work Plan and Approach.

9904E Lake Bailey Protected Area, M-26, Keweenaw County:

Project Summary: Power relocations are required within the Lake Bailey Protected Area. A landowner violation within MDOT right-of-way also occurred here. Surveys will occur on both sides of the road along this 2-mile stretch. A high concentration of rare plant occurrences has been documented within a 2-mile radius of the Protected Area including heart-leaved arnica, wild lilac, and pine-drops. Furthermore, this Protected Area has not been surveyed in decades.

Methodology: The final report for this project will be quite brief: approximately two pages total with several photos, a map, and one to two paragraphs of text. Otherwise, methods will be consistent with those outlined above in section Work Plan and Approach.

110678 – M-29, Macomb and St. Clair Counties

Project Summary: Work is needed along M-29 between County Line Rd. and Church Rd. in New Baltimore. The work involves milling and two course asphalt resurfacing including drainage improvements, cross culverts, driveways, and tree and shrub cutting. Within a 2-mile radius of the project area, relatively recent records of pumpkin ash and false hop-sedge are known. Surveys are needed along the approximately 2-mile project corridor. Surveys will focus upon water crossings and cross culverts, wooded/shrubby areas adjoining the highway, and other higher quality natural areas within the corridor. Wetland and Stream permits will be required from EGLE for the project.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

211155 – Queen Snake Surveys, US-23 Highway, Washtenaw County

Project Summary: A bridge along US-23 that crosses the Huron River in Ann Arbor in Washtenaw County is scheduled to be replaced (starting in 2027). A population of queen snakes (*Regina septemvittata*, State Special Concern) has been documented along the bank of the Huron River at the bridge replacement site, particularly along the south side of the river. Surveys will focus on identifying the locations of queen snake overwintering sites or hibernacula at the project site on both sides of the river to inform bridge construction/ replacement activities as well as best management practices and actions to minimize impacts to this species during the construction. Survey results also will be used to help inform plans for potentially constructing a new/artificial hibernaculum for queen snakes in this population at the project site.

Methodology: A brief final report summarizing survey results and findings will be provided at the end of the project. Recommendations for constructing a new/artificial hibernaculum at this site also will be provided. Surveys will consist of visual encounter surveys in early spring (late March – early/mid-April) and mid-late fall (late September-October/ early November) when queen snakes are expected to be emerging or entering their hibernacula. Survey data, queen snake observations, and hibernacula locations will be recorded using a Survey123 data form. Other amphibians and reptiles observed during the surveys also will be recorded. Observations of queen snakes and other rare species documented during the surveys will be entered into the Natural Heritage Database. Otherwise, methods will be consistent with those outlined above in section Work Plan and Approach.

217456 – I-75, Monroe County

Project summary: Base plans for the final phase of a multi-year project along I-75 in Monroe County will be needed at the end of this year, which will require surveys this field season. The project corridor is from LaPlaissance Rd. to a point south of N. Dixie Highway. Pavement reconstruction, bridge replacements, and drainage improvements are needed. This includes substantial work outside of existing shoulders/curbs, which will involve more than five acres of earth disturbance, less than one acre of vegetation clearing, EGLE permits, possible impacts to the River Raisin Heritage Trail, storm sewer installation, guardrail replacements, and traffic reconfiguration. Approximately 10 rare plant occurrences have been documented within a two-mile radius of the project corridor including Sullivant's milkweed, water willow, arrowhead, trailing wild bean, and American lotus. Both sides of the highway, the median, and the interchanges at Exits 13, 14, and 15 will be surveyed.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

221474 – US-41, Keweenaw County

Project Summary: A culvert needs to be replaced where US-41 crosses the West Branch of the Eagle River. The new culvert will be wider than the old. This work will require temporary river diversion, approach work, tree removal/clearing, and possible permanent right-of-way and partial width construction. In total, less than one acre will be disturbed. Numerous rare plant occurrences are known within a 2-mile radius of the project, including relatively recent records of pine-drops, pale Indian paintbrush, northern ragwort, and hyssop-leaved fleabane. Furthermore, an MDOT Protected Area is within a tenth of a mile. Surveys will occur throughout the right-of-way along an approximately 0.4-mile stretch encompassing the project area.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

221564 – M-86, St. Joseph County

Project Summary: From Shimmel Rd. to M-66, the following work is needed: shoulder widening to 8 ft with edge line corrugations. update to drainage for additional impervious surfaces, and <1 acre of tree removal. A wetland permit may be needed. Several rare plant occurrences have been documented within a 2-mile radius, including relatively recent records of purple milkweed and rattlesnake master. Both sides of the road will be surveyed throughout the 5-mile project corridor.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

221576 – I-94, Berrien County

Project Summary: At the I-94 Eastbound New Buffalo Weigh Station, the following work is needed: Pavement reconstruction within the static scale and bypass lanes including the replacements of the static scale, impacts to traffic loops, corrugated concrete divider, speaker pedestals and electrical hand holes. The weigh station occurs within an MDOT Protected Area, which falls within a broader highway stretch that supports a high concentration of rare plant occurrences including rose pink, starry campion, annual hedge hyssop, cranefly orchid, winged monkey-flower, and ginseng. The entire I-94 right-of-way will be surveyed from the Indiana line to Exit 4. This will include both sides of the highway, the median, the weigh station, New Buffalo Welcome Center, and the interchanges at Exits 1 and 4.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

221593 – US 12, St. Joseph County

Project Summary: This project corridor extends from Mottville to White Pigeon. Shoulder widening is needed from Mottville to US-131 and sidewalk construction from US-131 to the Grand Elk Railroad crossing. Less than one acre of tree removal is needed, as well as consents to grade and reestablishment of fore slope where needed. Many rare plant occurrences have been documented within a 2-mile radius including hairy wild petunia, prairie birdfoot violet, prairie coreopsis, prairie false indigo, and starry campion. Both sides of the road will be surveyed throughout the 5-mile project corridor.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

222018 – I-96, Ionia County

Project Summary: Capital preventative maintenance is needed at ten bridge structures on I-96 along a 2-mile stretch from Market Street to Grand River Avenue at the city of Portland. This work will include deck patching, healer sealer, silane, bridge barrier repairs, resealing bridge end joints, joint replacement, deck drains replacement, approach work, and maintaining traffic. Six rare plants occurrences have been documented within a 2-mile radius, including snow trillium, which will require early- to mid-April surveys. There are two MDOT Protected Areas near the project corridor. Surveys will include both sides of the highway, the median, the interchanges at Exits 76 and 77, and a small portion of Market St.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.

222348 – M-51, Cass County

Project Summary: Along M-51 from Pokagon Highway to a point north of Crystal Springs Street, shoulder widening, sign installation, and center rumble strips are needed. Although this project corridor is just two miles long, approximately 20 rare plant occurrences have been documented within a two-mile radius including edible valerian, Jacob's ladder, prairie birdfoot violet, starry campion, white gentian, and rattlesnake-master. Surveys will occur along both sides of the road.

Methodology: Methods will be consistent with those outlined above in section Work Plan and Approach.



STATE OF MICHIGAN ENTERPRISE PROCUREMENT

Department of Technology, Management, and Budget
320 S. Walnut Street 2nd Floor Lansing, MI 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **23**

to

Contract Number **MA18000000169**

CONTRACTOR	Board of Trustees of Michigan State University
	426 Auditorium Rd Office of Sponsored Programs
	East Lansing MI 48824
	Stacy Salisbury
	517-884-4252
	osp.awards@campusad.msu.edu
	CV0048200

STATE	Program Manager	Various	Various
STATE	Contract Administrator	Marissa Gove	DTMB
		(517) 449-8952	
		govem1@michigan.gov	

CONTRACT SUMMARY

Natural Heritage Conservation Planning Services

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 12 Months	December 18, 2025
PAYMENT TERMS		DELIVERY TIMEFRAME	
NET 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> Direct Voucher (PRC) <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$16,028,358.20	\$947,793.88	\$16,976,152.08		

DESCRIPTION

Effective April 22, 2025, this Contract is hereby increased by \$947,793.88 for use by DNR. All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement, DTMB Central Procurement approval, and State Administrative Board approval on April 22, 2025.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov



STATE OF MICHIGAN ENTERPRISE PROCUREMENT

Department of Technology, Management, and Budget
320 S. Walnut Street 2nd Floor Lansing, MI 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **22**

to

Contract Number **MA18000000169**

CONTRACTOR	Board of Trustees of Michigan State University
	426 Auditorium Rd Office of Sponsored Programs
	East Lansing MI 48824
	Stacy Salisbury
	517-884-4252
	osp.awards@campusad.msu.edu
	CV0048200

STATE	Program Manager	Various	Various
STATE	Contract Administrator	Marissa Gove	DTMB
		517-449-8952	
		govem1@michigan.gov	

CONTRACT SUMMARY

Natural Heritage Conservation Planning Services

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 12 Months	December 18, 2025
PAYMENT TERMS		DELIVERY TIMEFRAME	
NET 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> Direct Voucher (PRC) <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$16,025,562.39	\$2,795.81	\$16,028,358.20		

DESCRIPTION

Effective March 25, 2025, this Contract is hereby increased by \$2,795.81 for use by MDOT. All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov



**STATE OF MICHIGAN
ENTERPRISE PROCUREMENT**

Department of Technology, Management, and Budget
320 S. Walnut Street 2nd Floor Lansing, MI 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **21**
to
Contract Number **MA18000000169**

CONTRACTOR	Board of Trustees of Michigan State University
	426 Auditorium Rd Office of Sponsored Programs
	East Lansing MI 48824
	Stacy Salisbury
	517-884-4252
	osp.awards@campusad.msu.edu
	CV0048200

STATE	Program Manager	Various	Various
STATE	Contract Administrator	Marissa Gove	DTMB
		517-449-8952	
		govem1@michigan.gov	

CONTRACT SUMMARY				
Natural Heritage Conservation Planning Services				
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE	
December 19, 2017	December 18, 2022	5 - 12 Months	December 18, 2025	
PAYMENT TERMS		DELIVERY TIMEFRAME		
NET 45		N/A		
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
<input type="checkbox"/> P-Card <input type="checkbox"/> Direct Voucher (PRC) <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
MINIMUM DELIVERY REQUIREMENTS				
N/A				
DESCRIPTION OF CHANGE NOTICE				
OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$15,780,744.20	\$244,818.19	\$16,025,562.39		

DESCRIPTION

Effective January 30, 2025, the following changes are hereby added to the Contract:

1. \$244,818.19 is added to the Contract for MDOT.
2. The pricing is updated to reflect the new annual hourly rates for fiscal year 2025, please refer to attached updated Schedule B.
3. Funds added on CN 20 were approved at the 10/8/24 Ad Board.

All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

Schedule B – Pricing

MSU salary and fringe hourly rates for 10/1/2024 through 9/30/2025

Employee	Status	Burdened S&F Hourly Rate (\$)	S&F Rate Plus 26% Indirect (\$)
Adkins, Ashley	Staff (Intermediate)	51.78	65.24
Anderson, Manuel	Staff (Entry)	42.54	53.61
Badra, Pete	Senior Conservation Scientist (Advanced)	60.62	76.38
Bassett, Tyler	Conservation Associate (Entry)	55.61	70.07
Branch, Eric	Staff (Entry)	42.85	53.99
Carter, Sarah	Staff (Entry)	42.66	53.76
Cohen, Josh	Senior Conservation Scientist (Advanced)	69.24	87.25
Cole-Wick, Ashley	Conservation Associate (Entry)	54.25	68.36
Cuthrell, Dave	Senior Conservation Scientist (Advanced)	67.92	85.58
Earl, Daniel	Staff (Entry)	44.07	55.52
Elgin, Erick	Extension Educator	59.08	74.44
Enander, Helen	Staff (Advanced)	59.97	75.57
Hackett, Rachel	Conservation Associate (Entry)	55.42	69.83
Korroch, Kraig	Staff (Intermediate)	56.19	70.81
Kortenhoven, Aaron	Conservation Scientist (Intermediate)	52.45	66.09
Lee, Yu Man	Senior Conservation Scientist (Advanced)	69.61	87.71
Lincoln, Jesse	Conservation Scientist (Intermediate)	54.66	68.88
Monfils, Mike	Senior Conservation Scientist (Advanced)	95.42	120.23
Ng, Amber	Staff (Entry)	45.07	56.78
Richardson, Deb	Professional Aide	52.28	65.87
Rogers, Becca	Staff (Advanced)	66.04	83.21
Ross, Courtney	Staff (Entry)	44.54	56.12
Rowe, Logan	Conservation Associate (Entry)	54.32	68.44
Sanders, Mike	Staff (Intermediate)	51.89	65.38
Schilke, Paul	Conservation Associate (Entry)	52.25	65.84
Smith, Danielle	Staff (Entry)	43.82	55.21
Smith, Nicole	Staff (Intermediate)	55.57	70.02
Warner, Scott	Conservation Associate (Entry)	53.35	67.22
Wilton, Clay	Conservation Associate (Entry)	54.30	68.42
Wojtowicz, Connor	Conservation Associate (Entry)	49.77	62.71

**MSU salary and fringe hourly rates for 10/1/2024 through 9/30/2025,
continued**

Employee	Status	Burdened S&F Hourly Rate (\$)	S&F Rate Plus 26% Indirect (\$)
In those cases where specific MSU staff or seasonal employees have not been identified at the time of project scoping, the following rates will be used (based on averages of existing staff).			
	Conservation Associate (Entry)	56.67	71.40
	Conservation Scientist (Intermediate)	56.56	71.27
	Senior Conservation Scientist (Advanced)	75.57	95.22
	Staff (Entry)	46.66	58.79
	Staff (Intermediate)	56.87	71.65
	Staff (Advanced)	66.01	83.17
	Professional Aide	55.29	69.66
	Extension Educator	62.09	78.23
	Seasonal Botanist	28.83	36.32
	Seasonal Ecologist	28.83	36.32
	Seasonal Zoologist	28.83	36.32

The hourly rates are being provided for informational and comparison purposes only. MSU does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students, but rather maintains documentation to support time expended on federally sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB 2 CFR Part 200- Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.



STATE OF MICHIGAN ENTERPRISE PROCUREMENT

Department of Technology, Management, and Budget
320 S. Walnut Street 2nd Floor Lansing, MI 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number 20
to
Contract Number MA18000000169

CONTRACTOR	Board of Trustees of Michigan State University
	426 Auditorium Rd Office of Sponsored Programs
	East Lansing MI 48824
	Stacy Salisbury
	517-884-4252
	osp.awards@campusad.msu.edu
	CV0048200

STATE	Program Manager	Various	Various
STATE	Contract Administrator	Adam Ashley	DTMB
		(517)855-1376	
		ashleya2@michigan.gov	

CONTRACT SUMMARY				
Natural Heritage Conservation Planning Services				
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE	
December 19, 2017	December 18, 2022	5 - 12 Months	December 18, 2024	
PAYMENT TERMS		DELIVERY TIMEFRAME		
NET 45		N/A		
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
<input type="checkbox"/> P-Card <input type="checkbox"/> Direct Voucher (PRC) <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
MINIMUM DELIVERY REQUIREMENTS				
N/A				
DESCRIPTION OF CHANGE NOTICE				
OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input checked="" type="checkbox"/>	12 Months	<input type="checkbox"/>		December 18, 2025
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$14,280,744.20	\$1,500,000.00	\$15,780,744.20		
DESCRIPTION				
Effective October 8th, 2024, \$1,500,000.00 is hereby added to the contract for DNR. In addition, 1 option year available on this contract is hereby exercised. The revised contract expiration date is 12/18/2025.				
All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement and DTMB Central Procurement approval.				

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov



STATE OF MICHIGAN ENTERPRISE PROCUREMENT

Department of Technology, Management, and Budget

525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **19**
to

Contract Number **MA18000000169**

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs 426 Auditorium Rd
	East Lansing MI 48824
	Stacy Salisbury
	517-884-4252
	osp.awards@campusad.msu.edu
	CV0048200

STATE	Program Manager	Various	Various
STATE	Contract Administrator	Adam Ashley	DTMB
		(517)855-1376	
		ashleya2@michigan.gov	

CONTRACT SUMMARY

Natural Heritage Conservation Planning Services

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 12 Months	December 18, 2024
PAYMENT TERMS		DELIVERY TIMEFRAME	
NET 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> Direct Voucher (PRC) <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
MINIMUM DELIVERY REQUIREMENTS			
N/A			

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$14,218,206.84	\$62,537.36	\$14,280,744.20		

DESCRIPTION

Effective July 12, 2024, the attached Work Plan for MDOT is hereby added and the Contract is increased by \$62,537.36.

All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

Title:	MDOT Rare Species Surveys 2024		
MDOT Projects 209387, 210082, 211804, 219292, 9902E			
Principal Investigator:	Scott Warner		
Sponsor:	Dave Schuen, Michigan Department of Transportation (MDOT)		
Project Beginning Date:	April 1, 2024	Project End Date:	Dec. 31, 2024
Budget Request for Current Year:	FY24 \$42,054.05 / FY25 \$20,483.31 / Total \$62,537.36		

Statement of Need: Services are requested to complete rare plant species surveys or other activities as noted for the projects listed below.

-
- 1. Project 209387 - I-69 Clear Zone Safety Tree Removal Project, Calhoun County:** The median and outside clear zones will have fixed objects (trees and shrubs) removed along approximately 12 miles of I-69 between M-60 and I-94. Although rare plant records near the project area are few, this may be due to a lack of survey effort, as there are significant tracts of remnant forest and wetlands in the central and northern portions of the project area, based on aerial photograph interpretation. MNFI will conduct rare plant surveys. Additionally, MNFI will GPS map all trees greater than 6", record their diameter at breast height (DBH), and identify them to species.
 - 2. Project 210082 – M-59 from Milford Road to Pontiac Lake Road, Oakland County:** This project includes milling and a one course asphalt overlay, road rehabilitation including bridge CPM work at four structures (CSX railroad over M-59, Clinton River and Pontiac Lake), signal upgrades, and sidewalk repairs. The project area is approximately nine miles long. Although this work is relatively light, the project area includes portions adjacent to the Haven Hill Natural Area at Highland State Recreation Area, which supports one of the finest large forest tracts remaining in southeastern Michigan and several rare plant records. Based on aerial photograph interpretation, other resources within the project area will also need to be surveyed, including stream crossings, lake shores, and tracts of mature forest remnants. MNFI will conduct rare plant surveys.
 - 3. Project 211804 – I-94 Crash Investigation Sites, Berrien, Van Buren, Kalamazoo, and Calhoun Counties:** Crash investigation sites are to be installed at six locations in Berrien, Van Buren, and Calhoun Counties (with one location extending slightly into Kalamazoo County). Five of these six locations need to be surveyed for rare species based on known rare plant records and potential suitable habitat within the area. These locations can be found just south of the Grand Mere Interchange in Berrien County, east of M-40 in Van Buren County, west of County Road 657 in Van Buren County, east of the Mattawan Exit in Van Buren and Kalamazoo Counties, and east of the Beadle Lake Interchange in Calhoun County. In total the five project areas span approximately nine miles. MNFI will conduct rare plant surveys.
 - 4. Project 219292 - Blood Run Creek Culvert Replacement, Berrien County:** Work will be done on M-239 between the Indiana/Michigan State Line and Wilson Rd. in Berrien County. This work includes the replacement of the Blood Run Creek Culvert, drainage improvements, and road reconstruction/approaches. Wetland and stream permits will be required from EGLE. Numerous rare plant records are known from a 2-mile radius. MNFI will conduct rare plant surveys.

5. 9902E - East Branch of Ontonagon River Scour/Riprap Placement, Ontonagon County: This is a new project, for which a project number is not yet available. At pier #2 (the north pier upstream) there is a 10 – 14’ scour hole in front of the pier that needs to be repaired. This will require the establishment of a haul road, which will require the cutting of trees/brush. An excavator will need to be operated. Numerous rare plant records are known from a 2-mile radius. MNFI will conduct rare plant surveys.

Expected Benefits:

This work fulfills regulatory compliance for the State and Federal Endangered Species Acts with the MDNR and USFWS in order to obtain federal funding from FHWA for the transportation projects noted above. Our goal is to assist MDOT in the delivery of the Rebuilding Michigan Program set forth by the Governor. This work will provide baseline data for MDNR permitting and Section 7 consultation if required and strengthen the relationship between the Michigan Natural Features Inventory (MNFI) and the Michigan Department of Transportation (MDOT). MNFI has many years of experience working with Michigan’s most vulnerable species and MDOT has many years of experience identifying and mitigating impacts anticipated from road construction activities to these vulnerable species. This work will also enhance Michigan’s Natural Heritage Database by capturing rare species occurrence data that are documented during surveys.

Objectives, Work Plan/Approach:

The specific objectives, work plan, timeline and location are described separately below for each project. The total budget for all of the projects combined is presented below.

Timeline:

All surveys will be conducted between May and November 2024. Shapefiles of rare species will be delivered to MDOT with a brief report via email after each survey period for each project. Specific timelines are provided separately for each project in the following pages. Final reports for each project will be delivered by September 27 or December 31, 2024, depending on the project.

Location

The projects are located in Berrien, Calhoun, Kalamazoo, Oakland, Ontonagon, and Van Buren Counties. Specific locations are detailed for each project separately in the following pages.

Deliverables:

- Shapefiles for rare species documented and a brief interim report will be delivered after each rare species survey in a project area, as detailed in the following pages. The number of seasonal surveys varies by project. Typically, 2 – 3 surveys are required depending on the recommended survey period of target species.
- GPS shapefiles of isolated occurrences of prioritized invasive species will be delivered by September 27 or December 31, 2024, depending on the project.
- Final reports for each project will be delivered by September 27 or December 31, 2024, depending on the project.

Budget: Costs are separated out for Fiscal Year 1, Fiscal Year 2, and overall project total.

Contract Type/Payments: This is a fixed price contract.

Costs are combined totals for all four projects for each category

Task or Direct Cost Category	Fiscal Year 1 (Apr 1 – Sep 30)	Fiscal Year 2 (Oct 1 – Dec 31)	Total
Personnel	\$25,516.49	\$16,256.61	\$41,773.10
Travel	\$6,431.92	---	\$6,431.92
Supplies	\$1,427.79	---	\$1,427.79
Indirect Cost (Rate: 26%)	\$8,677.85	\$4,226.70	\$12,904.55
Budget Total:	\$42,054.05	\$20,483.31	\$62,537.36

Project-specific budgets are also provided for the entire project period below

Project	Total Budget
209387	\$20,174.68
210082	\$10,556.66
211804	\$12,959.10
219292	\$9,619.75
9902E	\$9,227.17
Total	\$62,537.36

1. Project 209387 - I-69 Clear Zone Safety Tree Removal Project

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2024)

Review aerial photos, maps, and delineated stretches of highway right-of-way, interchanges, stream/river crossings, and any other areas requiring survey. Review tree/brush GIS data. Upload pertinent data layers to Samsung tablet and/or mobile phone.

2. GPS-map, measure DBH, and identify to species those trees targeted for removal. (May-September 2024)

MNFI will be provided GIS point and polygon files illustrating the clear zones and the limits of vegetation clearing and fixed object removals. MNFI will map, measure and identify all trees ≥ 6 " in DBH at these points and within these polygons.

3. Conduct early- and late-season field surveys and map occurrences of State and Federal Threatened or Endangered and State Special Concern plants in survey area. (May-September 2024)

Surveys will target the species noted below during their optimal detection periods. If any putative targets are observed but not confidently identified due to a lack of flowers or other reproductive material, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period will also be mapped.

Early-Season Targets	State Status	Late-Season Targets	State Status
<i>Carex amphibola</i> (sedge)	SC	<i>Angelica venenosa</i> (hairy angelica)	SC
		<i>Baptisia lactea</i> (white false indigo)	T
		<i>Filipendula rubra</i> (queen of the prairie)	T
		<i>Fraxinus profunda</i> (pumpkin ash)	T

Surveys will begin by driving the corridor. Areas that are clearly unsuitable habitat (e.g., lawn) may not be surveyed on foot. In other sections, surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way in one direction, then meander the other side back to the vehicle, then move on to the next area and repeat. Exact distances will vary based upon survey request and site-specific conditions and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a mobile phone or Samsung tablet, and MNFI rare plant forms will be submitted. GPS points of isolated occurrences of priority invasive species will be collected on a mobile phone or tablet.

4. Collect data for State or Federal Threatened or Endangered or State Special Concern plants for permitting purposes, where impacts are anticipated. (May-September 2024)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the approximate number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines, and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the Threatened, Endangered, or Special Concern species, major associated species, current threats, and anticipated impacts of project implementation.

5. Inform MDOT expeditiously if any State or Federal Threatened or Endangered or State Special Concern species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (May-September 2024)

Surveyors will report any newly documented occurrences of State or Federal Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along with the shapefiles and associated data collected in item 4 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. *All correspondence will include the Project Number.* The PI will save them to the MNFI shared drive and forward them on to MDOT.

6. Prepare and deliver final report of survey corridor and rare plant occurrences documented to MDOT. (July-September 2024)

MNFI will prepare a final report summarizing survey results with ample photo-documentation.

7. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (July-December 2024)

MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted from May-September 2024 with shapefiles of target species delivered expeditiously after each survey visit. Data on tree species and diameters will be delivered to MDOT by September 13, 2024. The final report and invasive species GIS data will be delivered by September 27, 2024. Dates for conducting each specific task are noted by objective above.

Deliverables:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of documented Threatened, Endangered, or Special Concern species delivered after 1) early-season surveys and 2) late-season surveys. These will include points, lines and polygons as determined by the amount and distribution of the species documented.
- A brief final report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed will be delivered by September 27, 2024
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered by September 27, 2024.
- GPS shapefiles, DBH, and species identification of all trees $\geq 6''$ in DBH within the clear zones will be delivered by September 13, 2024.

Location: This project will be conducted in Lansing and in Calhoun County.

Reporting:

Brief interim reports will be submitted and discussed with the MDOT sponsor after each survey period. We will review progress on the project for each time period and deliver shapefiles (points, lines, polygons) of any target species documented. Additional communication via email or phone will be used as needed throughout the project. The final report will be provided by September 27, 2024.

2. Project 210082 – M-59 from Milford Road to Pontiac Lake Road

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2024)

Review aerial photos, maps, and delineated stretches of highway right-of-way, interchanges, and any other areas requiring survey. Upload pertinent data layers to Samsung tablet and/or mobile phone.

2. Conduct early- and late-season field surveys and map occurrences of State and Federal Threatened or Endangered and State Special Concern plants in survey area. (May-October 2024)

Surveys will target the species noted below during their optimal detection periods. If any putative targets are observed but not confidently identified due to a lack of flowers or other reproductive material, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period will also be mapped.

Early-Season	State Status	Late-Season	State Status
<i>Castanea dentata</i> (American chestnut)	E	<i>Angelica venenosa</i> (hairy angelica)	SC
<i>Galearis spectabilis</i> (showy orchis)	T	<i>Panax quinquefolius</i> (ginseng)	T
<i>Hydrastis canadensis</i> (goldenseal)	T		
<i>Jeffersonia diphylla</i> (twinleaf)	SC		

Surveys will begin by driving the corridor. Areas that are clearly unsuitable habitat (e.g., lawn) may not be surveyed on foot. In other sections, surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request, site-specific conditions, and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet or mobile phone, and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be collected on a Samsung tablet or mobile phone.

3. Collect data for State of Federal Threatened or Endangered or State Special Concern plants for permitting purposes, where impacts are anticipated. (May-October 2024)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the approximate number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines, and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the Threatened, Endangered, or Special Concern species, major associated species, current threats, and anticipated impacts of project implementation.

4. Inform MDOT expeditiously if any State or Federal Threatened or Endangered or State Special Concern species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (May-October 2024)

Surveyors will report any newly documented occurrences of State or Federal Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along

with the shapefiles and associated data collected in item 3 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. The PI will save them to the MNFI shared drive and forward them on to MDOT. *All correspondence will include the Project Job Number.*

5. Prepare and deliver report of survey corridor and rare plant occurrences documented to MDOT. (October-December 2024)

MNFI will prepare a final report summarizing survey results with ample photo-documentation.

6. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2024)

MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Preparation and field work will be conducted during April-October 2024 with shapefiles of target species delivered expeditiously after early- and late-season surveys. The final report will be delivered to MDOT by December 31, 2024. Dates for conducting each specific task are noted by objective above.

Deliverables, Products, and Annual Milestones:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of any Threatened, Endangered, or Special Concern species documented expeditiously after 1) early-season surveys and 2) late-season surveys. These will include points, lines and polygons as determined by the amount and distribution of the species documented.
- A brief report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed.
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period.

Location: This project will be conducted in Lansing and in Oakland County.

Reporting:

Brief interim reports will be submitted and discussed with the MDOT sponsor after each survey. We will review progress on the project and deliver shapefiles (points, lines, polygons) of target species documented. Additional communication via email or phone will be used as needed throughout the project. The final report will be delivered by December 31, 2024.

3. Project 211804 – I-94 Crash Investigation Sites

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2024)

Review aerial photos, maps, and delineated stretches of highway right-of-way, interchanges, and any other areas requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct early and mid-season field surveys and map occurrences of State and Federal Threatened or Endangered and State Special Concern plants in survey area. (May-October 2024)

Surveys will target the species noted below during their optimal detection periods. If any putative targets are observed but not confidently identified due to a lack of flowers or other reproductive material, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period will also be mapped.

Early-Season	State Status	Mid-Season	State Status	Late-Season	State Status
<i>Carex amphibola</i> (sedge)	SC	<i>Adlumia fungosa</i> (climbing fumitory)	T	<i>Arnoglossum plantagineum</i> (prairie Indian-plantain)	SC
<i>Carex platyphylla</i> (sedge)	E	<i>Amorpha canescens</i> (leadplant)	SC	<i>Brickellia eupatorioides</i> (false boneset)	SC
<i>Galearis spectabilis</i> (showy orchis)	T	<i>Baptisia lactea</i> (prairie false indigo)	T	<i>Dalea purpurea</i> (purple prairie-clover)	X
<i>Trillium recurvatum</i> (prairie trillium)	SC	<i>Cirsium hillii</i> (Hill's thistle)	SC	<i>Juncus brachycarpus</i> (short-fruited rush)	T
<i>Viola pedatifida</i> (prairie birdfoot violet)	E	<i>Filipendula rubra</i> (queen of the prairie)	T	<i>Juncus scirpoides</i> (Scirpus-like rush)	T
		<i>Hydrastis canadensis</i> (goldenseal)	T	<i>Lipocarpa micrantha</i> (dwarf bulrush)	SC
		<i>Hypericum gentianoides</i> (gentian-leaved St. John's-wort)	SC	<i>Polygala cruciata</i> (cross-leaved milkwort)	SC
		<i>Panax quinquefolius</i> (ginseng)	T	<i>Platanthera ciliaris</i> (orange-fringed orchid)	E
		<i>Silphium perfoliatum</i> (cup plant)	T	<i>Potamogeton pulcher</i> (spotted pondweed)	T
		<i>Tipularia discolor</i> (crane-fly orchid)	E	<i>Sabatia angularis</i> (rosepink)	T
		<i>Trichostema dichotomum</i> (bastard pennyroyal)	T	<i>Sporobolus heterolepis</i> (prairie dropseed)	SC
		<i>Zizania aquatica</i> (wild rice)	T	<i>Strophostyles helvula</i> (trailing wild bean)	SC
				<i>Triphora trianthophora</i> (three birds orchid)	T
				<i>Triplasis purpurea</i> (sand grass)	SC

Surveys will begin by driving the corridor. Areas that are clearly unsuitable habitat (e.g., lawn) may not be surveyed on foot. In other sections, surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request, site-specific conditions, and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet or mobile phone and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be collected on a Samsung tablet or mobile phone.

3. Collect data for State and Federal Threatened or Endangered and State Special Concern plants for permitting purposes, where impacts are anticipated. (May-October 2024)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines, and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the Threatened, Endangered, or Special Concern species, major associated species, current threats, and anticipated impacts of project implementation.

4. Inform MDOT expeditiously if any State or Federal Threatened or Endangered or State Special Concern species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (May-October 2024)

Surveyors will report any newly documented occurrences of State or Federal Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along with the shapefiles and associated data collected in item 3 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. *All correspondence will include the Project Job Number.* The PI will save them to the MNFI share drive and forward them on to MDOT.

5. Prepare and deliver final report of survey corridor and rare plant occurrences documented to MDOT. (October-December 2024)

MNFI will prepare a final report summarizing survey results with ample photo-documentation.

6. Transcribe relevant rare species data into Michigan's Natural Heritage Database. (October-December 2024)

MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted from May-October 2024 with shapefiles of target species delivered after each survey period. Final products will be delivered to MDOT by December 31, 2024. Dates for conducting each specific task are noted by objective above.

Deliverables, Products, and Annual Milestones:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of documented Threatened, Endangered, or Special Concern species delivered expeditiously after 1) early-season, (2), mid-season, and (3) late-season surveys. These will include points, lines and polygons as determined by the amount and distribution of the species documented.
- A brief report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed.
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period.

Location: This project will be conducted in Lansing and in Berrien, Van Buren, Kalamazoo, and Calhoun Counties.

Reporting:

Brief interim reports will be submitted and discussed with the MDOT sponsor after each survey period. We will review progress on the project and deliver shapefiles (points, lines, polygons) of any target species documented during surveys. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be delivered by December 31, 2024.

4. Project 219292 - Blood Run Creek Culvert Replacement

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2024)

Review aerial photos, maps, and delineated stretches of highway right-of-way, interchanges, and any other areas requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct early- and late-season field surveys and map occurrences of State or Federal Threatened or Endangered or State Special Concern plants in survey area. (May-October 2024)

Surveys will target the species noted below during their optimal detection periods. If any targets are observed earlier than their optimal survey window, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period will also be mapped.

Early-Season	State Status	Mid-Season	State Status	Late-Season	State Status
<i>Carex amphibola</i> (sedge)	SC	<i>Dichanthelium polyanthes</i> (round-seed panic-grass)	E	<i>Aristida longespica</i> (three-awned grass)	SC
<i>Polemonium reptans</i> (Jacob's ladder)	T	<i>Gratiola virginiana</i> (annual hedge hyssop)	T	<i>Eutrochium fistulosum</i> (hollow-stemmed Joe-Pye weed)	T
		<i>Hypericum gentianoides</i> (gentian-leaved St. John's-wort)	SC	<i>Fraxinus profunda</i> (pumpkin ash)	T
		<i>Panax quinquefolius</i> (ginseng)	T	<i>Helianthus mollis</i> (downy sunflower)	SC
		<i>Tipularia discolor</i> (crane-fly orchid)	E	<i>Juncus scirpoides</i> (Scirpus-like rush)	T
		<i>Zizania aquatica</i> (wild rice)	T	<i>Lycopodiella subappressa</i> (northern appressed clubmoss)	T
				<i>Sabatia angularis</i> (rosepink)	T

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the survey area in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request, site-specific conditions, and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet or mobile phone, and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be on a Samsung tablet or mobile phone.

3. Collect data for State or Federal Threatened or Endangered or State Special Concern plants for permitting purposes, where impacts are anticipated. (May-October 2024)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be

marked with points, linear occurrences will be marked with lines, and large, dense populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the Threatened, Endangered, or Special Concern species, major associated species, current threats, and anticipated impacts from project implementation.

4. Inform MDOT expeditiously if any State or Federal Threatened or Endangered or State Special Concern species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (May-October 2024)

Surveyor will report any newly documented occurrences of State or Federal Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT expeditiously when they are found, along with the associated data collected in item 3 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. *All correspondence will include the Project Job Number.* The PI will save them to the MNFI shared drive and forward them on to MDOT.

5. Prepare and deliver final report of survey corridor and rare plant occurrences documented. (October-December 2024)

MNFI will prepare and deliver a final report summarizing survey methods and results including ample photo-documentation.

6. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2024)

MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted in May-October 2024, with shapefiles of target species delivered expeditiously after early-, mid-, and late-season surveys. Final products will be delivered to MDOT by December 31, 2024. Dates for conducting each specific task are noted by objective above.

Deliverables, Products, and Annual Milestones:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of any Threatened, Endangered, or Special Concern species documented expeditiously after 1) early-season surveys, 2) mid-season surveys, and 3) late-season surveys. These will include points, lines and polygons as determined by the amount and distribution of the species documented.
- A final report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed.
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period.

Location: This project will be conducted in Lansing and in Berrien County.

Reporting:

Short interim reports will be submitted and discussed with the MDOT sponsor after each survey. We will review progress on the project and deliver shapefiles (points, lines, polygons) of any target species documented during each period. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be provided by December 31, 2024.

5. Project 9902E - East Branch of Ontonagon River at US-45

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2024)

Review aerial photos, maps, and delineated stretches of highway right-of-way, interchanges, and any other areas requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct early- and mid-season field surveys and map occurrences of State or Federal Threatened or Endangered or State Special Concern plants in survey area. (May-July 2024)

Surveys will target the species noted below during their optimal detection periods. If any targets are observed earlier than their optimal survey window, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period will also be mapped.

Early-Season	State Status	Mid-Season	State Status
<i>Cardamine maxima</i> (large toothwort)	SC	<i>Astragalus canadensis</i> (Canadian milk-vetch)	SC
<i>Collinsia parviflora</i> (small blue-eyed Mary)	SC	<i>Astragalus neglectus</i> (Cooper's milk-vetch)	SC
<i>Cypripedium arietinum</i> (ram's head lady's-slipper)	SC	<i>Pterospora andromeda</i> (pine-drops)	T
<i>Galearis spectabilis</i> (showy orchis)	T	<i>Silene nivea</i> (evening campion)	T

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the survey area in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request, site-specific conditions, and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet or mobile phone, and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be on a Samsung tablet or mobile phone.

3. Collect data for State or Federal Threatened or Endangered or State Special Concern plants for permitting purposes, where impacts are anticipated. (May-July 2024)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines, and large, dense populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the Threatened, Endangered, or Special Concern species, major associated species, current threats, and anticipated impacts from project implementation.

4. Inform MDOT expeditiously if any State or Federal Threatened or Endangered or State Special Concern species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (May-July 2024)

Surveyor will report any newly documented occurrences of State or Federal Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT expeditiously when they are

found, along with the associated data collected in item 3 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. *All correspondence will include the Project Job Number.* The PI will save them to the MNFI shared drive and forward them on to MDOT.

5. Prepare and deliver final report of survey corridor and rare plant occurrences documented. (October-December 2024)

MNFI will prepare and deliver a final report summarizing survey methods and results including ample photo-documentation.

6. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2024)

MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted in May-July 2024, with shapefiles of target species delivered expeditiously after early-, mid-, and late-season surveys. Final products will be delivered to MDOT by December 31, 2024. Dates for conducting each specific task are noted by objective above.

Deliverables, Products, and Annual Milestones:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of any Threatened, Endangered, or Special Concern species documented expeditiously after 1) early-season surveys, 2) mid-season surveys, and 3) late-season surveys. These will include points, lines and polygons as determined by the amount and distribution of the species documented.
- A final report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed.
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period.

Location: This project will be conducted in Lansing and in Ontonagon County.



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 320 S. WALNUT ST., LANSING, MICHIGAN 48933
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **18**
 to
 Contract Number **180000000169**

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs , 426 Auditorium Rd, Roo
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	osp.awards@campusad.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
Contract Administrator	Adam Ashley	DTMB	
	(517)855-1376		
	ashleya2@michigan.gov		

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2024
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$13,987,982.93	\$230,223.91	\$14,218,206.84		

DESCRIPTION

Effective May 21 2024, \$230,223.91 is hereby added to the contract for DNR.

Please note the Contract Administrator has been changed to Adam Ashley
 ashleya2@michigan.gov
 (517) 855-1376

All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement, DTMB Central Procurement approval, and State Administrative Board approval on 5/21/24.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 320 S. WALNUT ST., LANSING, MICHIGAN 48933
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number 17
 to
 Contract Number 180000000169

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs , 426 Auditorium Rd, Roo
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
	Contract Administrator	Jordana Sager	DTMB
		(517) 896-1903 sagerj2@michigan.gov	

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2024
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$13,987,982.93	\$0.00	\$13,987,982.93		

DESCRIPTION

Effective October 27, 2023, the Contract is hereby updated with the following Contractor's personnel changes:

1. Director of MNFI: Mike Monfils replaces Brian Klatt
2. Principal Investigator (PI) for MDOT NEPA Assistance (Add with CN 13): Scott Warner replaces Brian Klatt
3. Elizabeth Haber removed from contract

All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov



**STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES**

Department of Technology, Management, and Budget
320 S. WALNUT ST., LANSING, MICHIGAN 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **16**
to
Contract Number **180000000169**

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs , 426 Auditorium Rd, Roo
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
	Contract Administrator	Jordana Sager	DTMB
		(517) 896-1903	
		sagerj2@michigan.gov	

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2024
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$13,813,750.45	\$174,232.48	\$13,987,982.93		

DESCRIPTION

Effective July 24, 2023, the attached Work Plan for MDOT is hereby added and the Contract is increased by \$174,232.48.
All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

Title:	MDOT Rare Species Surveys 2023		
MDOT Projects:	1131E, 204085, 204883, 208915, 209377, 209508, 209684, 211155, 213488, 217041, 217104, 76899		
Principal Investigator:			
Sponsor:	Dave Schuen, Michigan Department of Transportation (MDOT)		
Project Beginning Date:	April 1, 2023	Project End Date:	Dec. 31, 2023
Budget Request for Current Year:	\$121,933.39 / Y2 - \$52,299.09 - \$174,232.48 - total		
Statement of Need: Services are requested to complete rare plant species surveys or other activities as noted for the projects listed below.			

<p>1. Project 1131E – Ford Battery Plant, Marshall, Calhoun County: A large battery plant is to be built by Ford Motor Company, occupying a triangle that will run between the following junctions: I-94 – 11 Mile Rd., I-94 – I 69, Michigan Ave. – I-69, and back to I-94 – 11 Mile Rd. MNFI will be surveying all interchanges and road rights-of-way that span the area on behalf of MDOT, as well as private property parcels adjacent to the roadsides which have granted permission to survey. This is among Governor Whitmer’s priority projects. The area has many rare-plant records, some of which are suspected to have been planted.</p> <p>2. Project 204085 – I-75 Otter Creek Sullivant’s Milkweed Transplant, Monroe County: Surveys are needed to re-locate previously flagged Sullivant’s milkweed (<i>Asclepias sullivantii</i>) plants for removal from the I-75 ROW and transplant to suitable habitat in nearby Sterling State Park. The transplant was attempted in fall of 2022 but had to be abandoned due to unsuitable soil conditions. A target of 150 Sullivant’s milkweed plants will be transplanted once the plants have emerged from dormancy in late May or early June.</p> <p>3. Project 204883 – I-94 and M-40 Paw Paw, Van Buren County: Rare plant surveys are required before upcoming road improvement work in the project corridor. A number of stream crossings intersect the project area and there is suitable habitat for both wetland and upland rare plant species within the rights-of-way. All rights-of-way, interchanges, bridges, and water crossings are included in the survey target areas.</p> <p>4. Project 208915 – Allen Road over I-69 Bridge Replacement, St. Clair County: Surveys are required prior to the bridge replacement, which will include a minor structure raise, approach replacement on both ends, and enlargement of the slopes on either side of the bridge. Tree-cutting will occur in the adjacent woods, and cranes and pads will be placed on site.</p> <p>5. Project 209377 – I-96 ITS Highway Management System, Ionia County: Intelligence Transportation System signs will be installed at five locations along I-96 between Portland and the Grand Rapids Metro Area to provide motorists with information on traffic conditions. Installation impacts will occur over footprints roughly 50’ x 100’ at each sign location, as well as along a 10’-wide line leading to the power source. Surveys are needed prior to the installations.</p> <p>6. Project 209508 – Sleeping Bear Trail (Segment Nine), Leelanau County: Rare plant surveys are required prior to the expansion of the Sleeping Bear Heritage Trail. The trail will be 10’ wide and made of asphalt, timber boardwalk, and crushed stone trail with associated retaining walls. More than 5 acres of tree removal are planned within the trail corridor. Surveys for rare plants will target areas within a 100’ buffer of the intended trail centerline.</p> <p>7. Project 209684 – Trillium transplant from M-139 over Franz & Notten Drain to Blue Creek Fen,</p>			

Berrien County: A failed culvert will be completely replaced. This would impact ~500 prairie trillium (*Trillium recurvatum*, formerly state-threatened but recently delisted) and ~230 toadshade (*Trillium sessile*). Prior to culvert replacement, both species will be transplanted to a wooded slope above Blue Creek Fen on MDOT-owned property east of Benton Center Rd. and south of Territorial Rd. near Benton Harbor.

8. Project 211155 – US-23 from I-94 to M-14 in Ann Arbor, Washtenaw County: Surveys are required for an Environmental Assessment for the Federal Highway Administration (FHWA) to determine if impacts are large enough to elevate this to an Environmental Impact Statement. This is required prior to completing road reconstruction with the addition of a lane and potential bridge replacements throughout the entire corridor. Most of the corridor was surveyed last year, however, recent additions to the project mean that small parcels of land will need to be surveyed along much of the original corridor. Additionally, the partial interchange where the western terminus of M-14 meets I-94 has been added to the project, and that will need to be surveyed.

9. Project 213488 – U.S. 23 School to Ida Roads, Monroe County: Rare plant surveys are required before construction work in this corridor of US-23. The work will entail road reconstruction, repaving the entire corridor and welcome center, ramp extensions at the interchange and new shoulders/widening. The entire corridor will be surveyed, with special attention paid to an MDOT Protected Area at the northwest corner of the Summerfield Road interchange and two Scenic Strips along the ramps in the southern half of the intersection.

10. Project 217041 – M-123 over Bissell Creek, Mackinac County: A large culvert replacement will occur with approach work on both ends of the crossing and impacts expected in wetlands. Surveys are needed prior to the culvert replacement.

11. Project 217104 – M-43 over Watson Drain, Barry County: Rare plant surveys are required before culvert replacement and associated construction work on M-43. A large road culvert where Watson Drain intersects M-43 requires complete replacement. Road approaches leading up to the culvert on both sides of the Drain will also be replaced. Work will occur in the wetlands and floodplains surrounding Watson Darin and EGLE permits will be required.

12. Project 76899 – US-24 from Carter to Pennsylvania, Wayne County: Rare invertebrate surveys are required before construction work occurs on US-24 (Telegraph Road). Impacts to ditches with wetland vegetation are expected from the construction. Work will be done on a railroad bridge over M-24 and staging for that work is planned in the railroad ROW at the intersection of the railroad and Bailey Road. Surveys for one rare bumblebee, two rare leafhoppers, and one rare Lepidoptera will be conducted.

Expected Benefits:

This work fulfills regulatory compliance for the state and federal Endangered species acts with the MDNR and USFWS in order to obtain federal funding from FHWA for the transportation projects noted above. Our goal is to assist MDOT in the delivery of the Rebuilding Michigan Program set forth by the Governor. This work will provide baseline data for MDNR permitting and Section 7 consultation if required and strengthen the relationship between the Michigan Natural Features Inventory (MNFI) and the Michigan Department of Transportation (MDOT). MNFI has many years of experience working with Michigan's most vulnerable species and MDOT has many years of experience identifying and mitigating impacts anticipated from road construction activities to these vulnerable species. This work will also enhance Michigan's Natural Heritage database by capturing rare species occurrence data that are documented during surveys.

Objectives Work Plan/Approach

The specific objectives, work plan, timeline and location are described separately below for each project. The total budget for all of the projects combined is presented below.

Timeline

All surveys and transplanting will be conducted between May and November 2023. Shapefiles of rare species will be delivered to MDOT with a brief narrative via email right after their documentation for each survey period for each project. Specific timelines are provided separately for each project in the following pages. Final reports for each project will be delivered by December 31, 2023.

Location

The projects are located in Barry, Calhoun, Ionia, Leelanau, Mackinac, Monroe, St. Clair, Van Buren, Washtenaw, and Wayne Counties. Specific locations are detailed for each project separately in the following pages.

Deliverables

- Shapefiles for target species documented and a short interim report will be delivered after each survey in a project area, as detailed in the following pages. The number of seasonal surveys varies by project.
- ~150 Sullivant’s milkweed plants transplanted from I-75 to Sterling State Park.
- ~500 prairie trillium and ~236 toadshade plants transplanted from M-139 culvert replacement site.
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period
- All final reports will be delivered by December 31, 2023.

Budget: Costs are separated out for Year 1, Year 2, and overall project total.

Contract Type/Payments: This is a fixed price contract.				
Costs are combined totals for all ten projects for each category				
	Task or Direct Cost Category	Year 1	Year 2	Years 1 and 2
	Personnel	\$64,254.50	\$41,507.20	\$105,761.70
	Travel	\$10,547.06	---	\$10,547.06
	Supplies	\$21,971.00 ¹	---	\$21,971.00 ¹
	Indirect Cost (Rate: 26%)	\$25,160.83	\$10,791.89	\$35,952.72
	Budget Total:	\$121,933.39	\$52,299.09	\$174,232.48

¹ All contractor costs (supplies, labor, travel) are charged as supplies.

1. Project 1131E – Ford Battery Plant

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2023)

Review aerial photos, maps, and delineated stretches of highway right-of-way, interchanges, stream/river crossings, and any other areas requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct early and mid-season field surveys and map occurrences of State and Federally listed and State Special Concern plants in survey area. (May-October 2023)

Surveys will target the species noted below during their optimal detection periods. If any targets are observed earlier than their optimal survey window, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period, will also be mapped.

Early/mid-Season	Status	Mid/late-Season	Status
<i>Carex trichocarpa</i> x <i>C. atherodes</i>	SC*	<i>Amorpha canescens</i>	SC
<i>Cypripedium candidum</i>	T	<i>Angelica venenosa</i>	SC
<i>Geum triflorum</i>	T	<i>Baptisia lactea</i>	T
<i>Geum virginianum</i>	T	<i>Bouteloua curtipendula</i>	E
<i>Hydrastis canadensis</i>	T	<i>Conioselinum chinense</i>	SC
		<i>Coreopsis palmata</i>	E
		<i>Dalea purpurea</i>	X
		<i>Echinacea purpurea</i>	X
		<i>Eryngium yuccifolium</i>	E
		<i>Filipendula rubra</i>	T
		<i>Platanthera ciliaris</i>	E
		<i>Silphium integrifolium</i>	T
		<i>Silphium perfoliatum</i>	T
		<i>Sporobolus heterolepis</i>	SC
		<i>Viola pedatifida</i>	E
		<i>Zizania aquatica</i>	T

* *Carex trichocarpa* is listed as State Special Concern; *C. atherodes* is not state listed

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request and site-specific conditions and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet, GIS application on a smartphone, or Garmin GPS unit and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be collected according to MISIN (Midwest Invasive Species Information Network) guidelines on a Samsung tablet, Smartphone, or Garmin GPS unit.

3. **Collect data for state listed plants for permitting purposes, where impacts are anticipated. (May-October 2023)**
 GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the listed species, major associated species, current threats, and anticipated impacts of project implementation.
4. **Inform MDOT immediately if any state or federally listed species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (May-October 2023)**
 Surveyors will report any newly documented occurrences of State or Federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along with the shapefiles and associated data collected in item 3 above. This will be done via a brief summary report e-mailed to the Project PI, with shapefiles attached after each survey period. *All correspondence will include the Project Number.* The PI will save them to the MNFI share drive and forward them on to MDOT.
5. **Prepare and deliver final report of survey corridor and rare plant occurrences documented to MDOT. (October-December 2023)**
 MNFI will prepare a short final report summarizing survey results with ample photo-documentation.
6. **Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2023)**
 MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:
 Field work will be conducted from May-October 2023 with shapefiles of target species delivered immediately after each survey visit. Final products will be delivered to MDOT by December 31, 2023. Dates for conducting each specific task are noted by objective above.

- Deliverables:**
 MNFI will deliver the following to MDOT:
- GPS shapefiles of the distribution of documented Threatened, Endangered, or Special Concern species delivered after 1) spring surveys, 2) summer surveys and 3) fall surveys. These will include point, lines and polygons as determined by the amount and distribution of the species documented.
 - A short report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed.
 - GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period.

Location: This project will be conducted in Lansing and Calhoun County.

Reporting:

Short interim reports will be submitted and discussed with the MDOT sponsor after each survey period. We will review progress on the project for each time period and deliver shapefiles (point, lines, polygons) of any target species documented. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be provided by December 31, 2023.

2. Project 204085: I-75 Otter Creek Transplant

1. Desktop preparation for transplanting (April-May 2023)

MNFI will review reports from the 2021 survey and 2022 transplant attempt. Shapefiles with the locations of the flagged Sullivant's milkweed (*Asclepias sullivantii*) in the I-75 ROW between Laplainsance Road and Luna Pier Road will be loaded onto a Samsung Galaxy tablet for assistance with relocation in the field. Shapefiles of suitable transplant sites in Sterling State Park will be loaded onto the tablet for assistance with navigating to the transplant site.

2. Re-locate marked plants for transplant and revisit transplant location. (May-June 2023)

MNFI will re-locate and count marked plants from last year's census. Plant phenology will be assessed, and the transplant site will be reviewed to ensure conditions are optimal for transplant.

3. Transplant I-75 plants to the Sterling State Park transplant site. (June 2023)

MNFI will work with Sterling State Park staff and others as needed to dig up, move and transplant the Sullivant's milkweed plants to locations with appropriate habitat and supportive growth conditions for this species in Sterling State Park. Transplanted plants will be marked with flagging and mapped with a GPS for subsequent monitoring by MDOT.

4. Prepare and deliver report of mitigation activities to MDOT and MDNR. (September-December 2023)

MNFI will write a short report according to the MDNR permit specifications describing the actions taken and results and deliver it to MDOT and MDNR Endangered species staff.

5. Deliver rare species data from I-75 corridor and transplant sites to MDOT. (June-September 2023)

MNFI will deliver GPS shapefiles of points, lines and/or polygons showing the transplanted plants and any new plants found in the right-of-way.

6. Transcribe relevant rare species data into Michigan's Natural Heritage Database. (September-December 2023)

MNFI will transcribe relevant Sullivant's milkweed occurrence data from the right-of-way and transplanted plants into the Natural Heritage Database.

Timeline:

Preparation and transplant work will be conducted in April-June 2023, with final products delivered by December 31, 2023. Dates for completing each objective are noted above.

Deliverables, Products, and Annual Milestones:

MNFI will deliver the following:

- A short report describing mitigation activities undertaken (to MDOT and MDNR)
- GPS shapefiles of transplanted plants and any additional rarities noted during transplant (to MDOT)

Location: This project will be conducted in Lansing and in Monroe County.

Reporting:

The results of the transplant will be shared with the MDOT sponsor upon completion of transplant via a brief email. We will review progress on the project and deliver shapefiles (point, lines, polygons) transplant locations and locations of any other rare species encountered. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be provided by December 31, 2023.

3. Project 204883 – I-94 and M-40

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2023)

Review aerial photos, maps, and delineated stretches of highway right-of-way, interchanges, and any other areas requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct mid and late-season field surveys and map occurrences of State and Federally listed and State Special Concern plants in survey area. (June-September 2023)

Surveys will target the species noted below during their optimal detection periods. If any targets are observed earlier than their optimal survey window, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period will also be mapped.

Mid-Season		Late-Season	
<i>Agrimonia rostellata</i>	SC	<i>Silphium perfoliatum</i>	T
<i>Amorpha canescens</i>	SC	<i>Sporobolus heterolepis</i>	SC
<i>Asclepias purpurascens</i>	T	<i>Triplasis purpurea</i>	SC
<i>Baptisia lactea</i>	T		
<i>Cirsium hillii</i>	SC		
<i>Eryngium yuccifolium</i>	E		
<i>Trichostema dichotomum</i>	T		

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request, site-specific conditions, and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet, GIS application on a smartphone, or Garmin GPS unit and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be collected according to MISIN (Midwest Invasive Species Information Network) guidelines on a Samsung tablet, Smartphone, or Garmin GPS unit.

3. Collect data for state listed plants for permitting purposes, where impacts are anticipated. (June-September 2023)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines, and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the listed species, major associated species, current threats, and anticipated impacts of project implementation.

4. Inform MDOT immediately if any State or Federally listed species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (June-September 2023)

Surveyors will report any newly documented occurrences of State or Federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along

with the shapefiles and associated data collected in item 3 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. The PI will save them to the MNFI share drive and forward them on to MDOT. *All correspondence will include the Project Job Number.*

5. Prepare and deliver report of survey corridor and rare plant occurrences documented to MDOT. (October-December 2023)

MNFI will prepare a short final report summarizing survey results with ample photo-documentation.

6. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2023)

MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Preparation and field work will be conducted during April-October 2023 with shapefiles of target species delivered immediately after spring, summer and fall surveys. The final report will be delivered to MDOT by December 31, 2023. Dates for conducting each specific task are noted by objective above.

Deliverables, Products, and Annual Milestones:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of any Threatened, Endangered, or Special Concern species documented immediately after 1) spring surveys, 2) summer surveys and 3) fall surveys. These will include point, lines and polygons as determined by the amount and distribution of the species documented.
- A short report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed.
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period.

Location: This project will be conducted in Lansing and in Van Buren County.

Reporting:

Short interim reports will be submitted and discussed with the MDOT sponsor after each survey. We will review progress on the project and deliver shapefiles (point, lines, polygons) of target species documented. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be delivered by December 31, 2023.

4. Project 208915 – Allen Road over I-69 Bridge Replacement

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2023)

Review aerial photos, maps, and delineated stretches of highway right-of-way, interchanges, and any other areas requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct early and mid-season field surveys and map occurrences of State and Federally listed and State Special Concern plants in survey area. (May-August 2023)

Surveys will target the species noted below during their optimal detection periods. If any targets are observed earlier than their optimal survey window, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period, will also be mapped.

Early-Season	Status	Mid-Season	Status
<i>Cerastium velutinum</i>	X	<i>Aristida longespica</i>	SC
<i>Galearis spectabilis</i>	T	<i>Cuscuta indecora</i>	SC
<i>Lithospermum incisum</i>	X	<i>Dalea purpurea</i>	X
<i>Plantago cordata</i>	E	<i>Gymnocarpium robertianum</i>	T
<i>Ranunculus rhomboideus</i>	T	<i>Hypericum gentianoides</i>	SC
<i>Trillium undulatum</i>	E	<i>Juncus scirpoides</i>	T
		<i>Lycopodiella margueritae</i>	T
		<i>Persicaria careyi</i>	T
		<i>Polygala incarnata</i>	X
		<i>Pterospora andromedea</i>	T
		<i>Vitis vulpina</i>	SC

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request, site-specific conditions, and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet, GIS application on a smartphone, or Garmin GPS unit and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be collected according to MISIN (Midwest Invasive Species Information Network) guidelines on a Samsung tablet, Smartphone, or Garmin GPS unit.

3. Collect data for state listed plants for permitting purposes, where impacts are anticipated. (May-October 2023)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines, and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the listed species, major associated species, current threats, and anticipated impacts of project implementation.

4. Inform MDOT immediately if any state or federally listed species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (May-October 2023)

Surveyors will report any newly documented occurrences of State or Federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along with the shapefiles and associated data collected in item 3 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. *All correspondence will include the Project Job Number.* The PI will save them to the MNFI share drive and forward them on to MDOT.

5. Prepare and deliver final report of survey corridor and rare plant occurrences documented to MDOT. (October-December 2023)

MNFI will prepare a short final report summarizing survey results with ample photo-documentation.

6. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2023)

MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted from May-October 2023 with shapefiles of target species delivered after each survey period. Final products will be delivered to MDOT by December 31, 2023. Dates for conducting each specific task are noted by objective above.

Deliverables, Products, and Annual Milestones:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of documented Threatened, Endangered, or Special Concern species delivered immediately after 1) summer surveys and 2) fall surveys. These will include points, lines and polygons as determined by the amount and distribution of the species documented.
- A short report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed.
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period.

Location: This project will be conducted in Lansing and in St. Clair County.

Reporting:

Short interim reports will be submitted and discussed with the MDOT sponsor after each survey period. We will review progress on the project and deliver shapefiles (point, lines, polygons) of any target species documented during surveys. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be delivered by December 31, 2023.

5. Project 209377 – I-96 ITS Highway Management System

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2023)

Review aerial photos, maps, and delineated stretches of highway right-of-way, interchanges, and any other areas requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct early- and late-season field surveys and map occurrences of State and Federally listed plants in survey area. (May-October 2023)

Surveys will target the species noted below during their optimal detection periods. If any targets are observed earlier than their optimal survey window, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period, will also be mapped.

Early-Season		Late-Season	
<i>Besseyia bullii</i>	E	<i>Eryngium yuccifolium</i>	E
<i>Draba reptans</i>	T	<i>Silphium perfoliatum</i>	T
<i>Scutellaria parvula</i>	T	<i>Triphora trianthophora</i>	T
<i>Tradescantia virginiana</i>	T		

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the survey area in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request, site-specific conditions, and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet, GIS application on a smartphone, or Garmin GPS unit and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be collected according to MISIN (Midwest Invasive Species Information Network) guidelines on a Samsung tablet, Smartphone, or Garmin GPS unit.

3. Collect data for state listed plants for permitting purposes, where impacts are anticipated. (May-October 2023)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines, and large, dense populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the listed species, major associated species, current threats, and anticipated impacts from project implementation.

4. Inform MDOT immediately if any state or federally listed species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (May-October 2023)

Surveyor will report any newly documented occurrences of state or federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT immediately when they are found, along with the associated data collected in item 3 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. *All correspondence*

will include the Project Job Number. The PI will save them to the MNFI share drive and forward them on to MDOT.

5. Prepare and deliver final report of survey corridor and rare plant occurrences documented. (October-December 2023)

MNFI will prepare and deliver a short report summarizing survey methods and results including ample photo-documentation.

6. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2023)

MNFI will update the Database with current data for threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted in May-October 2023, with shapefiles of target species delivered immediately after spring, summer and fall surveys. Final products will be delivered to MDOT by December 31, 2023. Dates for conducting each specific task are noted by objective above.

Deliverables, Products, and Annual Milestones:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of any Threatened, Endangered, or Special Concern species documented immediately after 1) spring surveys, 2) summer surveys and 3) fall surveys. These will include point, lines and polygons as determined by the amount and distribution of the species documented.
- A short report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed.
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period.

Location: This project will be conducted in Lansing and in Ionia County.

Reporting:

Short interim reports will be submitted and discussed with the MDOT sponsor after each survey. We will review progress on the project and deliver shapefiles (point, lines, polygons) of any target species documented during each period. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be provided by December 31, 2023.

6. Project 209508 – Sleeping Bear Trail (Segment Nine)

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2023)

Review aerial photos, maps, and delineated stretches of trail right-of-way requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct early and mid to late-season field surveys and map occurrences of State and Federally listed and State Special Concern plants in survey area. (May – September 2023)

Surveys will target the species noted below during their optimal detection periods. If any targets are observed earlier than their optimal survey window, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period will also be mapped.

Early-Season	Status	Mid-Season	Status	Late-Season	Status
<i>Jeffersonia diphylla</i>	SC	<i>Berula erecta</i>	SC	<i>Cirsium pitcheri</i>	LT, T
<i>Cypripedium arietinum</i>	SC	<i>Cirsium pitcheri</i>	LT, T	<i>Orobanche fasciculata</i>	T
		<i>Orobanche fasciculata</i>	T	<i>Pterospora andromedea</i>	T
		<i>Pterospora andromedea</i>	T		

Surveys will be conducted by meander-survey within the specified polygon and right-of-way, including within streambanks, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander along one outer edge of the right-of-way in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request, site-specific conditions, and accessibility. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet, GIS application on a smartphone, or Garmin GPS unit and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be collected according to MISIN (Midwest Invasive Species Information Network) guidelines on a Samsung tablet, Smartphone, or Garmin GPS unit.

3. Collect data for state listed plants for permitting purposes, where impacts are anticipated. (May-October 2023)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines and large, dense populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the listed species, major associated species, current threats, and anticipated impacts of project implementation.

4. Inform MDOT immediately if any state or federally listed species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (May-October 2023)

Surveyor will report any newly documented occurrences of State or Federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found along with the shapefiles and associated data collected in item 3 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. The PI will save them to the MNFI share drive and forward them on to MDOT. *All correspondence will include the Project Job Number.*

5. Prepare and deliver final report of survey corridor and rare plant occurrences documented to MDOT. (October-December 2023)

MNFI will prepare a short final report summarizing survey results with ample photo-documentation.

6. Transcribe relevant rare species data into Michigan's Natural Heritage Database. (October-December 2023)

MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted from May-October 2023 with shapefiles of target species delivered after spring and fall surveys. Final products delivered to MDOT by December 31, 2023. Dates for conducting each specific task are noted by objective above.

Deliverables:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of documented Threatened, Endangered, or Special Concern species delivered immediately after surveys. These will include point, lines and polygons as determined by the amount and distribution of the species documented.
- A short report describing methods and findings with photo-documentation, and identification of avoidance, minimization, and suggested mitigation measures that could be employed in the project corridor if needed.
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period.

Location: This project will be conducted in Lansing and Leelanau County.

Reporting:

Short interim reports will be submitted and discussed with the MDOT sponsor after each survey. We will review progress on the project for each time period and deliver shapefiles (point, lines, polygons) of any target species documented. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be provided by December 31, 2023.

7. Project 209684 – Trillium transplant

1. Prepare and secure T&E permit from the DNR. (April-May 2023)

MNFI will work with MDNR to draft, refine, and secure a T & E permit for transplanting approximately 236 toadshade plants from the location previously documented in 2022 near Norton Drain along M-139 (hereafter, ‘construction site’). Though prairie trillium will also be transplanted, no permit is needed as that species is no longer state-listed.

2. Prepare for transplanting. (April-May 2023)

Review report from 2022 survey, study aerial imagery of the construction site and the site to which the plants will be moved (hereafter, ‘transplant site’), and assemble GIS files showing the location of the toadshade and prairie trillium which will be impacted by the culvert replacement.

3. Transplant toadshade and prairie trillium. (May 2023)

MNFI will dig up, move, and transplant the trillium species to the transplant site, a wooded slope above Blue Creek Fen, which is owned by MDOT. Plants will be transplanted in groups of 50, and the center of each group will be recorded with GPS coordinates for monitoring, which will occur in 2024 and 2026 per the terms of the permit.

4. Prepare and deliver report of mitigation activities to MDOT and MDNR. (December 2023)

MNFI will write a short report of mitigation activities to the MDNR permit specifications describing the actions taken and results and deliver it to MDOT and MDNR endangered species staff.

5. Deliver rare species data from mitigation and transplant sites. (October-December 2023)

MNFI will deliver GPS shapefiles of points, lines, and/or polygons showing the transplanted plants and any new rare plants encountered at either the mitigation site or the transplant site.

6. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2023)

MNFI will transcribe relevant toadshade and prairie trillium species occurrence data into the Natural Heritage database, as well as data for any other rare species encountered.

Timeline:

The transplant will be conducted in May. Final products will be delivered to MDOT and MDNR by December 31, 2023. Dates for conducting each specific task are noted by objective above.

Deliverables, Products, and Annual Milestones:

MNFI will deliver the following to MDOT:

- A short report describing mitigation activities undertaken (to MDOT and MDNR)
- GPS shapefiles of transplanted plants and any additional rarities noted during transplant (to MDOT).

Location: This project will be conducted in Lansing and in Berrien County.

Reporting:

The results of the transplant will be shared with the MDOT sponsor upon completion of transplant via a brief email. We will review progress on the project and deliver shapefiles (point, lines, polygons) of transplant locations and locations of any other rare species encountered. Additional communication via e-mail or phone will be used as needed throughout the project. The short report describing mitigation activities will be provided by December 31, 2023.

8. Project 211155: US-23 Environmental Assessment

1. Prepare field forms and GPS data layers, and plan survey route. (April-May 2023)

Review aerial photos, maps, and delineated stretches of highway right-of-way, interchanges, and any other areas requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct early, mid, and late-season field surveys and map occurrences of state and federally listed and state Special Concern plants in survey area. (May-October 2023)

Surveys will target the species noted below during their optimal detection periods. If any targets are observed earlier than their optimal survey window, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period, will also be mapped.

Early-Season	Status	Mid-Season	Status	Late-Season	Status
<i>Agrimonia rostellata</i>	T	<i>Angelica venenosa</i>	SC	<i>Chelone obliqua</i>	E
<i>Carex amphibola</i>	SC	<i>Asclepias purpurascens</i>	T	<i>Conioselinum chinense</i>	SC
<i>Carex trichocarpa</i>	SC	<i>Asclepias sullivantii</i>	T	<i>Gentiana alba</i>	E
<i>Collinsia verna</i>	T	<i>Astragalus neglectus</i>	SC	<i>Gentianella quinquefolia</i>	T
<i>Cypripedium candidum</i>	T	<i>Betula murrayana</i>	SC	<i>Graphephorum melicoides</i>	SC
<i>Euonymus atropurpureus</i>	SC	<i>Carex lupuliformis</i>	T	<i>Justicia americana</i>	T
<i>Galearis spectabilis</i>	T	<i>Chenopodium standleyanum</i>	SC	<i>Lechea minor</i>	T
<i>Hybanthus concolor</i>	SC	<i>Corispermum americanum</i>	SC	<i>Muhlenbergia richardsonis</i>	T
<i>Hydrastis canadensis</i>	T	<i>Dichanthelium leibergii</i>	T	<i>Sanguisorba canadensis</i>	E
<i>Jeffersonia diphylla</i>	SC	<i>Echinacea purpurea</i>	X	<i>Silphium perfoliatum</i>	T
<i>Lithospermum latifolium</i>	SC	<i>Endodeca serpentaria</i>	T	<i>Spiranthes ovalis</i>	T
<i>Poa paludigena</i>	SC	<i>Filipendula rubra</i>	T	<i>Stophostyles helvula</i>	SC
<i>Polemonium reptans</i>	T	<i>Geum virginianum</i>	SC	<i>Symphytotrichum praealtum</i>	SC
<i>Ranunculus rhomboides</i>	T	<i>Helianthus hirsutus</i>	SC		
<i>Tradescantia virginiana</i>	T	<i>Linum virginianum</i>	T		
<i>Trichophorum clintonii</i>	SC	<i>Morus rubra</i>	T		
<i>Trillium sessile</i>	T	<i>Panax quinquefolius</i>	T		
<i>Valeriana edulis</i>	T	<i>Potentilla canadensis</i>	SC		
		<i>Paronychia fastigiata</i>	X		
		<i>Penstemon pallidus</i>	X		
		<i>Platanthera ciliaris</i>	E		
		<i>Potentilla canadensis</i>	SC		
		<i>Prunus umbellata</i>	SC		
		<i>Scleria triglomerata</i>	SC		
		<i>Silphium laciniatum</i>	T		
		<i>Zizania aquatica</i>	T		

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way in one direction, then meander the other side back to the vehicle; then move on

to the next area and repeat. Exact distances will vary based upon survey request and site-specific conditions and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet, GIS application on a smartphone, or Garmin GPS unit and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be collected according to MISIN (Midwest Invasive Species Information Network) guidelines on a Samsung tablet, Smartphone, or Garmin GPS unit.

3. Collect data for state listed plants for permitting purposes, where impacts are anticipated. (May-October 2023)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the listed species, major associated species, current threats, and anticipated impacts of project implementation.

4. Inform MDOT immediately if any state or federally listed species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (May-October 2023)

Surveyors will report any newly documented occurrences of state or federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along with the shapefiles and associated data collected in item 3 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. *All correspondence will include the Project Number.* The PI will save them to the MNFI share drive and forward them on to MDOT.

5. Prepare and deliver report of survey corridor and rare plant occurrences documented to MDOT. (October-December 2023)

MNFI will prepare a short final report summarizing survey results with ample photo-documentation.

6. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2023)

MNFI will update Biotics with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted from May-October 2023 with shapefiles of target species delivered immediately after spring, summer, and fall surveys. Final products delivered to MDOT by December 31, 2023. Dates for conducting each specific task are noted by objective above.

Deliverables:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of documented Threatened, Endangered, or Special Concern species delivered after 1) spring surveys, 2) summer surveys and 3) fall surveys. These will include point, lines and polygons as determined by the amount and distribution of the species documented.

- A short report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed.
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period

Location: This project will be conducted in Lansing and Washtenaw County.

Reporting:

Short interim reports will be submitted and discussed with the MDOT sponsor after each survey period. We will review progress on the project for each time period and deliver shapefiles (point, lines, polygons) of any target species documented. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be provided by December 31, 2023.

9. Project 213488 – U.S. 23 School to Ida Roads, Monroe County

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2023)

Review aerial photos, maps, and delineated stretches of highway right-of-way, interchanges, and any other areas requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct mid and late-season field surveys and map occurrences of State and Federally listed and State Special Concern plants in survey area. (June-September 2023)

Surveys will target the species noted below during their optimal detection periods. If any targets are observed earlier than their optimal survey window, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period will also be mapped.

Early-Season		Mid-Season		Late-Season	
<i>Boechera missouriensis</i>	T	<i>Angelica venenosa</i>	SC	<i>Aristida longispeca</i>	SC
<i>Valenianella umbilicata</i>	E	<i>Asclepias hirtella</i>	T	<i>Helianthus mollis</i>	T
		<i>Asclepias purpurascens</i>	T	<i>Lechea pulchella</i>	T
		<i>Eryngium yuccifolium</i>	E	<i>Strophostyles helvula</i>	SC
		<i>Hypericum gentianoides</i>	SC	<i>Symphotrichum praealtum</i>	SC
		<i>Juncus antheratus</i>	SC		
		<i>Juncus brachycarpus</i>	T		
		<i>Leucospora multifida</i>	SC		
		<i>Polygala cruciata</i>	SC		
		<i>Scleria triglomerata</i>	SC		
		<i>Silphium perfoliatum</i>	T		

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request, site-specific conditions, and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet, GIS application on a smartphone, or Garmin GPS unit and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be collected according to MISIN (Midwest Invasive Species Information Network) guidelines on a Samsung tablet, Smartphone, or Garmin GPS unit.

3. Collect data for state listed plants for permitting purposes, where impacts are anticipated. (June-September 2023)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines, and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the listed species, major associated species, current threats, and anticipated impacts of project implementation.

4. Inform MDOT immediately if any State or Federally listed species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (June-September 2023)

Surveyors will report any newly documented occurrences of State or Federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along with the shapefiles and associated data collected in item 3 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. The PI will save them to the MNFI share drive and forward them on to MDOT. *All correspondence will include the Project Job Number.*

5. Prepare and deliver report of survey corridor and rare plant occurrences documented to MDOT. (October-December 2023)

MNFI will prepare a short final report summarizing survey results with ample photo-documentation.

6. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2023)

MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted from May-October 2023 with shapefiles of target species delivered after spring and fall surveys. Final products delivered to MDOT by December 31, 2023. Dates for conducting each specific task are noted by objective above.

Deliverables:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of documented Threatened, Endangered, or Special Concern species delivered immediately after surveys. These will include point, lines and polygons as determined by the amount and distribution of the species documented.
- A short report describing methods and findings with photo-documentation, and identification of avoidance, minimization, and suggested mitigation measures that could be employed in the project corridor if needed.
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period.

Location: This project will be conducted in Lansing and in Monroe County.

Reporting:

Short interim reports will be submitted and discussed with the MDOT sponsor after each survey. We will review progress on the project for each time period and deliver shapefiles (point, lines, polygons) of any target species documented. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be provided by December 31, 2023.

10. Project 217041 – M-123 over Bissell Creek

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2023)

MNFI will work with MDNR to draft, refine and secure a T & E permit for transplanting approximately 175 Sullivant's milkweed plants from the locations previously documented in 2021 near Otter Creek and the I-75-La Plaisance Interchange

2. Conduct early and mid-season field surveys and map occurrences of State and Federally listed and State Special Concern plants in survey area. (May-September 2023)

Surveys will target the species noted below during their optimal detection periods. If any targets are observed earlier than their optimal survey window, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period, will also be mapped.

Early-Season	Status	Mid-Season	Status
<i>Calypso bulbosa</i>	T	<i>Asplenium viride</i>	SC
		<i>Huperzia selago</i>	SC
		<i>Sporobolus heterolepis</i>	SC

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request, site-specific conditions, and accessibility. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet, GIS application on a smartphone, or Garmin GPS unit and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be collected according to MISIN (Midwest Invasive Species Information Network) guidelines on a Samsung tablet, Smartphone, or Garmin GPS unit.

3. Collect data for state listed plants for permitting purposes, where impacts are anticipated. (May-August 2023)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines, and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the listed species, major associated species, current threats, and anticipated impacts of project implementation.

4. Inform MDOT immediately if any state or federally listed species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (May-October 2023)

Surveyors will report any newly documented occurrences of State or Federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along with the shapefiles and associated data collected in item 3 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. *All correspondence*

will include the Project Job Number. The PI will save them to the MNFI share drive and forward them on to MDOT.

5. Prepare and deliver final report of survey corridor and rare plant occurrences documented to MDOT. (October-December 2023)

MNFI will prepare a short final report summarizing survey results with ample photo-documentation.

6. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2023)

MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted May-October, with final products delivered by December 31, 2023. Dates for completing each objective are noted above.

Deliverables, Products, and Annual Milestones:

MNFI will deliver the following:

- A short report describing mitigation activities undertaken (to MDOT and MDNR)
- GPS shapefiles of transplanted plants and any additional rarities noted during transplant (to MDOT)
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period.

Location: This project will be conducted in Lansing and in Mackinac County.

Reporting:

Short interim reports will be submitted and discussed with the MDOT sponsor after each survey period. We will review progress on the project and deliver shapefiles (point, lines, polygons) of any target species documented during surveys. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be delivered by December 31, 2023.

11. Project 217104 – M-43 over Watson Drain

1. Prepare field forms and GPS data layers and plan survey route. (April-May 2023)

Review aerial photos, maps, and delineated stretches of road right-of-way, stream crossings, and any other areas requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct mid and late-season field surveys and map occurrences of State and Federally listed and State Special Concern plants in survey area. (June-September 2023)

Surveys will target the species noted below during their optimal detection periods. If any targets are observed earlier than their optimal survey window, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period will also be mapped.

Early-Season		Mid-Season		Late-Season	
<i>Berula erecta</i>	SC	<i>Astragalus canadensis</i>	SC	<i>Bouteloua curtipendula</i>	E
<i>Cypripedium candidum</i>	T	<i>Fuirena pumila</i>	T	<i>Eleocharis equisetoides</i>	SC
		<i>Rhynchospora macrostachya</i>	SC		
		<i>Rhynchospora scirpoides</i>	SC		

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request, site-specific conditions, and accessibility. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet, GIS application on a smartphone, or Garmin GPS unit and MNFI rare plant forms and documentation will be recorded. GPS points of isolated occurrences of high-impact invasive species will be collected according to MISIN (Midwest Invasive Species Information Network) guidelines on a Samsung tablet, Smartphone, or Garmin GPS unit.

3. Collect data for state listed plants for permitting purposes, where impacts are anticipated. (June-September 2023)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines, and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the listed species, major associated species, current threats, and anticipated impacts of project implementation.

4. Inform MDOT immediately if any State or Federally listed species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (June-September 2023)

Surveyors will report any newly documented occurrences of State or Federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along with the shapefiles and associated data collected in item 3 above. This will be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. The PI will save them to the MNFI share drive and forward them on to MDOT. *All correspondence will include the Project Job Number.*

5. Prepare and deliver report of survey corridor and rare plant occurrences documented to MDOT. (October-December 2023)

MNFI will prepare a short final report summarizing survey results with ample photo-documentation.

6. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2023)

MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted from June-October 2023 with shapefiles of target species delivered after spring and fall surveys. Final products delivered to MDOT by December 31, 2023. Dates for conducting each specific task are noted by objective above.

Deliverables, Products, and Annual Milestones:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of documented Threatened, Endangered, or Special Concern species delivered immediately after surveys. These will include point, lines and polygons as determined by the amount and distribution of the species documented.
- A short report describing methods and findings with photo-documentation, and identification of avoidance, minimization, and suggested mitigation measures that could be employed in the project corridor if needed.
- GPS shapefiles of isolated occurrences of high-impact invasive species will be delivered at the end of the project period.

Location: This project will be conducted in Lansing and in Barry County.

Reporting:

Short interim reports will be submitted and discussed with the MDOT sponsor after each survey. We will review progress on the project for each time period and deliver shapefiles (point, lines, polygons) of any target species documented. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be provided by December 31, 2023.

12. Project 76899 – US-24 from Carter to Pennsylvania

1. Prepare field forms and GPS data layers and plan survey route. (April-June 2023)

Review aerial photos, maps, and delineated stretches of road right-of-way, stream crossings, bridge crossings, railroad ROWs, and any other areas requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct mid and late-season field surveys and map occurrences of State and Federally listed and State Special Concern invertebrates in survey area. (July-August 2023)

Surveys will target the species noted below during their optimal detection periods. Any additional rare species not listed below that are observed during any survey period will also be mapped.

Mid Season	Status	Mid/late-Season	Status
<i>Bombus pennsylvanicus</i>	E	<i>Duphyes dukesi</i>	T
		<i>Flexamia reflexa</i>	T
		<i>Limotettix elegans</i>	SC

Surveys will be conducted by sweep netting and visual surveys, focusing on suitable habitat and host plants for the target species. The surveyor will park at a good access point and sweep net at sample sites with suitable habitat within the right of way on both sides of the road, collecting representative samples in kill jars to determine identification back in the laboratory; then move on to the next area and repeat. Exact number of sample sites will vary based upon survey request, site-specific conditions, and accessibility. If rare invertebrate occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet, GIS application on a smartphone, or Garmin GPS unit and MNFI rare species forms and documentation will be recorded.

3. Collect data for state listed invertebrates for permitting purposes, where impacts are anticipated. (July-August 2023)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small groups of invertebrates will be marked with points, linear occurrences will be marked with lines, and large populations will be documented with polygons. Site descriptions will also be recorded, including the vegetation community type, condition of the listed species, major associated species, current threats, and anticipated impacts of project implementation.

4. Sort and identify field-collected specimens in laboratory. (August-October 2023)

Specimens collected in kill jars at sample locations will be taken back to the laboratory, sorted, and identified to species when possible. Positive identifications of state listed invertebrates from field samples will be quantified, their condition and life cycle stage assessed, and their geography assigned to the survey transect from which the kill jar's contents came.

5. Inform MDOT immediately if any State or Federally listed species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (June-September 2023)

Surveyors will report any newly documented occurrences of State or Federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found or identified in the lab, along with the shapefiles and associated data collected in item 3 above. This will

be done via a brief summary report emailed to the Project PI, with shapefiles attached after each survey period. The PI will save them to the MNFI share drive and forward them on to MDOT. *All correspondence will include the Project Job Number.*

6. Prepare and deliver report of survey corridor and rare invertebrate occurrences documented to MDOT. (October-December 2023)

MNFI will prepare a short final report summarizing survey results with ample photo-documentation.

7. Transcribe relevant rare species data into Michigan’s Natural Heritage Database. (October-December 2023)

MNFI will update the Database with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Fieldwork will be conducted in July-August, labwork in August-October, with final products delivered by December 31, 2023. Dates for completing each objective are noted above.

Deliverables, Products, and Annual Milestones:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of documented Threatened, Endangered, or Special Concern species delivered immediately after surveys. These will include point, lines and polygons as determined by the amount and distribution of the species documented.
- A short report describing methods and findings with photo-documentation, and identification of avoidance, minimization, and suggested mitigation measures that could be employed in the project corridor if needed

Location: This project will be conducted in Lansing and in Wayne County.

Reporting:

Short interim reports will be submitted and discussed with the MDOT sponsor after each survey. We will review progress on the project for each time period and deliver shapefiles (point, lines, polygons) of any target species documented. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be provided by December 31, 2023.



**STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES**

Department of Technology, Management, and Budget
320 S. WALNUT ST., LANSING, MICHIGAN 48933
P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **15**
to
Contract Number **180000000169**

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs , 426 Auditorium Rd, Roo
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
	Contract Administrator	Jordana Sager	DTMB
		(517) 896-1903 sagerj2@michigan.gov	

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2024
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$13,813,750.45	\$0.00	\$13,813,750.45		

DESCRIPTION

Effective October 1, 2023, the pricing on this contract is hereby revised per the attached Schedule B - Pricing.

All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

Schedule B - Pricing

MNFI - MSU Salary Rates for 10/1/2023 thru 9/30/2024			
MSU Employee	Status	Burdened S/F Hourly Rate (\$)	S/F Rate Plus 26% Indirect (\$)
Adkins, Ashley	Staff (Advanced)	48.47	61.07
Badra, Pete	Senior Conservation Scientist (Advanced)	56.37	71.02
Bassett, Tyler	Conservation Associate (Entry)	50.82	64.04
Branch, Eric	Staff (Entry)	41.46	52.24
Carter, Sarah	Staff (Entry)	40.39	50.89
Cohen, Josh	Senior Conservation Scientist (Advanced)	63.90	80.51
Cole-Wick, Ashley	Conservation Associate (Entry)	50.13	63.16
Cuthrell, Dave	Senior Conservation Scientist (Advanced)	63.07	79.47
Earl, Dan	Staff (Entry)	41.46	52.24
Elgin, Erick	Extension Educator	53.83	67.82
Enander, Helen	Staff (Advanced)	55.09	69.41
Haber, Elizabeth	Conservation Associate (Entry)	50.12	63.16
Hackett, Rachel	Conservation Associate (Entry)	50.67	63.84
Korroch, Kraig	Staff (Intermediate)	52.99	66.77
Kortenhoven, Aaron	Conservation Associate (Entry)	49.00	61.75
Lee, Yu Man	Conservation Scientist (Intermediate)	64.71	81.54
Lincoln, Jesse	Conservation Scientist (Intermediate)	50.51	63.64
McLaughlin, Julie	Staff (Entry)	41.46	52.24
Monfils, Mike	Senior Conservation Scientist (Advanced)	71.04	89.51
Ng, Amber	Staff (Entry)	41.46	52.24
Richardson, Deb	Professional Aide	50.15	63.19
Rogers, Becca	Staff (Advanced)	59.98	75.58
Ross, Courtney	Staff (Entry)	42.01	52.94
Rowe, Logan	Conservation Associate (Entry)	50.52	63.65
Sanders, Mike	Staff (Intermediate)	48.56	61.19
Schilke, Paul	Conservation Associate (Entry)	47.86	60.30
Smith, Danielle	Staff (Entry)	41.46	52.24
Smith, Nicole	Staff (Intermediate)	51.54	64.94
Scott, Warner	Conservation Associate (Entry)	49.93	62.91
Wilton, Clay	Conservation Associate (Entry)	50.33	63.42

Schedule B - Pricing

MNFI - MSU Salary Rates for 10/1/2023 thru 9/30/2024 Cont'd.			
MSU Employee	Status	Burdened S/F Hourly Rate (\$)	S/F Rate Plus 26% Indirect (\$)
In those cases where specific MSU staff or seasonal employees have not been identified at the time of project scoping, the following rates will be used (based on averages of existing staff).			
	Conservation Associate (Entry)	52.94	66.70
	Conservation Scientist (Intermediate)	59.72	75.25
	Senior Conservation Scientist (Advanced)	65.70	82.78
	Staff (Advanced)	58.72	73.98
	Staff (Entry)	44.69	56.31
	Staff (Intermediate)	55.83	70.35
	Extension Educator	56.84	71.61
	Professional Aide	53.16	66.98
	Seasonal Botanist	28.83	36.32
	Seasonal Ecologist	28.83	36.32
	Seasonal Zoologist	28.83	36.32

“The hourly rates are being provided for informational and comparison purposes only. MSU does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students, but rather maintains documentation to support time expended on federally sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB 2 CFR Part 200- Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.”



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 320 S. WALNUT ST., LANSING, MICHIGAN 48933
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **14**
 to
 Contract Number **180000000169**

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs , 426 Auditorium Rd, Roo
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
	Contract Administrator	Jordana Sager (517) 896-1903 sagerj2@michigan.gov	DTMB

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2023

PAYMENT TERMS	DELIVERY TIMEFRAME
Net 45	N/A

ALTERNATE PAYMENT OPTIONS	EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS
 N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input checked="" type="checkbox"/>	1 year	<input type="checkbox"/>		December 18, 2024
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$12,013,750.45	\$1,800,000.00	\$13,813,750.45		

DESCRIPTION

Effective April 25, 2023, this contract is hereby exercising the 1 option year and is increased by \$1,800,000.00 for DNR. The revised contract expiration date is December 18, 2024.

All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement, DTMB Central Procurement approval, and State Administrative Board approval on April 25, 2023.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

All of the costs association with each of the titles described in the above work plan are eligible for reimbursement through federal awards received by the Department and administered by the US Fish and Wildlife Service (US FWS). Through this agreement, some of these costs are being used by the Department to satisfy the non-federal match portion of these federal awards. As a vendor for this contract, MNFI and Michigan State University are not sub recipients of these federal awards and are not subject to the terms in these federal awards. MNFI and MSU, however, may not use those portions of the costs in these work plans the Department is using as non-federal match as non-federal match for any federal award MNFI and MSU may have. The portion of costs for each work plan the Department is using as non-federal match and the federal award to which this match is applied are summarized as follows:

Title (#)	Costs used as Non-federal Match	Federal Award Name	Sponsor	Requested Funds
1.	Indirect Cost (Rate: 26%)	State Wildlife Grant WI: \$99,984.16	Mike Donovan	\$384,208.32
2.	Indirect Cost (Rate: 26%)	Federal Aid in Wildlife Restoration WI: \$68,029.48	Mike Donovan	\$261,651.85
3.	Indirect Cost (Rate: 26%)	Federal Aid in Wildlife Restoration WI: \$11,237.01	Mike Donovan	\$43,219.28
5.	Indirect Cost (Rate: 26%)	Competitive State Wildlife Grant WI: \$24,049.56 / CS: \$26,068.50	Tony Henenhan	\$80,760.00
8.	Indirect Cost (Rate: 26%)	Forest Resources Division WI: \$6,500.34	Keith Kintigh David Price	\$25,000.13
10.	Indirect Cost (Rate: 26%)	Parks & Recreation Division WI: \$23,400.10	Greg Norword Ray Fahlsing	\$90,000.39
11.	Indirect Cost (Rate: 26%)	Forest Resources Division WI: \$3,150.11	Derek Cross	\$12,115.79
12.	Indirect Cost (Rate: 26%)	EPA Grant WI: \$15,149.63	Mike Parker	\$58,267.82
14.	Indirect Cost (Rate: 26%)	Forest Resources Division WI: \$45,537.87	David Price Derek Cross	\$175,145.67
17.	Indirect Cost (Rate: 26%)	Forest Resources Division WI: 7,800.00	Derek Cross	\$30,000.00
19.	Indirect Cost (Rate 26%)	America The Beautiful (applied for) WI: \$39,333.25	Christopher Hoving	\$151,281.74

22.	Indirect Cost (Rate: 26%)	Parks and Recreation WI: \$8,731.67	Greg Norwood	\$33,583.41
24.	Indirect Cost (Rate: 26%)	Competitive State Wildlife Grant WI: \$26,757.46	Tony Henehan	\$101,833.30
25.	Indirect Cost (Rate: 26%)	Forest Resources Division WI: \$13,000	Derek Cross	\$50,000.00
26.	Indirect Cost (Rate: 26%)	State Wildlife Grant WI: \$10,122.41	Tony Henehan	\$38,932.33
27.	Indirect Cost (Rate: 26%)	Endangered Species Grant WI: \$14,844	Mark Mills, Jennifer Kleitch	\$57,095.00
28.	Indirect Cost (Rate: 26%)	America the Beautiful (Applied for) WI: \$8,731.67	Jared Duquette	\$39,025.00
29	Indirect Cost (Rate: 26%)	DNR Wildlife Division Module for Environmental Review Tool WI: \$20,657.85	Mike Donovan, Amy Derosier	\$79,453.29



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 320 S. WALNUT ST., LANSING, MICHIGAN 48933
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number 13
 to
 Contract Number 18000000169

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs , 426 Auditorium Rd, Roo
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
STATE	Contract Administrator	Jordana Sager	DTMB
		(517) 896-1903	
		sagerj2@michigan.gov	

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2023
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$11,832,157.48	\$181,592.97	\$12,013,750.45		

DESCRIPTION

Effective March 29, 2023, the attached Schedule A - Statement of Work for NEPA assistance is hereby added to the Contract and is increased by \$181,592.97 for MDOT.

All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

MNFI Work Plan for State of Michigan

Title:	Support of MDOT NEPA Planning Activities		
Principal Investigator(s):	Brian Klatt		
Sponsor:	Mike O'Malley		
Project Beginning Date:	1 October 2022	Project End Date:	30 September 2023
Budget Request for Each Fiscal Year of Project:	\$181,592.97		
Statement of Needs:			
<p>The Michigan Department of Transportation (MDOT) is responsible for planning, maintenance, and expansion of the State of Michigan transportation infrastructure. As part of their planning processes, as required by law, MDOT considers potential impacts to state and federal threatened and endangered species, as well as the environment more broadly. With an influx in funding and accelerated project schedules, MDOT is looking for assistance in completing MDOT's T/E species program requirements.</p>			
Objective:			
<p>Create time for MDOT's T/E staff to be available for high priority work tasks, policy and program level responsibilities and other challenges as they arise by providing assistance in meeting MDOT's National Environmental Policy Act obligations, especially with respect to threatened and endangered species.</p>			
Expected Benefits:			
<ol style="list-style-type: none"> 1. Create time for MDOT's T/E staff to be available for high priority work tasks, policy and program level responsibilities and other challenges as they arise. 2. Obtain expanded/enhanced expertise in the identification of MDOT properties with high conservation value. 3. Utilize MNFI's deep knowledge of Michigan's natural communities to develop management plans for any high-quality habitats on MDOT ROW. 			
Work Plan/Approach:			
<p>Because of the wide variety and dynamic nature of T/E species environmental clearance activities, MDOT is requesting assistance from MNFI to complete these tasks. MNFI will commit a total of 2080 hours of personnel time distributed across a variety of taxonomic and activity areas. The exact effort within the categories will be determined/negotiated with MDOT as they become better defined. Based on information provided by MDOT, the following activities and estimated quantities of time to complete them is listed below.</p>			

1. Project Analysis

- Assist MDOT in early scoping for the Regions for a limited number of projects and complete the scoping template for region review.
 - 30-50 projects per year, desktop review Medium priority
 - These typically take 1-2 hours each to complete Avg Hrs. 60
 - Scoping projects will include analyzing a project location and the proposed scope of work against known T/E species. The goal is to be able to provide direction to the Project Manager regarding if field surveys are needed, environmental clearance timelines, budget, and potential for delays. This information is used to prioritize projects at the region level based on the specialist comments from the ESS. The deliverable will be a short report detailing the concerns above along with concerns and suggested avoidance, minimization, and/or mitigation strategies.

Year 1- Get familiar with scoping template format and how to complete the questions/synthesize information based on the desktop review.

- Assist MDOT in completing a GIS based 5-year plan review for MDOT projects, provide early scoping and prioritization for projects with potential T/E species concerns five years in advance of construction using Ed Schools previous GIS model and ranking system. Using MDOT's 5-year plan GIS layer, MNFI will perform an initial screening of all projects proposed within the next five years. The goal is to determine what projects are likely to have endangered species concerns based on suitable habitat, connectivity/species proximity and individual EO data, field survey requirements and identifying general avoidance or minimization measures to advance projects within the quickest timeline.
 - Completed once per year (January) Low priority
 - 3-5 days per year for GIS staff Avg Hrs. 40

Year 1- Review 5-year plan GIS file, get familiar with basic notation/terminology in attribute table such as work types, bridge IDs, etc. Complete one 5-year plan analysis in 2023.

- Assist MDOT in providing analysis on major actions documents including systems-level planning documents (PEL), design builds, environmental assessments, and environmental impact statements. This includes collection of baseline environmental data for the project corridor, analysis of effects of the proposed project scope and determining a environmental clearance path. This could include habitat suitability assessments and/or field surveys to determine the presence of species, impact analysis, MDNR permitting and drafting major action documents for the MDOT specialists to review.
 - 3-5 projects per year Medium priority
 - Varies considerably Avg Hrs. 100's

Year 1- Learn different classes of major action documents and assist in the review (desktop and/or field) of several PEL, DB, EAs, and EISs.

2. Field Surveys

- Assist MDOT in assembling field survey scopes and packages (pre-survey) for field surveys performed by MDOT, MNFI, or consultants. This involves compiling information about site conditions, corridor mapping, identifying target species for surveys, species ecology, survey methods and seasonal timing. Deliverables will be in the form of species abstracts, maps, and written reports that will be used in the field when completing surveys.
 - 30-35 projects per year Medium priority
 - 3 hours per project Avg Hrs. 100**Year 1- Offer guidance on survey methodology, species ecology, species sensitivities, and share data and knowledge of areas in which MNFI has previously worked and is familiar with.**

- Complete desktop habitat suitability assessments for certain projects to determine if species specific field surveys are required. Habitat suitability assessments will be performed using MNFI species occurrence data, internal MDOT data and other external datasets or protocols to determine if suitable habitat is present within project corridors and if surveys will be required.
 - 5-10 projects (flora/fauna) per year High priority
 - 5-10 hours per project Avg Hrs. 80**Year 1- Get familiar with all the datasets available for desktop analysis and triggers that elevate projects for HAS's or field surveys.**

- Provide invasive species mapping within MDOT ROW for projects as needed. This involves collecting data and documenting invasive species found in the ROW and placing this data into MDOT's Invasives Arc GIS Online application. This database shows the location, species name, approximate size, density, and adjoining landowner comments. This information can be used to eradicate species prior to construction and can also be ranked for our maintenance staff to prioritize treatments within MDOT's ROW.
 - 3-5 projects per year Low priority
 - One day per project Avg Hrs. 40**Year 1- Learn about MDOT ArcGIS online system and any nuances needed to collect/add information to the system.**

- Complete wildlife field surveys as required
 - 5-10 projects per year High priority
 - Average 10-30 hours per project Avg Hrs. 200**Year 1- Get familiar with regulatory survey protocol if not already – there may be some differences with certain species in how to perform a survey acceptable to a regulatory agency vs. research survey aimed at answering certain questions.**

3. Construction and Maintenance Permitting and Compliance

- Assist MDOT in preparing MDNR endangered species permit applications for construction and maintenance projects

- 3-5 projects per year
- 25 hours per project

High priority
Avg Hrs. 100

Year 1- Get familiar with assembling permit applications for MDOT if not already. Since MNFI staff have experience in reviewing permit applications for MDNR this activity may be fully realized in year 1.

- Assist MDOT by drafting MDNR endangered species permits for project specific impacts. This will be a team effort as we look at avoidance and minimization strategies to lessen impacts. MDOT can provide additional examples of the permit applications however, MNFI has reviewed several of these in the past for MDNR prior to them issuing MDOT permits. Most of this work will be for plant impacts.

Year 1- Provide guidance on species specific needs and work collaboratively with MDOT to develop strategies to avoid, minimize, and mitigate impacts to listed species.

- Assist MDOT in USFWS Formal Section 7 Consultations for construction and maintenance projects. This involves completing environmental baseline research, coordination with MDOT staff, evaluating effects of project actions and development of minimization and mitigation strategies. Writing of Biological Assessments will be completed either jointly with MDOT or independently with deliverables submitted to and reviewed by MDOT Environmental Section staff on a situational basis.

Year 1- Look over FWS BA template and review a couple BAs MDOT has submitted in the past. Review a couple BOs. Assist in the writing of one BA in 2023.

- 1-3 projects per year
- 80 hours per project

High priority
Avg Hrs. 200

- Assist with year-end compliance reporting for MDOT with the MDNR and coordinate yearly T/E database transfer. MNFI will coordinate with MDOT to combine survey data into a GIS file to submit to MDNR to complete MDOT's year-end scientific collectors permit reporting.

- Occurs once per year (March)
- 5 days per year

Low priority
Avg Hrs. 40

Year 1- Work with Kelsey to learn how MDOT stores data and the different datasets (protected areas, mussels, etc.) we have. Work out a system in which data can be easily shared between MDNR, MNFI, and MDOT.

4. Habitat Management and Endangered Species Protection

- Assist in the development of management plans for MDOT ROW for specific plant communities or individual flora or fauna species. This includes providing species and habitat management recommendations and writing programmatic agreements for the management of listed species within MDOT ROW. This task will be performed either jointly with MDOT or independently with deliverables submitted to and reviewed by MDOT Environmental Section staff on a situational basis.

- Five per year

Low priority

- 25 hours per plan

Avg Hrs. 125

Year 1- Review habitat management plans and/or programmatic agreements from other states. Work with MDOT staff to understand current programmatic agreements.

- Develop and/or update species abstracts with priority given to those rare species that are most likely to be affected by transportation projects.

- 4 per year?

Low priority

- 20 hours per abstract

Avg Hrs. 80

Year 1- Complete three Abstracts for selected species.

- Assist MDOT in the development of a stewardship agreement that would allow maintenance and management activities within Protected Areas containing state listed plant/animal species. This includes providing management recommendations, species status information and writing programmatic agreements for the management of species within MDOT ROW. The goal is to provide a safe highway system that is also beneficial for species recovery while being easy to implement by regional maintenance staff. MDOT staff will work jointly with MNFI in the development of these management plans.

- One time project

Low priority

- Several hundred hours if there is free time available

Avg Hrs. 200

Year 1- Provide guidance on species ecology and comments on MDOT proposed ROW management activities.

- Facilitate MDOT's participation in existing and future Habitat Conservation Plans and programmatic agreements. MNFI will advise MDOT on the availability and need for existing and future HCPs, assist in analysis of the effects of inclusion on MDOT's system, development of best management practices and the effects to the species, and writing these plans and agreements either jointly with MDOT or independently with deliverables submitted to and reviewed by MDOT Environmental Section staff.

- One per year

Low priority

- Several weeks of writing/research

Avg Hrs. 100

Year 1 – Learn about MDOT's program and inform MDOT of existing plans.

- Partner with MDOT and the USFWS T/E liaison position to develop endangered species protection and mussel mitigation strategies (Ex. payment in lieu, developing candidate relocation sites, re-introduction/propagation strategies). MNFI will utilize subject matter expert knowledge to develop strategies to manage endangered species concerns on a program level. This will involve regular communication with MDOT Environmental Section staff and USFWS, research into species ecology and existing strategies utilized by other states, writing agreements and reports, site visits to determine suitable relocation sites for mussels and other duties necessary for the development of endangered species protection programs and Endangered Species Act compliance streamlining for the Department.

- One project per year Low priority
- Several weeks of writing/research Avg Hrs. 100

Year 1 – Learn about the strategies MDOT has in place and review strategies that may be used in other states.

Timeline/Project Work Period:

Work will continue throughout the project period of 1 October 2022 through 30 September 2023.

Deliverables, Products, and Annual Milestones:

Deliverables and products that will result from this project will be those identified in the above list of activities and may include analyses, maps, plant lists, input for NEPA documents, delineation reports, and conservation plans and recommendations.

Location:

The work will be conducted in the MNFI offices located in Constitution Hall, the campus of Michigan State University, and locations statewide.

Reporting:

Meeting notes and action items resulting from monthly, or as-needed, project review meetings.

Budget: FY23

	Cost Category	Cost
	Personnel	\$130,621.41
	Travel	\$13,500.00
	Supplies	\$0.00
	Indirect Cost (Rate: 26%)	\$37,471.57
	Total Project Amount:	\$181,592.97
	Contract Type/Payments: This is a fixed-price contract.	



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 320 S. WALNUT ST., LANSING, MICHIGAN 48933
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number 12
 to
 Contract Number 180000000169

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs , 426 Auditorium Rd, Roo
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
Contract Administrator	Jordana Sager	DTMB	
	(517) 896-1903		
	sagerj2@michigan.gov		

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2023

PAYMENT TERMS	DELIVERY TIMEFRAME
Net 45	N/A

ALTERNATE PAYMENT OPTIONS	EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		N/A

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE
\$11,832,157.48	\$0.00	\$11,832,157.48

DESCRIPTION

Effective February 10, 2023, this contract is hereby amended per the following:
 Of the Standard Contract Terms, Section 8. Extended Purchasing Program is no longer applicable and is reserved.
 All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 320 S. WALNUT ST., LANSING, MICHIGAN 48933
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number 11
 to
 Contract Number 180000000169

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs , 426 Auditorium Rd, Roo
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
STATE	Contract Administrator	Jordana Sager	DTMB
		(517) 896-1903	
		sagerj2@michigan.gov	

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2023
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$11,816,127.52	\$16,029.96	\$11,832,157.48		

DESCRIPTION

12/19/22, the attached Schedule A - Statement of Work for MDOT hereby added and increased by \$16,029.96.
 All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Amy Derosier	517-284-6166	derosiera@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

Title:	MDOT Rare Plant Surveys 2022 Add-On		
MDOT Projects:	210063, 215063, 208481		
Principal Investigator:	Phyllis Higman, Michigan Natural Features Inventory (MNFI)		
Sponsor:	Dave Schuen, Michigan Department of Transportation (MDOT)		
Project Beginning Date:	July 25, 2022	Project End Date:	Dec. 31, 2022
Budget Request for Current Year:	All Projects Combined: \$16,029.96		
Statement of Need:			
Services are requested to complete rare plant species surveys or other activities as noted for the projects listed below.			

<ol style="list-style-type: none"> 1. Project 120063 – M-37 from south of 92nd St. north to Kraft Ave, Caledonia Twp, Kent County: Surveys are required along M-37 from Emmons St. SE to Kraft Ave., approximately 3/4 mile along 76th St. SE and 84th St. SE where they intersect M-37, and approximately 1/2 mile along Cherry Valley Ave. north from M-37 across 84th St. SE. A full environmental assessment including spring, summer, and fall surveys is required, prior to road work. 2. Project 215063 – I-75 NB and SB over Cheeseman Rd. in Mackinac County: Surveys are required along I-75 from Watertower Rd. north to the southern end of Rest Area 241, and approximately 1/3 mile from 970 Cheeseman Rd. east-northeast under the I-75 Bridge and St. Ignace to Trout Lake Trail parallel to Cheeseman Rd., prior to road work. 3. Project 208481 – Reconstruction of M-14/I-96 from Sheldon Rd. to Newburgh Rd., Wayne County: Surveys are required along M-96 from Sheldon Rd. to Newburgh Rd. and the entire I-96 and I-275 interchange extending from the railroad tracks just south of Schoolcraft St. to five-mile Rd., prior to road work. 			
Expected Benefits:			
This work fulfills regulatory compliance for the state and federal Endangered species acts with the MDNR and USFWS in order to obtain federal funding from FHWA for the transportation projects noted above. Our goal is to assist MDOT in the delivery of the Rebuilding Michigan Program set forth by the Governor. This work will provide baseline data for MDNR permitting and Section 7 consultation if required and strengthen the relationship between the Michigan Natural Features Inventory (MNFI) and the Michigan Department of Transportation (MDOT). MNFI has many years of experience working with Michigan’s most vulnerable species and MDOT has many years of experience identifying and mitigating impacts anticipated from road construction activities to these vulnerable species. This work will also enhance Michigan’s Natural Heritage database by capturing rare species occurrence data that are documented during surveys.			
Objectives Work Plan/Approach			
The specific objectives, work plan, and timeline are described separately for each project in the following pages. The total budget for all of the projects combined is presented below.			

Timeline

All surveys will be conducted between July and October 2022. Shapefiles of rare species will be delivered to MDOT with a brief narrative via email right after their documentation for each survey period for each project. Specific timelines are provided separately for each project in the following pages. Final reports for each project will be delivered by December 31, 2022.

Location

The projects are located in Kent, Mackinac, and Wayne County as detailed above.

Deliverables

- Shapefiles for target species documented will be delivered after each survey for each project, as detailed in the following pages.
- All final reports will be delivered by December 31, 2022.

Budget: Costs are separated out for FY 1 (July-Sept), FY 2 (Oct-Dec) and overall project total. Subtotals for each project are shown in the following pages.

Contract Type/Payments: This is a fixed price contract.

Costs are combined totals for all ten projects for each category

	Task or Direct Cost Category	Year 1	Year 2	Year 1 and 2
	Personnel	6,162.28	5,567.66	11,729.94
	Travel	909.76	82.50	992.26
	Supplies	--	--	--
	Indirect Cost (Rate: 26%)	1,838.72	1,469.04	3,307.76
	Budget Total:	8,910.76	7,119.20	16,029.96

Project 210063: M-37 from south of 92nd St. north to Kraft Ave.

1. Prepare field forms and GPS data layers, and plan survey route. (July 2022)

Review aerial photos, maps, and delineated stretches of highway right-of-way requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct mid and late-season field surveys and map occurrences of state and federally listed and state Special Concern plants in survey area. (July-October)

Surveys will target the species noted below during their optimal detection periods. If any targets are observed earlier than their optimal survey window, they will be marked and resurveyed during later surveys. Any additional rare species not listed below that are observed during any survey period, will also be mapped.

Mid-season surveys will be conducted in July and focus on green violet (*Hybanthus concolor*) and broad-leaved puccoon (*Lithospermum latifolium*). Late-season surveys will be conducted in early September and will focus on Virginia snakeroot (*Endodeca serpentaria*) and goldenseal (*Hydrastis canadensis*). These surveys will determine whether early season surveys are needed, which, if needed, will be conducted in 2023.

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way for one or more miles in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request and site-specific conditions and accessibility. At interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet or Garmin GPS unit and MNFI rare plant forms and documentation will be recorded.

3. Collect data for state listed plants for permitting purposes, where impacts are anticipated. (July-September 2022)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the listed species, dominant associated species, current threats, and anticipated impacts of project implementation.

4. Inform MDOT immediately if any state or federally listed species are observed in survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (July-September 2022)

Surveyors will report any newly documented occurrences of state or federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along with the shapefiles the species, and number of plants at each location. This will be done by a brief summary e-mail to the Project PI, with shapefiles attached after each survey period. *All correspondence will include the Project Number.* The PI will save them to the MNFI share drive and forward them on to MDOT.

5. Prepare and deliver report of the survey corridor and rare plant occurrences documented to MDOT. (October-November 2022)

MNFI will prepare a short final report summarizing survey results with ample photo-documentation.

6. Transcribe relevant rare species data into Biotics. (October-December 2022)

MNFI will update Biotics with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted from July-October 2022 with shapefiles of target species delivered immediately after spring, summer, and fall surveys. Final products delivered to MDOT by December 31, 2022. Dates for conducting each specific task are noted by objective above.

Deliverables:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of documented Threatened, Endangered, or Special Concern species delivered after 2) summer surveys and 3) fall surveys. These will include point, lines and polygons as determined by the amount and distribution of the species documented.
- A short report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed.

Location: This project will be conducted in Lansing and Kent County.

Reporting:

Check-ins with the MDOT sponsor will occur as needed. We will review progress on the project and deliver shapefiles (point, lines, polygons) of any target species documented after each survey period. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be provided by December 31, 2022.

Budget Subtotal.....\$5,704.10

Project 215063: I-75 NB and SB over Cheeseman Rd.

1. Prepare field forms and GPS data layers and plan survey route. (July 2022)

Review aerial photos, maps, and delineated stretches of highway right-of-way requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct early, mid, and late-season field surveys and map occurrences of State and Federally listed and State Special Concern plants in survey area. (July 2022)

Surveys will target the species noted below during their optimal detection periods. Any additional rare species not listed below that are observed during any survey period, will also be mapped.

Surveys will be conducted in late July and will focus on pine drops (*Pterospora andromedea*) and prairie golden Alexanders (*Zizia aptera*).

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way for one or more miles in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request and site-specific conditions and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet or Garmin GPS unit and MNFI rare plant forms and documentation will be recorded.

3. Collect data for state listed plants for permitting purposes, where impacts are anticipated. (July-September 2022)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the listed species, dominant associated species, current threats, and anticipated impacts of project implementation.

4. Inform MDOT immediately if any state or federally listed species are observed in the survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (July-September 2022)

Surveyor will report any newly documented occurrences of State or Federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along with the shapefiles, the species, and number of plants at each location. This will be done by a brief summary e-mail to the Project PI, with shapefiles attached after each survey period. *All correspondence will include the Project Number.* The PI will save them to the MNFI share drive and forward them on to MDOT.

5. Prepare and deliver report of the survey corridor and rare plant occurrences documented to MDOT. (October-November 2022)

MNFI will prepare a short final report summarizing survey results with ample photo-documentation.

6. Transcribe relevant rare species data into Biotics. (October-December 2022)

MNFI will update Biotics with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

Timeline:

Field work will be conducted from July-October 2022 with shapefiles of target species delivered immediately after summer surveys. Final products delivered to MDOT by December 31, 2022. Dates for conducting each specific task are noted by objective above.

Deliverables:

MNFI will deliver the following to MDOT:

- GPS shapefiles of the distribution of documented Threatened, Endangered, or Special Concern species. These will include point, lines, and/or polygons as determined by the amount and distribution of the species documented.
- A short report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed.

Location: This project will be conducted in Lansing and Mackinac County.

Reporting:

Check-ins with the MDOT sponsor will occur as needed. We will review progress on the project and deliver shapefiles (point, lines, polygons) of any target species documented. The final report will be provided by December 31, 2022.

Budget Subtotal.....\$5,279.12

Project 208408: Reconstruction of M-14/I-96 from Sheldon Rd. to Newburgh Rd

1. Prepare field forms and GPS data layers and plan survey route. (August 2022)

Review aerial photos, maps, and delineated stretches of highway right-of-way requiring survey. Upload pertinent data layers to Samsung tablet and/or Garmin GPS Unit.

2. Conduct late-season field surveys and map occurrences of State and Federally listed and State Special Concern plants in survey area. (August 2022)

Surveys will target the species noted below during their optimal detection periods. Any additional rare species not listed below that are observed will also be mapped.

Surveys will be conducted in late August or early September and will focus on compass plant (*Silphium laciniatum*; T) and cup plant (*Silphium perfoliatum*; T).

Surveys will be conducted by meander-survey along each side of the road, or within a specified polygon, focusing on suitable habitat for the target species. The surveyor will park at a good access point and meander the right-of-way for one or more miles in one direction, then meander the other side back to the vehicle; then move on to the next area and repeat. Exact distances will vary based upon survey request, site-specific conditions, and accessibility. At the interchanges, the vehicle will be parked, and the surveyor will meander the designated survey area and return to the vehicle. If rare plant occurrences are found, they will be marked with GPS points, lines, or polygons using a Samsung tablet or Garmin GPS unit and MNFI rare plant forms and documentation will be recorded.

3. Collect data for state listed plants for permitting purposes, where impacts are anticipated. (August-September 2022)

GPS points, lines, and/or polygons will be captured for any occurrences observed and the number of individuals per point, line or polygon will be recorded. Individual or small clumps of plants will be marked with points, linear occurrences will be marked with lines, and large populations will be documented with polygons. Site descriptions will also be recorded, including the community type, condition of the listed species, dominant associated species, current threats, and anticipated impacts of project implementation.

4. Inform MDOT immediately if any State or Federally listed species are observed in the survey area and collect appropriate data for NEPA purposes where impacts are anticipated. (August-September 2022)

Surveyors will report any newly documented occurrences of State or Federally Endangered, Threatened or Special Concern species that are observed in the survey area to MDOT when they are found, along with the shapefiles, the species and number of plants for each location. This will be done by a brief summary e-mail to the Project PI, with shapefiles attached after each survey period. *All correspondence will include the Project Number.* The PI will save them to the MNFI share drive and forward them on to MDOT.

5. Prepare and deliver report of survey corridor and rare plant occurrences documented to MDOT. (October-November 2022)

MNFI will prepare a short final report summarizing survey results with ample photo-documentation.

6. Transcribe relevant rare species data into Biotics. (October-December 2022)

MNFI will update Biotics with current data for Threatened, Endangered or Special Concern species that are observed during surveys.

<p>Timeline:</p> <p>Preparation and field work will be conducted during July-October 2022 with shapefiles of target species delivered immediately after surveys. The final report will be delivered to MDOT by December 31, 2022. Dates for conducting each specific task are noted by objective above.</p>
<p>Deliverables, Products, and Annual Milestones:</p> <p>MNFI will deliver the following to MDOT:</p> <ul style="list-style-type: none"> • GPS shapefiles of the distribution of any Threatened, Endangered, or Special Concern species documented immediately after surveys. These will include point, lines, and/or polygons as determined by the amount and distribution of the species documented. • A short report describing methods and findings with photo-documentation and identification of avoidance, minimization and suggested mitigation measures that could be employed in the project corridor if needed.
<p>Location: This project will be conducted in Lansing and in Wayne County.</p>
<p>Reporting:</p> <p>Check-ins with the MDOT sponsor will occur after each survey period. We will review progress on the project and deliver shapefiles (point, lines, polygons) of target species documented. Additional communication via e-mail or phone will be used as needed throughout the project. The final report will be delivered by December 31, 2022.</p>
<p>Budget Subtotal.....\$5,046.74</p>



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 320 S. WALNUT ST., LANSING, MICHIGAN 48933
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **10 - Revised**
 to
 Contract Number **18000000169**

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs , 426 Auditorium Rd, Roo
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
	Contract Administrator	Jordana Sager	DTMB
		517-896-1903	
		sagerj2@michigan.gov	

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2023
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$11,805,049.66	\$11,077.86	\$11,816,127.52		

DESCRIPTION

Effective 10/12/22, this Contract is hereby increased by \$11,077.86 and the attached Schedule A - Statement of Work is added. Please note the Contract Administrator has been changed to Jordana Sager. All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Michael Donovan	517-243-5514	donovanm@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

MNFI Work Plan for State of Michigan

Title:	MDOT Annual Access to Natural Heritage Database		
Principal Investigator(s):	Brian Klatt		
Sponsor:	Mike O'Malley		
Project Beginning Date:	1 October 2022	Project End Date:	30 September 2023
Budget Request for Each Fiscal Year of Project:	\$49,114		
<p>Statement of Needs:</p> <p>The Michigan Department of Transportation (MDOT) is responsible for planning, maintenance and expansion of the State of Michigan transportation infrastructure. As part of their planning processes, as required by law, MDOT considers potential impacts to state and Federal threatened and endangered species, as well as the environment more broadly. To facilitate their commitment to environmental considerations, MDOT is seeking access to the Natural Heritage Database (NHD) to support their programmatic activities. The Michigan Natural Features Inventory (MNFI), of Michigan State University, maintains the NHD as the most comprehensive and reliable database on the location and condition of threatened, endangered, and special concern species, as well as high quality natural communities available for Michigan; access to the NHD information furthers the mission of both MDOT and MNFI.</p>			
<p>Objectives:</p> <p>1. Provide the MDOT access to NHD information products that facilitate MDOT in carrying-out its responsibilities and programmatic activities.</p>			
<p>Expected Benefits:</p> <ol style="list-style-type: none"> 1. By giving MDOT staff direct access to information products it will facilitate the department's environmental planning processes with respect to transportation infrastructure. 2. The availability of the NHD information products greatly contributes to the efficiency and effectiveness of state government by providing a ready information source and tool for the MDOT to carry out its programmatic responsibilities and meet its legal requirements. 3. By having a single source for information on state and Federally-listed threatened and endangered species, as well as high-quality habitats, the MDOT and other state agencies can provide consistent assessments across various aspects of projects and activities. 4. By having a single database platform, the MDOT and other state agencies avoid the substantial costs of maintaining individual, redundant, and potentially conflicting sources of information on rare species and high-quality natural communities. 			

5. This project will contribute to programmatic and administrative support of MNFI as the designated NatureServe network Natural Heritage Program for Michigan. By being a member of the NatureServe network, MNFI helps not only state agencies, but a variety of Federal agencies, businesses, and conservation-related organizations avoid substantial expenses: NatureServe expends approximately \$3.5 million on each upgrade of the Biotics software alone, which is used to maintain the NHD (not counting the effort that goes into populating the databases). These costs are spread across the 83 members of the NatureServe network, lowering the cost to individual states and provinces.

Work Plan/Approach:

- A. Access. MNFI will provide MDOT access to a subset of the MNFI Natural Heritage Database (NHD) as determined by mutual agreement. Said subset is hereinafter referred to as the "MDOT Subset".

Tabular data contained in the NHD, including:

ELCODE - MNFT/NatureServe Element code - example - ABNNM080
EO_NUM - Number assigned to individual occurrences of an element
EO_ID - Unique record identifier
ACREAGE - Number of acres for EO
SNAME - species name
SCOMMNAME - state used common name
SURVEYSTTE - survey site name- example- CALCITE HARBOR BREAKWATER
USESAS - Federal status
SPROT - State protection status
FIRSTOBS - First observation date
LASTOBS - Last observation date
DIRECTIONS - directions to site
EODA TA - other information about the EO
EO RANK - Quality rank for each occurrence
GRANK - Global Ranks
SRANK - State Ranks
ELCAT - Element category, i.e. Animal, Plant, Community, Other
And other fields as needed by the DEQ

Spatial data contained in the MDOT Subset:

- Element occurrences for the state of Michigan as represented in a spatial data format.
- Access to the web database.

B. Limits on Use and Further Distribution

1. To protect rare features from exploitation or destruction, absent a FOIA administrative appeal decision or judicial order to the contrary, including consideration that the NHD has substantial economic value to MNFI and is considered proprietary business information, MDOT will mask either the identity or location of the feature in any products for external use. For example, licensee will identify species by status and category (e.g. "Federally Threatened Animal") or, alternatively, define location only to the section level of the public land survey (PLS) system.

2. MDOT may not edit the original data in the MDOT Subset but may add or delete fields for internal MDOT purposes. When responding to FOIA requests for MNFI data, the MDOT may be required to indicate electronically or in writing the amount of electronic data deleted from each field. MDOT shall notify MNFI of any errors found, new data, or any other needed corrections or modifications to the NHD.
3. MDOT acknowledges that the MNFI data provided are considered commercial and confidential by the Michigan Natural Features Inventory of Michigan State University, a Constituent Member of the NatureServe Network for Michigan, and agrees not to release or distribute the data to parties not covered by this agreement, except with the consent of MNFI or as ordered following an administrative appeal or judicial ruling. MDOT shall take all reasonable precautions to protect and maintain the confidentiality of the data and agrees, to the fullest extent of law, regulations, and case law interpreting such law, to protect the MNFI information from all requests for the data from parties not covered by this work plan. MDOT will notify and consult with MNFI-MSUE in a timely manner regarding any requests for MNFI information under FOIA or via administrative or judicial proceedings. MDOT should limit released information to that contained in MDOT-created or maintained administrative records, as electronic MNFI data are not transferred to MDOT ownership under this agreement.
4. MDOT understands and acknowledges that these data are provided for planning and assessment purposes. This agreement does not necessarily constitute MNFI concurrence with MDOT's interpretation of the data.
5. MDOT may not assign, delegate, sublicense or otherwise transfer NHD data to any other party, except with the prior written consent of MNFI.

C. Acknowledgment

MDOT, when using the MDOT Subset, shall acknowledge the Michigan Natural Features Inventory as the source of the information. MDOT shall print the following or an equivalent statement on any material produced using the MDOT Subset, with the exception of routine correspondence (i.e. permit reviews):

"These data were provided by the Michigan Natural Features Inventory (MNFI) of Michigan State University Extension. These data are not based on a comprehensive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present. In addition, although MNFI maintains high standards of quality control, MNFI makes no warranty as to the fitness of the data for any purpose, nor that the data are necessarily accurate or complete."

MNFI requests copies of any products that are distributed beyond MDOT's internal use with the exception of the above-mentioned routine correspondence.

D. Renewal and Termination of Agreement; Update of Data

1. This agreement will be effective for the period of 1 October 2022 through 30 September 2023, unless terminated. Amendments to this agreement may be proposed at any time by either party and become effective upon written approval of both parties, with the original effective period remaining unaltered.

2. At any time, either party may terminate, without cause, this agreement thirty (30) days after providing written notice to the other party. Further, MNFI may terminate, with written cause, this license immediately upon breach of the terms or conditions of this agreement.
3. Should the agreement be terminated, the licensee will within sixty (60) days of notification either:
 - a. certify that all copies of these data have been destroyed; or
 - b. complete arrangements with MNFI to renew this license

Timeline/Project Work Period:

Work will continue throughout the project period of 1 October 2022 through 30 September 2023.

Deliverables, Products, and Annual Milestones:

Deliverables and products that will result from this project will include the following

1. Information products derived from the NHD and delivered to MDOT will consist of the MDOT Subset in tabular and geospatial form provided as geodatabases or “served out”.

Location: The work will be conducted in the MNFI offices located in Constitution Hall, the campus of Michigan State University, and locations statewide.

Reporting:

None.

Budget: FY23

	Cost Category	Cost
	Access fee as specified in IDC contract # 171 180000000169	\$49,114
	Total Project Amount:	\$49,114

Contract Type/Payments: This is a fixed-price contract.



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 320 S. WALNUT ST., LANSING, MICHIGAN 48933
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **10**
 to
 Contract Number **18000000169**

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs , 426 Auditorium Rd, Roo
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
	Contract Administrator	Jordana Sager	DTMB
		517-896-1903	
		sagerj2@michigan.gov	

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2023
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>		<input type="checkbox"/>		N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$10,055,935.66	\$11,077.86	\$10,067,013.52		

DESCRIPTION

Effective 10/12/22, this Contract is hereby increased by \$11,077.86 and the attached Schedule A - Statement of Work is added. Please note the Contract Administrator has been changed to Jordana Sager. All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Central Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Michael Donovan	517-243-5514	donovanm@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

MNFI Work Plan for State of Michigan

Title:	MDOT Annual Access to Natural Heritage Database		
Principal Investigator(s):	Brian Klatt		
Sponsor:	Mike O'Malley		
Project Beginning Date:	1 October 2022	Project End Date:	30 September 2023
Budget Request for Each Fiscal Year of Project:	\$49,114		
<p>Statement of Needs:</p> <p>The Michigan Department of Transportation (MDOT) is responsible for planning, maintenance and expansion of the State of Michigan transportation infrastructure. As part of their planning processes, as required by law, MDOT considers potential impacts to state and Federal threatened and endangered species, as well as the environment more broadly. To facilitate their commitment to environmental considerations, MDOT is seeking access to the Natural Heritage Database (NHD) to support their programmatic activities. The Michigan Natural Features Inventory (MNFI), of Michigan State University, maintains the NHD as the most comprehensive and reliable database on the location and condition of threatened, endangered, and special concern species, as well as high quality natural communities available for Michigan; access to the NHD information furthers the mission of both MDOT and MNFI.</p>			
<p>Objectives:</p> <p>1. Provide the MDOT access to NHD information products that facilitate MDOT in carrying-out its responsibilities and programmatic activities.</p>			
<p>Expected Benefits:</p> <ol style="list-style-type: none"> 1. By giving MDOT staff direct access to information products it will facilitate the department's environmental planning processes with respect to transportation infrastructure. 2. The availability of the NHD information products greatly contributes to the efficiency and effectiveness of state government by providing a ready information source and tool for the MDOT to carry out its programmatic responsibilities and meet its legal requirements. 3. By having a single source for information on state and Federally-listed threatened and endangered species, as well as high-quality habitats, the MDOT and other state agencies can provide consistent assessments across various aspects of projects and activities. 4. By having a single database platform, the MDOT and other state agencies avoid the substantial costs of maintaining individual, redundant, and potentially conflicting sources of information on rare species and high-quality natural communities. 			

5. This project will contribute to programmatic and administrative support of MNFI as the designated NatureServe network Natural Heritage Program for Michigan. By being a member of the NatureServe network, MNFI helps not only state agencies, but a variety of Federal agencies, businesses, and conservation-related organizations avoid substantial expenses: NatureServe expends approximately \$3.5 million on each upgrade of the Biotics software alone, which is used to maintain the NHD (not counting the effort that goes into populating the databases). These costs are spread across the 83 members of the NatureServe network, lowering the cost to individual states and provinces.

Work Plan/Approach:

- A. Access. MNFI will provide MDOT access to a subset of the MNFI Natural Heritage Database (NHD) as determined by mutual agreement. Said subset is hereinafter referred to as the "MDOT Subset".

Tabular data contained in the NHD, including:

ELCODE - MNFT/NatureServe Element code - example - ABNNM080
EO_NUM - Number assigned to individual occurrences of an element
EO_ID - Unique record identifier
ACREAGE - Number of acres for EO
SNAME - species name
SCOMMNAME - state used common name
SURVEYSTTE - survey site name- example- CALCITE HARBOR BREAKWATER
USESAS - Federal status
SPROT - State protection status
FIRSTOBS - First observation date
LASTOBS - Last observation date
DIRECTIONS - directions to site
EODA TA - other information about the EO
EO RANK - Quality rank for each occurrence
GRANK - Global Ranks
SRANK - State Ranks
ELCAT - Element category, i.e. Animal, Plant, Community, Other
And other fields as needed by the DEQ

Spatial data contained in the MDOT Subset:

- Element occurrences for the state of Michigan as represented in a spatial data format.
- Access to the web database.

B. Limits on Use and Further Distribution

1. To protect rare features from exploitation or destruction, absent a FOIA administrative appeal decision or judicial order to the contrary, including consideration that the NHD has substantial economic value to MNFI and is considered proprietary business information, MDOT will mask either the identity or location of the feature in any products for external use. For example, licensee will identify species by status and category (e.g. "Federally Threatened Animal") or, alternatively, define location only to the section level of the public land survey (PLS) system.

2. MDOT may not edit the original data in the MDOT Subset but may add or delete fields for internal MDOT purposes. When responding to FOIA requests for MNFI data, the MDOT may be required to indicate electronically or in writing the amount of electronic data deleted from each field. MDOT shall notify MNFI of any errors found, new data, or any other needed corrections or modifications to the NHD.
3. MDOT acknowledges that the MNFI data provided are considered commercial and confidential by the Michigan Natural Features Inventory of Michigan State University, a Constituent Member of the NatureServe Network for Michigan, and agrees not to release or distribute the data to parties not covered by this agreement, except with the consent of MNFI or as ordered following an administrative appeal or judicial ruling. MDOT shall take all reasonable precautions to protect and maintain the confidentiality of the data and agrees, to the fullest extent of law, regulations, and case law interpreting such law, to protect the MNFI information from all requests for the data from parties not covered by this work plan. MDOT will notify and consult with MNFI-MSUE in a timely manner regarding any requests for MNFI information under FOIA or via administrative or judicial proceedings. MDOT should limit released information to that contained in MDOT-created or maintained administrative records, as electronic MNFI data are not transferred to MDOT ownership under this agreement.
4. MDOT understands and acknowledges that these data are provided for planning and assessment purposes. This agreement does not necessarily constitute MNFI concurrence with MDOT's interpretation of the data.
5. MDOT may not assign, delegate, sublicense or otherwise transfer NHD data to any other party, except with the prior written consent of MNFI.

C. Acknowledgment

MDOT, when using the MDOT Subset, shall acknowledge the Michigan Natural Features Inventory as the source of the information. MDOT shall print the following or an equivalent statement on any material produced using the MDOT Subset, with the exception of routine correspondence (i.e. permit reviews):

"These data were provided by the Michigan Natural Features Inventory (MNFI) of Michigan State University Extension. These data are not based on a comprehensive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present. In addition, although MNFI maintains high standards of quality control, MNFI makes no warranty as to the fitness of the data for any purpose, nor that the data are necessarily accurate or complete."

MNFI requests copies of any products that are distributed beyond MDOT's internal use with the exception of the above-mentioned routine correspondence.

D. Renewal and Termination of Agreement; Update of Data

1. This agreement will be effective for the period of 1 October 2022 through 30 September 2023, unless terminated. Amendments to this agreement may be proposed at any time by either party and become effective upon written approval of both parties, with the original effective period remaining unaltered.

2. At any time, either party may terminate, without cause, this agreement thirty (30) days after providing written notice to the other party. Further, MNFI may terminate, with written cause, this license immediately upon breach of the terms or conditions of this agreement.
3. Should the agreement be terminated, the licensee will within sixty (60) days of notification either:
 - a. certify that all copies of these data have been destroyed; or
 - b. complete arrangements with MNFI to renew this license

Timeline/Project Work Period:

Work will continue throughout the project period of 1 October 2022 through 30 September 2023.

Deliverables, Products, and Annual Milestones:

Deliverables and products that will result from this project will include the following

1. Information products derived from the NHD and delivered to MDOT will consist of the MDOT Subset in tabular and geospatial form provided as geodatabases or “served out”.

Location: The work will be conducted in the MNFI offices located in Constitution Hall, the campus of Michigan State University, and locations statewide.

Reporting:

None.

Budget: FY23

	Cost Category	Cost
	Access fee as specified in IDC contract # 171 180000000169	\$49,114
	Total Project Amount:	\$49,114

Contract Type/Payments: This is a fixed-price contract.



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 320 S. WALNUT ST., LANSING, MICHIGAN 48933
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **9**
 to
 Contract Number **180000000169**

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs, 426 Auditorium Rd, Rm 2
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
STATE	Contract Administrator	Susan Watt-Smith	DTMB
		(517) 230-0535	
		wattsmiths@michigan.gov	

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2022
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input checked="" type="checkbox"/>	1 Year	<input type="checkbox"/>		December 18, 2023
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$10,055,935.66	\$1,749,114.00	\$11,805,049.66		

DESCRIPTION

Effective 9/13/22, this Contract is exercising the first option year and is increased by \$1,749,114.00 (\$700,000 for DMVA, \$1,000,000 for DNR, and \$49,114.00 for EGLE). The revised contract expiration date is 12/18/23. In addition, effective 10/1/22, pricing on this Contract is updated per revised Schedule B - Pricing.

All other terms, conditions, specifications, and pricing remain the same. Per contractor and agency agreement, DTMB Central Procurement Services approval, and State Administrative Board approval on 9/13/22.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Michael Donovan	517-243-5514	donovanm@michigan.gov
EGL	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

Michigan State University

SCHEDULE B - PRICING

MSU Salary Rates for 10/1/2022 thru 9/30/2023			
MSU Employee	Status	Burdened S/F Hourly Rate (\$)	S/F Rate Plus 26% Indirect (\$)
Adkins, Ashley	Staff (Entry)	\$ 47.31	\$ 59.61
Badra, Pete	Senior Conservation Scientist (Advanced)	\$ 54.54	\$ 68.72
Bassett, Tyler	Conservation Associate (Entry)	\$ 48.07	\$ 60.57
Carter, Sarah	Staff (Entry)	\$ 38.17	\$ 48.09
Cohen, Josh	Senior Conservation Scientist (Advanced)	\$ 61.43	\$ 77.40
Cole-Wick, Ashley	Conservation Associate (Entry)	\$ 46.64	\$ 58.76
Cuthrell, Dave	Senior Conservation Scientist (Advanced)	\$ 62.31	\$ 78.52
Elgin, Erick	Extension Educator	\$ 47.75	\$ 60.16
Enander, Helen	Staff (Advanced)	\$ 55.27	\$ 69.64
Haber, Elizabeth	Conservation Associate (Entry)	\$ 45.08	\$ 56.80
Hackett, Rachel	Conservation Associate (Entry)	\$ 47.67	\$ 60.06
Higman, Phyllis	Senior Conservation Scientist (Advanced)	\$ 72.46	\$ 91.29
Klatt, Brian	Senior Conservation Scientist (Advanced)	\$ 96.87	\$ 122.06
Korroch, Kraig	Staff (Intermediate)	\$ 52.84	\$ 66.57
Kortenhoven, Aaron	Conservation Associate (Entry)	\$ 46.18	\$ 58.19
Lee, Yu Man	Conservation Scientist (Intermediate)	\$ 63.26	\$ 79.71
Lincoln, Jesse	Conservation Scientist (Intermediate)	\$ 47.71	\$ 60.12
Monfils, Mike	Senior Conservation Scientist (Advanced)	\$ 71.34	\$ 89.89
Richardson, Deb	Professional Aide	\$ 50.24	\$ 63.30
Rogers, Becca	Staff (Advanced)	\$ 60.93	\$ 76.77
Ross, Courtney	Staff (Entry)	\$ 38.10	\$ 48.00
Rowe, Logan	Conservation Associate (Entry)	\$ 44.72	\$ 56.35
Sanders, Mike	Staff (Intermediate)	\$ 47.71	\$ 60.11
Scott, Warner	Conservation Associate (Entry)	\$ 47.11	\$ 59.36
Wilton, Clay	Conservation Associate (Entry)	\$ 44.78	\$ 56.42

MSU Salary Rates for 10/1/2022 thru 9/30/2023 Cont'd.			
MSU Employee	Status	Burdened S/F Hourly Rate (\$)	S/F Rate Plus 26% Indirect (\$)
In those cases where specific MSU staff or seasonal employees have not been identified at the time of project scoping, the following rates will be used (based on averages of existing staff).			
	Conservation Associate (Entry)	\$ 49.39	\$ 62.23
	Conservation Scientist (Intermediate)	\$ 59.14	\$ 74.51
	Senior Conservation Scientist (Advanced)	\$ 69.52	\$ 87.60
	Staff (Advanced)	\$ 61.84	\$ 77.91
	Staff (Entry)	\$ 46.74	\$ 58.89
	Staff (Intermediate)	\$ 57.48	\$ 72.42
	Extension Educator	\$ 58.61	\$ 73.85
	Professional Aide	\$ 53.57	\$ 67.50
	Seasonal Botanist	\$ 28.83	\$ 36.32
	Seasonal Ecologist	\$ 28.83	\$ 36.32
	Seasonal Zoologist	\$ 28.83	\$ 36.32

“The hourly rates are being provided for informational and comparison purposes only. MSU does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students, but rather maintains documentation to support time expended on federally sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB 2 CFR Part 200- Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.”



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **8**
 to
 Contract Number **18000000169**

CONTRACTOR	MICHIGAN STATE UNIVERSITY	STATE	Program Manager	Various	MULTI
	Office of Sponsored Programs , 426 Auditorium Road, Ro		Contract Administrator	Courtney Powell	DTMB
	East Lansing, MI 48824			(517) 249-0452	
	Stacy Salisbury			powellc11@michigan.gov	
	517-884-4252				
	awards@cga.msu.edu				
CV0048200					

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2022
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>	N/A	<input type="checkbox"/>	N/A	December 18, 2022
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$10,055,935.66	\$0.00	\$10,055,935.66		

DESCRIPTION

Effective October 1, 2021, the pricing is updated to reflect the new annual hourly rates for fiscal year 2022, please refer to attached updated Schedule B.

All other terms conditions, specifications, and pricing remain the same. Per Contractor and Agency agreement, and DTMB Central Procurement Services approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Michael Donovan	517-243-5514	donovanm@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

STATE OF MICHIGAN

Contract No. 171 180000000169

Change Notice 8

Natural Heritage Conservation Planning Services - Statewide and specifically Michigan Department of Natural Resources (DNR), Michigan Department of Environmental Quality (DEQ), Michigan Department of Transportation (MDOT) and Michigan Department of Military and Veterans Affairs (DMVA)

Revised - SCHEDULE B Effective 10/1/2021 for Fiscal Year (FY) 2022

1. Reserved.
2. Reserved.
3. Pricing must include all costs, including but not limited to, any one-time or set-up charges, fees, and potential costs that Contractor may charge the State (e.g., shipping and handling, per piece pricing, and palletizing).
4. Reserved.
5. Reserved.
6. The Contract pricing is fixed: Fixed Database Access and Fixed Consulting, Data Collection, Monitoring, Field Work, Project Management, Conservation and Planning Services - Staff Hourly Rates per the State's choosing from the tables identified in Section 7 through 9 below.
 - A. A fixed annual price will be used to compensate the Contractor for all services for MDOT and DEQ identified in:
 - Schedule A, Section 1.A General Requirements
 - Schedule A, Section 1.B Database Management and Information Technology
 - Unlimited, State use
 - Schedule A, Section 4. Program Management
 - B. A fixed annual hourly rate will be used to compensate the Contractor for all services for DNR identified in:
 - Schedule A, Section 1.A General Requirements
 - Schedule A, Section 1.C Consulting Services
 - Schedule A, Section 1.D Data Collection, Monitoring, and Field Work
 - Schedule A, Section 1.E Conservation and Planning Services
 - Schedule A, Section 4. Program Management

Updated rates must be submitted to the Program Manager on an annual basis, if applicable, no later than June 1 of each preceding State Fiscal Year, and a Contract Change Notice is required per Standard Contract Terms, Section 53 Contract Modification.

- C. A fixed annual hourly rate will be used to compensate the Contractor for all services for MDOT and DEQ identified in:
 - Schedule A, Section 1.C Consulting Services
 - Schedule A, Section 1.D Data Collection, Monitoring, and Field Work
 - Schedule A, Section 1.E Conservation and Planning Services

Updated rates must be submitted to the Program Manager on an annual basis, if applicable, no later than June 1 of each preceding State Fiscal Year, and a Contract Change Notice is required per Standard Contract Terms, Section 53 Contract Modification.

- D. A fixed not-to-exceed amount will be used to compensate the Contractor for any travel performed under the Contract during the Contract period. The specific value must be identified on each individual Work Plan. If additional funding is needed a Change Notice to the Contract will need to be processed per Standard Contract Terms, Section 53 Contract Modification.

7. Database Access (BIOTICS) for MDOT and DEQ – Firm-Fixed Annual Rate

Years - Term	Annual Maintenance and Hosting Fee	Annual Data Access Fee – Per Agency	1-Year Total – Per Agency	5-Year Total – Per Agency
5 Years: 10/1/17 – 9/30/22 (FY18-FY22)	\$0	\$49,114	\$49,114	\$245,570

8. Database Access, Consulting, Data Collection, Monitoring, Field Work, Program Management, Conservation and Planning Services for DNR - Staff Fixed Annual Hourly Rates

A. Rates for any existing staff

Please Note that MSU waives the indirect rates for DNR projects – Rates for DNR rates are located in the “rate” column in the table below.

MNFI Employee	MNFI Status	Burdened S/F Hourly Rate (\$)	Rate Plus 26% Indirect
Adkins, Ashley	Staff (Entry)	\$40.45	\$50.97
Badra, Pete	Senior Conservation Scientist (Advanced)	\$51.50	\$64.89
Bassett, Tyler	Conservation Associate (Entry)	\$45.13	\$56.86
Carter, Sarah	Staff (Entry)	\$39.79	\$50.13
Clawson, Beth	Extension Educator	\$42.09	\$53.03
Cohen, Josh	Senior Conservation Scientist (Advanced)	\$58.29	\$73.44
Cole-Wick, Ashley	Conservation Associate (Entry)	\$43.71	\$55.08
Cuthrell, Dave	Senior Conservation Scientist (Advanced)	\$59.16	\$74.55
Elgin, Erick	Extension Educator	\$44.78	\$56.42
Enander, Helen	Staff (Advanced)	\$50.41	\$63.52
Gunn, Josh	Extension Educator	\$77.22	\$97.30
Haber, Elizabeth	Conservation Associate (Entry)	\$42.18	\$53.15
Hackett, Rachel	Conservation Associate (Entry)	\$44.73	\$56.36
Higman, Phyllis	Senior Conservation Scientist (Advanced)	\$69.16	\$87.14
Klatt, Brian	Senior Conservation Scientist (Advanced)	\$93.22	\$117.45
Korroch, Kraig	Staff (Intermediate)	\$48.85	\$61.56
Kortenhoven, Aaron	Conservation Associate (Entry)	\$41.93	\$52.84
Lee, Yu Man	Conservation Scientist (Intermediate)	\$60.10	\$75.72
Lincoln, Jesse	Conservation Scientist (Intermediate)	\$44.78	\$56.42
Monfils, Mike	Senior Conservation Scientist (Advanced)	\$68.06	\$85.75
Rogers, Becca	Staff (Advanced)	\$56.23	\$70.85
Ross, Courtney	Staff (Entry)	\$35.27	\$44.45
Rowe, Logan	Conservation Associate (Entry)	\$41.83	\$52.71
Sanders, Mike	Staff (Intermediate)	\$41.85	\$52.73
Scott, Warner	Conservation Associate (Entry)	\$44.18	\$55.67
Wilton, Clay	Conservation Associate (Entry)	\$41.88	\$52.77

Note: The hourly rates being provided will be used for computational purposes in estimating project costs. The Contractor does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students. The Contractor maintains documentation to support time expended on sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB Circular A-21, FAR 31.3.”

B. Rates for any new non-key staff, not identified upfront in Contract, must be identified in individual work plans and categorized under one of the three staff levels: Advanced/Expert, Intermediate, or Entry.

C. Rates for seasonal staff

Please Note that MSU waives the indirect rates for DNR projects – Rates for DNR rates are located the “rate” column in the table below.

Seasonal Staff	Rate	Rate Plus 26% Indirect
Conservation Associate (Entry)	\$43.20	\$54.43
Conservation Scientist (Intermediate)	\$53.09	\$66.89
Senior Conservation Scientist (Advanced)	\$62.58	\$78.85
Staff (Advanced)	\$57.17	\$65.67
Staff (Entry)	\$40.90	\$51.53
Staff (Intermediate)	\$47.14	\$59.39
Extension Educator	\$57.34	\$72.25
Seasonal Botanist	\$37.68	\$47.47
Seasonal Ecologist	\$37.68	\$47.47
Seasonal Ecologist	\$37.68	\$47.47

9. Consulting, Data Collection, Monitoring, Field Work, Conservation and Planning Services for MDOT, DEQ and DMVA - Staff Fixed Hourly Annual Rates

A. Rates for any existing staff

Please Note that MSU does not wave indirect rates for DNR, EGLE, MDOT or DMVA projects

MNFI Employee	MNFI Status	Burdened S/F Hourly Rate (\$)	Rate Plus 26% Indirect
Adkins, Ashley	Staff (Entry)	\$40.45	\$50.97
Badra, Pete	Senior Conservation Scientist (Advanced)	\$51.50	\$64.89
Bassett, Tyler	Conservation Associate (Entry)	\$45.13	\$56.86
Carter, Sarah	Staff (Entry)	\$39.79	\$50.13
Clawson, Beth	Extension Educator	\$42.09	\$53.03
Cohen, Josh	Senior Conservation Scientist (Advanced)	\$58.29	\$73.44
Cole-Wick, Ashley	Conservation Associate (Entry)	\$43.71	\$55.08
Cuthrell, Dave	Senior Conservation Scientist (Advanced)	\$59.16	\$74.55
Elgin, Erick	Extension Educator	\$44.78	\$56.42
Enander, Helen	Staff (Advanced)	\$50.41	\$63.52
Gunn, Josh	Extension Educator	\$77.22	\$97.30
Haber, Elizabeth	Conservation Associate (Entry)	\$42.18	\$53.15
Hackett, Rachel	Conservation Associate (Entry)	\$44.73	\$56.36
Higman, Phyllis	Senior Conservation Scientist (Advanced)	\$69.16	\$87.14
Klatt, Brian	Senior Conservation Scientist (Advanced)	\$93.22	\$117.45
Korroch, Kraig	Staff (Intermediate)	\$48.85	\$61.56
Kortenhoven, Aaron	Conservation Associate (Entry)	\$41.93	\$52.84
Lee, Yu Man	Conservation Scientist (Intermediate)	\$60.10	\$75.72
Lincoln, Jesse	Conservation Scientist (Intermediate)	\$44.78	\$56.42
Monfils, Mike	Senior Conservation Scientist (Advanced)	\$68.06	\$85.75
Rogers, Becca	Staff (Advanced)	\$56.23	\$70.85
Ross, Courtney	Staff (Entry)	\$35.27	\$44.45
Rowe, Logan	Conservation Associate (Entry)	\$41.83	\$52.71
Sanders, Mike	Staff (Intermediate)	\$41.85	\$52.73
Scott, Warner	Conservation Associate (Entry)	\$44.18	\$55.67
Wilton, Clay	Conservation Associate (Entry)	\$41.88	\$52.77

Note: The hourly rates being provided will be used for computational purposes in estimating project costs. The Contractor does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students. The Contractor maintains documentation to support time expended on sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB Circular A-21, FAR 31.3.”

B. Rates for any new non-key staff, not identified upfront in Contract, must be identified in individual work plans and categorized under one of the three staff levels: Advanced/Expert, Intermediate, or Entry.

C. Rates for seasonal staff

****Please Note that MSU does not wave indirect rates for DNR, EGLE, MDOT or DMVA projects****

Seasonal Staff	Rate	Rate Plus 26% Indirect
Conservation Associate (Entry)	\$43.20	\$54.43
Conservation Scientist (Intermediate)	\$53.09	\$66.89
Senior Conservation Scientist (Advanced)	\$62.58	\$78.85
Staff (Advanced)	\$57.17	\$65.67
Staff (Entry)	\$40.90	\$51.53
Staff (Intermediate)	\$47.14	\$59.39
Extension Educator	\$57.34	\$72.25
Seasonal Botanist	\$37.68	\$47.47
Seasonal Ecologist	\$37.68	\$47.47
Seasonal Ecologist	\$37.68	\$47.47

10. Travel

Years - Term	Fixed Not-To-Exceed Travel Amount
5 Years: 10/1/17 – 9/30/22 (FY18-FY22)	\$700,000.00

11. Please Note: “The hourly rates are being provided for informational and comparison purposes only. MSU does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students, but rather maintains documentation to support time expended on federally sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB 2 CFR Part 200- Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.”

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
 P.O. BOX 30026 LANSING, MICHIGAN 48909



CONTRACT CHANGE NOTICE

Change Notice Number 7
 to
 Contract Number 18000000169

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs , 426 Auditorium Road, Ro
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
	Contract Administrator	Courtney Powell (517) 249-0452 powellc11@michigan.gov	DTMB

CONTRACT SUMMARY				
NATURAL HERITAGE CONSERVATION PLANNING SERVICES				
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE	
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2022	
PAYMENT TERMS		DELIVERY TIMEFRAME		
Net 45		N/A		
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
MINIMUM DELIVERY REQUIREMENTS				
N/A				
DESCRIPTION OF CHANGE NOTICE				
OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>	N/A	<input type="checkbox"/>	N/A	N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$9,750,559.00	\$305,376.66	\$10,055,935.66		
DESCRIPTION				
Effective May 12, 2021, this Contract is increased by \$305,376.66 to support the Department of Environment, Great Lakes & Energy (EGLE)'s Recycling Program in the Sustainability Section of the Materials Management Division.				
All other terms, conditions, specifications, and pricing remain the same. Per Contractor and Agency agreement, DTMB Central Procurement Services approval, and State Administrative Board approval on May 11, 2021.				

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Michael Donovan	517-243-5514	donovanm@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
 P.O. BOX 30026 LANSING, MICHIGAN 48909



CONTRACT CHANGE NOTICE

Change Notice Number **6**
 to
 Contract Number **18000000169**

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs , 426 Auditorium Road, Ro
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
	Contract Administrator	Courtney Powell (517) 249-0452 powellc11@michigan.gov	DTMB

CONTRACT SUMMARY				
NATURAL HERITAGE CONSERVATION PLANNING SERVICES				
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE	
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2022	
PAYMENT TERMS		DELIVERY TIMEFRAME		
Net 45		N/A		
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING	
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
MINIMUM DELIVERY REQUIREMENTS				
N/A				
DESCRIPTION OF CHANGE NOTICE				
OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>	N/A	<input type="checkbox"/>	N/A	N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$9,450,559.00	\$300,000.00	\$9,750,559.00		
DESCRIPTION				
Effective April 28, 2021, this Contract is increased by \$300,000.00 for Department of Military and Veterans Affairs (DMVA) use. All other terms, conditions, specifications, and pricing remain the same. Per Contractor and Agency agreement, DTMB Central Procurement Services approval, and State Administrative Board approval on April 27, 2021.				

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Michael Donovan	517-243-5514	donovanm@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number 5
 to
 Contract Number 18000000169

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
	Contract Administrator	Courtney Powell	DTMB
		(517) 249-0452 powellc11@michigan.gov	

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2022
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>	N/A	<input type="checkbox"/>	N/A	N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$9,450,559.00	\$0.00	\$9,450,559.00		

DESCRIPTION

Effective October 1, 2020, the pricing is updated to reflect the new annual hourly rates for fiscal year 2021 and have been incorporated in Revised - Schedule B, attached.

All other terms, conditions, specifications and pricing remain the same. Per Contractor and Agency agreement, and DTMB Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Michael Donovan	517-243-5514	donovanm@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Gregory Pawlak	517-481-7655	PawlakG@michigan.gov

STATE OF MICHIGAN

Contract No. 171 18000000169

Change Notice 5

Natural Heritage Conservation Planning Services - Statewide and specifically Michigan Department of Natural Resources (DNR), Michigan Department of Environmental Quality (DEQ), Michigan Department of Transportation (MDOT) and Michigan Department of Military and Veterans Affairs (DMVA)

Revised - SCHEDULE B **Effective 10/1/2020 for Fiscal Year (FY) 2021**

1. Reserved.
2. Reserved.
3. Pricing must include all costs, including but not limited to, any one-time or set-up charges, fees, and potential costs that Contractor may charge the State (e.g., shipping and handling, per piece pricing, and palletizing).
4. Reserved.
5. Reserved.
6. The Contract pricing is fixed: Fixed Database Access and Fixed Consulting, Data Collection, Monitoring, Field Work, Project Management, Conservation and Planning Services - Staff Hourly Rates per the State's choosing from the tables identified in Section 7 through 9 below.
 - A. A fixed annual price will be used to compensate the Contractor for all services for MDOT and DEQ identified in:
 - Schedule A, Section 1.A General Requirements
 - Schedule A, Section 1.B Database Management and Information Technology
 - Unlimited, State use
 - Schedule A, Section 4. Program Management
 - B. A fixed annual hourly rate will be used to compensate the Contractor for all services for DNR identified in:
 - Schedule A, Section 1.A General Requirements
 - Schedule A, Section 1.C Consulting Services
 - Schedule A, Section 1.D Data Collection, Monitoring, and Field Work
 - Schedule A, Section 1.E Conservation and Planning Services
 - Schedule A, Section 4. Program Management

Updated rates must be submitted to the Program Manager on an annual basis, if applicable, no later than June 1 of each preceding State Fiscal Year, and a Contract Change Notice is required per Standard Contract Terms, Section 53 Contract Modification.
 - C. A fixed annual hourly rate will be used to compensate the Contractor for all services for MDOT and DEQ identified in:
 - Schedule A, Section 1.C Consulting Services
 - Schedule A, Section 1.D Data Collection, Monitoring, and Field Work
 - Schedule A, Section 1.E Conservation and Planning Services

Updated rates must be submitted to the Program Manager on an annual basis, if applicable, no later than June 1 of each preceding State Fiscal Year, and a Contract Change Notice is required per Standard Contract Terms, Section 53 Contract Modification.
 - D. A fixed not-to-exceed amount will be used to compensate the Contractor for any travel performed under the Contract during the Contract period. The specific value must be identified on each individual Work Plan. If additional funding is needed a Change Notice to the Contract will need to be processed per Standard Contract Terms, Section 53 Contract Modification.

7. Database Access (BIOTICS) for MDOT and DEQ – Firm-Fixed Annual Rate

Years - Term	Annual Maintenance and Hosting Fee	Annual Data Access Fee – Per Agency	1-Year Total – Per Agency	5-Year Total – Per Agency
5 Years: 10/1/17 – 9/30/22 (FY18-FY22)	\$0	\$49,114	\$49,114	\$245,570

8. Database Access, Consulting, Data Collection, Monitoring, Field Work, Program Management, Conservation and Planning Services for DNR - Staff Fixed Annual Hourly Rates

A. Rates for any existing staff

MNFI Employee	MNFI Status	Burdened S/F Hourly Rate (\$)	Rate Plus 26% Indirect
Adkins, Ashley	Staff (Entry)	45.74	57.63
Badra, Pete	Senior Conservation Scientist (Advanced)	50.50	63.63
Bassett, Tyler	Conservation Associate (Entry)	44.45	56.00
Carter, Sarah	Staff (Entry)	45.06	56.78
Cohen, Josh	Senior Conservation Scientist (Advanced)	56.94	71.75
Cole-Wick, Ashley	Conservation Associate (Entry)	43.10	54.31
Cuthrell, Dave	Senior Conservation Scientist (Advanced)	57.77	72.80
Enander, Helen	Staff (Advanced)	56.66	71.40
Hackett, Rachel	Conservation Associate (Entry)	44.07	55.52
Higman, Phyllis	Senior Conservation Scientist (Advanced)	67.27	84.75
Klatt, Brian	Senior Conservation Scientist (Advanced)	90.11	113.54
Korroch, Kraig	Staff (Intermediate)	54.96	69.26
Kortenhoven, Aaron	Conservation Associate (Entry)	41.41	52.18
Lee, Yu Man	Conservation Scientist (Intermediate)	58.66	73.91
Lincoln, Jesse	Conservation Scientist (Intermediate)	44.11	55.58
Monfils, Mike	Senior Conservation Scientist (Advanced)	66.22	83.43
Rogers, Becca	Staff (Advanced)	63.03	79.41
Rowe, Logan	Conservation Associate (Entry)	41.32	52.06
Sanders, Mike	Staff (Intermediate)	47.31	59.61
Toben, Nancy	Staff (Advanced)	61.12	77.01
Wilton, Clay	Conservation Associate (Entry)	41.36	52.12

Note: The hourly rates being provided will be used for computational purposes in estimating project costs. The Contractor does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students. The Contractor maintains documentation to support time expended on sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB Circular A-21, FAR 31.3.”

B. Rates for any new non-key staff, not identified upfront in Contract, must be identified in individual work plans and categorized under one of the three staff levels: Advanced/Expert, Intermediate, or Entry.

C. Rates for seasonal staff

Seasonal Staff	Rate	Rate Plus 26% Indirect
Seasonal Ecologist	\$ 25.00	\$ 31.50
Seasonal Botanist	\$ 25.00	\$ 31.50
Seasonal Zoologist	\$ 25.00	\$ 31.50

9. Consulting, Data Collection, Monitoring, Field Work, Conservation and Planning Services for MDOT, DEQ and DMVA - Staff Fixed Hourly Annual Rates

A. Rates for any existing staff

MNFI Employee	MNFI Status	Burdened S/F Hourly Rate (\$)
Adkins, Ashley	Staff (Entry)	45.74
Badra, Pete	Senior Conservation Scientist (Advanced)	50.50
Bassett, Tyler	Conservation Associate (Entry)	44.45
Carter, Sarah	Staff (Entry)	45.06
Cohen, Josh	Senior Conservation Scientist (Advanced)	56.94
Cole-Wick, Ashley	Conservation Associate (Entry)	43.10
Cuthrell, Dave	Senior Conservation Scientist (Advanced)	57.77
Enander, Helen	Staff (Advanced)	56.66
Hackett, Rachel	Conservation Associate (Entry)	44.07
Higman, Phyllis	Senior Conservation Scientist (Advanced)	67.27
Klatt, Brian	Senior Conservation Scientist (Advanced)	90.11
Korroch, Kraig	Staff (Intermediate)	54.96
Kortenhoven, Aaron	Conservation Associate (Entry)	41.41
Lee, Yu Man	Conservation Scientist (Intermediate)	58.66
Lincoln, Jesse	Conservation Scientist (Intermediate)	44.11
Monfils, Mike	Senior Conservation Scientist (Advanced)	66.22
Rogers, Becca	Staff (Advanced)	63.03
Rowe, Logan	Conservation Associate (Entry)	41.32
Sanders, Mike	Staff (Intermediate)	47.31
Toben, Nancy	Staff (Advanced)	61.12
Wilton, Clay	Conservation Associate (Entry)	41.36

Note: The hourly rates being provided will be used for computational purposes in estimating project costs. The Contractor does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students. The Contractor maintains documentation to support time expended on sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB Circular A-21, FAR 31.3."

B. Rates for any new non-key staff, not identified upfront in Contract, must be identified in individual work plans and categorized under one of the three staff levels: Advanced/Expert, Intermediate, or Entry.

C. Rates for seasonal staff

Seasonal Staff	Rate
Seasonal Ecologist	\$ 25.00
Seasonal Botanist	\$ 25.00
Seasonal Zoologist	\$ 25.00

10. Travel

Years - Term	Fixed Not-To-Exceed Travel Amount
5 Years: 10/1/17 – 9/30/22 (FY18-FY22)	\$700,000.00

STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
 P.O. BOX 30026 LANSING, MICHIGAN 48909



CONTRACT CHANGE NOTICE

Change Notice Number **4**
 to
 Contract Number **17118000000169**

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	MULTI
	Contract Administrator	Courtney Flores	DTMB
		(517) 249-0452 floresc@michigan.gov	

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2022
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>	N/A	<input type="checkbox"/>	N/A	N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$8,950,659.00	\$499,900.00	\$9,450,559.00		

DESCRIPTION

Effective August 14, 2019, this Contract is hereby amended as follows:

- This Contract is increased by \$499,900.00 for Department of Military and Veterans Affairs (DMVA) use.
- Effective October 1, 2019, the pricing is updated to reflect the new annual hourly rates for fiscal year 2020 and have been incorporated in Revised - Schedule B, attached.

All other terms, conditions, specifications, and pricing remain the same. Per Contractor and Agency agreement, DTMB Central Procurement Services approval, and State Administrative Board approval on August 13, 2019.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Michael Donovan	517-243-5514	donovanm@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Jonathan Edgerly	269-731-6570	jonathan.w.edgerly.nfg@mail.mil

STATE OF MICHIGAN

Contract No. 171 180000000169

Change Notice 4

Natural Heritage Conservation Planning Services - Statewide and specifically Michigan Department of Natural Resources (DNR), Michigan Department of Environmental Quality (DEQ), Michigan Department of Transportation (MDOT) and Michigan Department of Military and Veterans Affairs (DMVA)

Revised - SCHEDULE B **Effective 10/1/2019 for Fiscal Year (FY) 2020**

1. Reserved.
2. Reserved.
3. Pricing must include all costs, including but not limited to, any one-time or set-up charges, fees, and potential costs that Contractor may charge the State (e.g., shipping and handling, per piece pricing, and palletizing).
4. Reserved.
5. Reserved.
6. The Contract pricing is fixed: Fixed Database Access and Fixed Consulting, Data Collection, Monitoring, Field Work, Project Management, Conservation and Planning Services - Staff Hourly Rates per the State's choosing from the tables identified in Section 7 through 9 below.
 - A. A fixed annual price will be used to compensate the Contractor for all services for MDOT and DEQ identified in:
 - Schedule A, Section 1.A General Requirements
 - Schedule A, Section 1.B Database Management and Information Technology
 - Unlimited, State use
 - Schedule A, Section 4. Program Management
 - B. A fixed annual hourly rate will be used to compensate the Contractor for all services for DNR identified in:
 - Schedule A, Section 1.A General Requirements
 - Schedule A, Section 1.C Consulting Services
 - Schedule A, Section 1.D Data Collection, Monitoring, and Field Work
 - Schedule A, Section 1.E Conservation and Planning Services
 - Schedule A, Section 4. Program Management

Updated rates must be submitted to the Program Manager on an annual basis, if applicable, no later than June 1 of each preceding State Fiscal Year, and a Contract Change Notice is required per Standard Contract Terms, Section 53 Contract Modification.
 - C. A fixed annual hourly rate will be used to compensate the Contractor for all services for MDOT and DEQ identified in:
 - Schedule A, Section 1.C Consulting Services
 - Schedule A, Section 1.D Data Collection, Monitoring, and Field Work
 - Schedule A, Section 1.E Conservation and Planning Services

Updated rates must be submitted to the Program Manager on an annual basis, if applicable, no later than June 1 of each preceding State Fiscal Year, and a Contract Change Notice is required per Standard Contract Terms, Section 53 Contract Modification.
 - D. A fixed not-to-exceed amount will be used to compensate the Contractor for any travel performed under the Contract during the Contract period. The specific value must be identified on each individual Work Plan. If additional funding is needed a Change Notice to the Contract will need to be processed per Standard Contract Terms, Section 53 Contract Modification.

7. Database Access (BIOTICS) for MDOT and DEQ – Firm-Fixed Annual Rate

Years - Term	Annual Maintenance and Hosting Fee	Annual Data Access Fee – Per Agency	1-Year Total – Per Agency	5-Year Total – Per Agency
5 Years: 10/1/17 – 9/30/22 (FY18-FY22)	\$0	\$49,114	\$49,114	\$245,570

8. Database Access, Consulting, Data Collection, Monitoring, Field Work, Program Management, Conservation and Planning Services for DNR - Staff Fixed Annual Hourly Rates

A. Rates for any existing staff

Regular Staff Classification	On-site Rate	Off-site Rate
Conservation Associate (Entry)	\$56.29	\$56.29
Conservation Scientist (Intermediate)	\$71.58	\$71.58
Senior Conservation Scientist (Advanced)	\$95.28	\$95.28
Staff (Advanced)	\$78.56	\$78.56
Staff (Entry)	\$59.72	\$59.72
Staff (Intermediate)	\$66.88	\$66.88

Note: The hourly rates being provided will be used for computational purposes in estimating project costs. The Contractor does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students. The Contractor maintains documentation to support time expended on sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB Circular A-21, FAR 31.3.”

B. Rates for any new non-key staff, not identified upfront in Contract, must be identified in individual work plans and categorized under one of the three staff levels: Advanced/Expert, Intermediate, or Entry.

C. Rates for seasonal staff

Seasonal Staff	Rate
Seasonal Ecologist	\$ 25.00
Seasonal Botanist	\$ 25.00
Seasonal Zoologist	\$ 25.00

9. Consulting, Data Collection, Monitoring, Field Work, Conservation and Planning Services for MDOT, DEQ and DMVA - Staff Fixed Hourly Annual Rates

A. Rates for any existing staff

Regular Staff Classification	On-site Rate	Off-site Rate
Conservation Associate (Entry)	\$56.29	\$56.29
Conservation Scientist (Intermediate)	\$71.58	\$71.58

Senior Conservation Scientist (Advanced)	\$95.28	\$95.28
Staff (Advanced)	\$78.56	\$78.56
Staff (Entry)	\$59.72	\$59.72
Staff (Intermediate)	\$66.88	\$66.88

Note: The hourly rates being provided will be used for computational purposes in estimating project costs. The Contractor does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students. The Contractor maintains documentation to support time expended on sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB Circular A-21, FAR 31.3."

B. Rates for any new non-key staff, not identified upfront in Contract, must be identified in individual work plans and categorized under one of the three staff levels: Advanced/Expert, Intermediate, or Entry.

C. Rates for seasonal staff

Seasonal Staff	Rate
Seasonal Ecologist	\$ 25.00
Seasonal Botanist	\$ 25.00
Seasonal Zoologist	\$ 25.00

10. Travel

Years - Term	Fixed Not-To-Exceed Travel Amount
5 Years: 10/1/17 – 9/30/22 (FY18-FY22)	\$700,000.00

MNFI Staff List and Classifications as of 10 July 2019

Staff Name	Specialty	Staff Level
Adkins, Ashley	Program Support	Staff (Entry)
Badra, Pete	Aquatic	Conservation Scientist (Intermediate)
Bassett, Tyler	Botany	Conservation Associate (Entry)
Cohen, Josh	Terrestrial	Conservation Scientist (Intermediate)
Cole-Wick, Ashley	Zoology	Conservation Associate (Entry)
Cuthrell, Dave	Zoology	Conservation Scientist (Intermediate)
Enander, Helen	GIS/IT	Staff (Advanced)
Hackett, Rachel	Botany	Conservation Associate (Entry)
Higman, Phyllis	Botany	Senior Conservation Scientist (Advanced)
Hyde, Daria	Zoology	Conservation Scientist (Intermediate)
Klatt, Brian	Terrestrial	Senior Conservation Scientist (Advanced)
Korroch, Kraig	GIS/IT	Staff (Intermediate)
Kortenhoven, Aaron	Terrestrial	Conservation Associate (Entry)
Lee, Yu Man	Zoology	Conservation Scientist (Intermediate)
Lincoln, Jesse	Terrestrial	Conservation Associate (Entry)
Monfils, Monfils	Zoology	Senior Conservation Scientist (Advanced)
Paskus Jr, John	Planning	Senior Conservation Scientist (Advanced)
Rogers, Rebecca	GIS/IT	Staff (Advanced)
Rowe, Logan	Zoology	Conservation Associate (Entry)
Sanders, Michael	GIS/IT	Staff (Intermediate)
Toben, Nancy	Program Support	Staff (Advanced)
Wilton, Clay	Terrestrial	Conservation Associate (Entry)

**STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES**

Department of Technology, Management, and Budget
525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
P.O. BOX 30026 LANSING, MICHIGAN 48909



CONTRACT CHANGE NOTICE

Change Notice Number **3**
to
Contract Number **17118000000169**

CONTRACTOR	MICHIGAN STATE UNIVERSITY
	Office of Sponsored Programs
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various	DNR
	Contract Administrator	Courtney Flores	DTMB
		(517) 249-0452	
		floresc@michigan.gov	

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2022
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> PRC <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>	N/A	<input type="checkbox"/>	N/A	N/A
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$8,750,659.00	\$200,000.00	\$8,950,659.00		

DESCRIPTION

Effective May 20, 2019, this Contract is increased by \$200,000.00 for Michigan Department of Environment, Great Lakes & Energy (EGLE) use.

Please note Section **41 Nondiscrimination** of the Standard Contract Terms is hereby deleted and replaced with the following:

"41. Nondiscrimination. Under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, et seq., the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, et seq., and Executive Directive 2019-09. Contractor and its subcontractors agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex (as defined in Executive Directive 2019-09), height, weight, marital status, partisan considerations, any mental or physical disability, or genetic information that is unrelated to the person's ability to perform the duties of a particular job or position. Breach of this covenant is a material breach of this Contract."

All other terms, conditions, specifications and pricing remain the same. Per Contractor and Agency agreement, and DTMB Central Procurement Services approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Michael Donovan	517-243-5514	donovanm@michigan.gov
EGLE	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Jonathan Edgerly	269-731-6570	jonathan.w.edgerly.nfg@mail.mil



STATE OF MICHIGAN
CENTRAL PROCUREMENT SERVICES
 Department of Technology, Management, and Budget
 525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number **2**
 to
 Contract Number **17118000000169**

CONTRACTOR	Michigan State University
	Office of Sponsored Programs
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Various - See Attached	
	Contract Administrator	Courtney Flores	DTMB
		(517) 249-0452	floresc@michigan.gov

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2022
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> Direct Voucher (DV) <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>	N/A	<input type="checkbox"/>	N/A	
CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE		
\$8,750,659.00	\$0.00	\$8,750,659.00		

DESCRIPTION

Effective October 1, 2018, the pricing is updated to reflect the new annual hourly rates for fiscal year 2019 and have been incorporated in Revised - Schedule B, attached.

All other terms, conditions, specifications and pricing remain the same. Per Contractor and Agency agreement, and DTMB Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Michael Donovan	517-243-5514	donovanm@michigan.gov
DEQ	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalleym@michigan.gov
DMVA	Jonathan Edgerly	269-731-6570	jonathan.w.edgerly.nfg@mail.mil

STATE OF MICHIGAN

Contract No. 171 18000000169

Natural Heritage Conservation Planning Services - Statewide and specifically Michigan Department of Natural Resources (DNR), Michigan Department of Environmental Quality (DEQ), Michigan Department of Transportation (MDOT) and Michigan Department of Military and Veterans Affairs (DMVA)

Revised - SCHEDULE B Effective 10/1/2018 for Fiscal Year (FY) 2019

1. Reserved.
2. Reserved.
3. Pricing must include all costs, including but not limited to, any one-time or set-up charges, fees, and potential costs that Contractor may charge the State (e.g., shipping and handling, per piece pricing, and palletizing).
4. Reserved.
5. Reserved.
6. The Contract pricing is fixed: Fixed Database Access and Fixed Consulting, Data Collection, Monitoring, Field Work, Project Management, Conservation and Planning Services - Staff Hourly Rates per the State's choosing from the tables identified in Section 7 through 9 below.

A. A fixed annual price will be used to compensate the Contractor for all services for MDOT and DEQ identified in:

- Schedule A, Section 1.A General Requirements
- Schedule A, Section 1.B Database Management and Information Technology
 - Unlimited, State use
- Schedule A, Section 4. Program Management

B. A fixed annual hourly rate will be used to compensate the Contractor for all services for DNR identified in:

- Schedule A, Section 1.A General Requirements
- Schedule A, Section 1.C Consulting Services
- Schedule A, Section 1.D Data Collection, Monitoring, and Field Work
- Schedule A, Section 1.E Conservation and Planning Services
- Schedule A, Section 4. Program Management

Updated rates must be submitted to the Program Manager on an annual basis, if applicable, no later than June 1 of each preceding State Fiscal Year, and a Contract Change Notice is required per Standard Contract Terms, Section 53 Contract Modification.

C. A fixed annual hourly rate will be used to compensate the Contractor for all services for MDOT and DEQ identified in:

- Schedule A, Section 1.C Consulting Services
- Schedule A, Section 1.D Data Collection, Monitoring, and Field Work
- Schedule A, Section 1.E Conservation and Planning Services

Updated rates must be submitted to the Program Manager on an annual basis, if applicable, no later than June 1 of each preceding State Fiscal Year, and a Contract Change Notice is required per Standard Contract Terms, Section 53 Contract Modification.

D. A fixed not-to-exceed amount will be used to compensate the Contractor for any travel performed under the Contract during the Contract period. The specific value must be identified on each individual Work Plan. If additional funding is needed a Change Notice to the Contract will need to be processed per Standard Contract Terms, Section 53 Contract Modification.

7. Database Access (BIOTICS) for MDOT and DEQ – Firm-Fixed Annual Rate

Years - Term	Annual Maintenance and Hosting Fee	Annual Data Access Fee – Per Agency	1-Year Total – Per Agency	5-Year Total – Per Agency
5 Years: 10/1/17 – 9/30/22 (FY18-FY22)	\$0	\$49,114	\$49,114	\$245,570

8. Database Access, Consulting, Data Collection, Monitoring, Field Work, Program Management, Conservation and Planning Services for DNR - Staff Fixed Annual Hourly Rates

A. Rates for any existing staff

Staff Name	Key Personnel (Y/N)	Specialty	Staff Level	Hourly Rate FY19	Waived Indirect Cost % - Applicable to DNR Only
Adkins, Ashley	N	Program Support	Staff (Entry)	\$ 55.39	26
Badra, Pete	Y	Aquatic	Senior Conservation Scientist (Advanced)	\$ 63.79	26
Bassett, Tyler	N	Botany	Conservation Associate (Entry)	\$ 55.95	26
Cohen, Josh	Y	Terrestrial	Senior Conservation Scientist (Advanced)	\$ 68.74	26
Cuthrell, Dave	Y	Zoology	Senior Conservation Scientist (Advanced)	\$ 71.21	26
Enander, Helen	N	GIS/IT	Staff (Advanced)	\$ 71.47	26
Hackett, Rachel	N	Botany	Conservation Associate (Entry)	\$ 51.74	26
Higman, Phyllis	Y	Botany	Senior Conservation Scientist (Advanced)	\$ 85.73	26
Hyde, Daria	N	Zoology	Conservation Scientist (Intermediate)	\$ 66.86	26
Klatt, Brian	Y	Terrestrial	Senior Conservation Scientist (Advanced)	\$ 113.19	26
Korroch, Kraig	N	GIS/IT	Staff (Intermediate)	\$ 69.55	26
Kortenhoven, Aaron	N	Terrestrial	Conservation Associate (Entry)	\$ 51.74	26
Lee, Yu Man	N	Zoology	Conservation Scientist (Intermediate)	\$ 74.58	26
Lincoln, Jesse	N	Terrestrial	Conservation Associate (Entry)	\$ 53.81	26
Monfils, Mike	Y	Zoology	Senior Conservation Scientist (Advanced)	\$ 79.94	26

Paskus, John	Y	Planning	Senior Conservation Scientist (Advanced)	\$ 82.32	26
Rogers, Becca	Y	GIS/IT	Staff (Advanced)	\$ 77.69	26
Sanders, Mike	N	GIS/IT	Staff (Intermediate)	\$ 59.51	26
Toben, Nancy	N	Program Support	Staff (Advanced)	\$ 76.25	26
Wilton, Clay	N	Terrestrial	Conservation Associate (Entry)	\$ 51.74	26

*Advanced/Expert, Intermediate, or Entry

Note: The hourly rates being provided will be used for computational purposes in estimating project costs. The Contractor does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students. The Contractor maintains documentation to support time expended on sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB Circular A-21, FAR 31.3."

- B. Rates for any new non-key staff, not identified upfront in Contract, must be identified in individual work plans and categorized under one of the three staff levels: Advanced/Expert, Intermediate, or Entry.**

MNFI Status	FY19	
	On-site Rate	Off-site Rate
Conservation Associate (Entry)	\$ 52.99	\$ 52.99
Conservation Scientist (Intermediate)	\$ 70.72	\$ 70.72
Senior Conservation Scientist (Advanced)	\$ 80.70	\$ 80.70
Staff (Advanced)	\$ 75.14	\$ 75.14
Staff (Entry)	\$ 55.39	\$ 55.39
Staff (Intermediate)	\$ 64.53	\$ 64.53
Waived Indirect %	26%	26%

- C. Rates for seasonal staff**

Seasonal Staff	Rate
Seasonal Ecologist	\$ 20.00
Seasonal Botanist	\$ 20.00
Seasonal Zoologist	\$ 20.00

9. Consulting, Data Collection, Monitoring, Field Work, Conservation and Planning Services for MDOT, DEQ and DMVA - Staff Fixed Hourly Annual Rates

- A. Rates for any existing staff**

Staff Name	Key Personnel (Y/N)	Specialty	Staff Level	Hourly Rate FY19
Adkins, Ashley	N	Program Support	Staff (Entry)	\$ 55.39
Badra, Pete	Y	Aquatic	Senior Conservation Scientist (Advanced)	\$ 63.79
Bassett, Tyler	N	Botany	Conservation Associate (Entry)	\$ 55.95
Cohen, Josh	Y	Terrestrial	Senior Conservation Scientist (Advanced)	\$ 68.74
Cuthrell, Dave	Y	Zoology	Senior Conservation Scientist (Advanced)	\$ 71.21
Enander, Helen	N	GIS/IT	Staff (Advanced)	\$ 71.47
Hackett, Rachel	N	Botany	Conservation Associate (Entry)	\$ 51.74
Higman, Phyllis	Y	Botany	Senior Conservation Scientist (Advanced)	\$ 85.73
Hyde, Daria	N	Zoology	Conservation Scientist (Intermediate)	\$ 66.86
Klatt, Brian	Y	Terrestrial	Senior Conservation Scientist (Advanced)	\$ 113.19
Korroch, Kraig	N	GIS/IT	Staff (Intermediate)	\$ 69.55
Kortenhoven, Aaron	N	Terrestrial	Conservation Associate (Entry)	\$ 51.74
Lee, Yu Man	N	Zoology	Conservation Scientist (Intermediate)	\$ 74.58
Lincoln, Jesse	N	Terrestrial	Conservation Associate (Entry)	\$ 53.81
Monfils, Mike	Y	Zoology	Senior Conservation Scientist (Advanced)	\$ 79.94
Paskus, John	Y	Planning	Senior Conservation Scientist (Advanced)	\$ 82.32
Rogers, Becca	Y	GIS/IT	Staff (Advanced)	\$ 77.69
Sanders, Mike	N	GIS/IT	Staff (Intermediate)	\$ 59.51
Toben, Nancy	N	Program Support	Staff (Advanced)	\$ 76.25
Wilton, Clay	N	Terrestrial	Conservation Associate (Entry)	\$ 51.74

*Advanced/Expert, Intermediate, or Entry

Note: The hourly rates being provided will be used for computational purposes in estimating project costs. The Contractor does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students. The Contractor maintains documentation to support time expended on sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB Circular A-21, FAR 31.3.”

B. Rates for any new non-key staff, not identified upfront in Contract, must be identified in individual work plans and categorized under one of the three staff levels: Advanced/Expert, Intermediate, or Entry.

MNFI Status	On-site Rate	Off-site Rate
Conservation Associate (Entry)	\$ 52.99	\$ 52.99
Conservation Scientist (Intermediate)	\$ 70.72	\$ 70.72
Senior Conservation Scientist (Advanced)	\$ 80.70	\$ 80.70
Staff (Advanced)	\$ 75.14	\$ 75.14
Staff (Entry)	\$ 55.39	\$ 55.39
Staff (Intermediate)	\$ 64.53	\$ 64.53

C. Rates for seasonal staff

Seasonal Staff	Rate
Seasonal Ecologist	\$ 20.00
Seasonal Botanist	\$ 20.00
Seasonal Zoologist	\$ 20.00

10. Travel

Years - Term	Fixed Not-To-Exceed Travel Amount
5 Years: 10/1/17 – 9/30/22 (FY18-FY22)	\$700,000.00



STATE OF MICHIGAN
ENTERPRISE PROCUREMENT
 Department of Technology, Management, and Budget
 525 W. ALLEGAN ST., LANSING, MICHIGAN 48913
 P.O. BOX 30026 LANSING, MICHIGAN 48909

CONTRACT CHANGE NOTICE

Change Notice Number 1
 to
 Contract Number 17118000000169

CONTRACTOR	Michigan State University
	Office of Sponsored Programs
	East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	awards@cga.msu.edu
	CV0048200

STATE	Program Manager	Varies - See Table Below	
	Contract Administrator	Courtney Flores	DTMB
		(517) 249-0452	floresc@michigan.gov

CONTRACT SUMMARY

NATURAL HERITAGE CONSERVATION PLANNING SERVICES

INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
December 19, 2017	December 18, 2022	5 - 1 Year	December 18, 2022

PAYMENT TERMS	DELIVERY TIMEFRAME
Net 45	N/A

ALTERNATE PAYMENT OPTIONS	EXTENDED PURCHASING
<input type="checkbox"/> P-Card <input type="checkbox"/> Direct Voucher (DV) <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

MINIMUM DELIVERY REQUIREMENTS

N/A

DESCRIPTION OF CHANGE NOTICE

OPTION	LENGTH OF OPTION	EXTENSION	LENGTH OF EXTENSION	REVISED EXP. DATE
<input type="checkbox"/>	N/A	<input type="checkbox"/>	N/A	

CURRENT VALUE	VALUE OF CHANGE NOTICE	ESTIMATED AGGREGATE CONTRACT VALUE
\$8,450,000.00	\$300,659.00	\$8,750,659.00

DESCRIPTION

Effective June 1, 2018, Department of Military and Veterans Affairs (DMVA) is hereby added to this Contract. Additional funding of \$300,659.00 is added for DMVA use.

Please note the Program Manager for DMVA is Jonathan Edgerly: Phone: 269-731-6570; Email: jonathan.w.edgerly.nfg@mail.mil, per Section 4 of the Standard Contract Terms.

All other terms, conditions, specifications and pricing remain the same. Per contractor and agency agreement, and DTMB Procurement approval.

**Program Managers
for
Multi-Agency and Statewide Contracts**

AGENCY	NAME	PHONE	EMAIL
DNR	Michael Donovan	517-243-5514	donovanm@michigan.gov
DEQ	Amy Lounds	517-284-5530	loundsa@michigan.gov
MDOT	Mike O'Malley	517-335-2634	omalley@michigan.gov
DMVA	Jonathan Edgerly	269-731-6570	jonathan.w.edgerly.nfg@mail.mil



**STATE OF MICHIGAN
ENTERPRISE PROCUREMENT**

Department of Technology, Management and Budget

525 W. Allegan St., Lansing, Michigan 48913

P.O. BOX 30026 Lansing, Michigan 48909

NOTICE OF CONTRACT

NOTICE OF CONTRACT NO. **171 18000000169**

between

THE STATE OF MICHIGAN

and

CONTRACTOR	Michigan State University
	Office of Sponsored Programs 426 Auditorium Road, Room 2
	Hannah Admin Building East Lansing, MI 48824
	Stacy Salisbury
	517-884-4252
	Awards@cga.msu.edu
	5984

STATE	Program Manager	Michael Donovan	DNR
		517-243-5514	
	donovanm@michigan.gov		
	Contract Administrator	Courtney Flores	DTMB
517-284-6397			
floresc@michigan.gov			

CONTRACT SUMMARY			
DESCRIPTION: Natural Heritage Conservation Planning Services			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
12/19/2017	12/18/2022	5 – 1 Year	
PAYMENT TERMS		DELIVERY TIMEFRAME	
Net 45		N/A	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-card <input type="checkbox"/> Direct Voucher (DV) <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
MINIMUM DELIVERY REQUIREMENTS			
N/A			
MISCELLANEOUS INFORMATION			
N/A			
ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION			\$8,450,000.00

CONTRACT NO. 171 18000000169171

FOR THE CONTRACTOR:

Company Name

Authorized Agent Signature

Authorized Agent (Print or Type)

Date

FOR THE STATE:

Signature

Name & Title

Agency

Date



STATE OF MICHIGAN

STANDARD CONTRACT TERMS

This STANDARD CONTRACT (“**Contract**”) is agreed to between the State of Michigan (the “**State**”) and Michigan State University (“**Contractor**”), a public university. This Contract is effective on December 19, 2017 (“**Effective Date**”), and unless terminated, expires on December 18, 2022.

This Contract may be renewed for up to five additional one-year period(s). Renewal is at the sole discretion of the State and will automatically extend the Term of this Contract. The State will document its exercise of renewal options via Contract Change Notice.]

The parties agree as follows:

- 1. Duties of Contractor.** Contractor must perform the services and provide the deliverables described in **Schedule A – Statement of Work** (the “**Contract Activities**”). An obligation to provide delivery of any commodity is considered a service and is a Contract Activity.

Contractor must furnish all labor, equipment, materials, and supplies necessary for the performance of the Contract Activities, and meet operational standards, unless otherwise specified in Schedule A.

Contractor must: (a) perform the Contract Activities in a timely, professional, safe, and workmanlike manner consistent with standards in the trade, profession, or industry; (b) meet or the performance and operational standards, and specifications of the Contract; (c) provide all Contract Activities in accordance with the attached Statement of Work; (d) not interfere with the State’s operations; (e) obtain and maintain all necessary licenses, permits or other authorizations necessary for the performance of the Contract; (f) cooperate with the State, including the State’s quality assurance personnel, and any third party to achieve the objectives of the Contract; (g) return to the State any State-furnished equipment or other resources with reasonable wear and tear only when no longer required for the Contract; (h) permit the State to post publicly, or otherwise make available, any written reports created by Contractor pursuant to their Completion of Contract Activities; (i) assign to the State any claims resulting from state or federal antitrust violations to the extent that those violations concern materials or services supplied by third parties toward fulfillment of the Contract; and (j) comply with all State physical and IT security policies and standards which will be made available upon request. Any breach under this paragraph is considered a material breach.

Contractor must also be clearly identifiable while on State property by wearing identification issued by the State, and clearly identify themselves whenever making contact with the State.

- 2. Notices.** All notices and other communications required or permitted under this Contract must be in writing and will be considered given and received: (a) when verified by written receipt if sent by courier; (b) when actually received if sent by mail without verification of receipt; or (c) when verified by automated receipt or electronic logs if sent by facsimile or email.

If to State: Courtney Flores 525 W. Allegan St. Lansing, MI 48909 floresc@michigan.gov (517) 284-6397	If to Contractor: Stacy Salisbury, Manager Contract and Grant Administration Michigan State University 426 Auditorium Rd. Hannah Administration Building, Room 2 East Lansing, MI 48824 Awards@cga.msu.edu 517-884-4252
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3. **Contract Administrator.** The Contract Administrator for each party is the only person authorized to modify any terms of this Contract, and approve and execute any change under this Contract (each a “**Contract Administrator**”):

State: Courtney Flores 525 W. Allegan St. Lansing, MI 48909 floresc@michigan.gov (517) 284-6397	Contractor: Diane Cox, Sponsored Programs Manager Michigan State University 426 Auditorium Rd. Room 2 Hannah Admin Building East Lansing, MI 48824 ContractTeam2@osp.msu.edu 517-884-4243
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4. **Program Manager.** The Program Manager for each party will monitor and coordinate the day-to-day activities of the Contract (each a “**Program Manager**”):

State:	Contractor:
For Department of Natural Resources (DNR): Michael Donovan 525 W. Allegan St. Lansing, MI 48909 donovanm@michigan.gov (517) 243-5514	Brian Klatt, Director Michigan Natural Features Inventory Michigan State University Extension P.O. Box 13036 Constitution Hall, 3 rd Floor NE Lansing, MI 48901-3036 Email: klattb@msu.edu Phone: 517-284-6195
For Department of Environmental Quality (DEQ): Amy Lounds 525 W. Allegan St. Lansing, MI 48909 loundsa@michigan.gov (517) 284-5530	
For Michigan Department of Transportation (MDOT) Mike O'Malley 425 W Ottawa St. Lansing, MI 48933 omalley@michigan.gov (517) 335-2634	

5. **Performance Guarantee.** Contractor must at all times have financial resources sufficient, in the opinion of the State, to ensure performance of the Contract and must provide proof upon request.
6. **Insurance Requirements.** Contractor must maintain the insurances or self-insurance identified below and is responsible for all deductibles. All required insurance must: (a) be primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State; and (b) be provided by a company with an A.M. Best rating of "A" or better, and a financial size of VII or better.

Required Limits	Additional Requirements
Commercial General Liability Insurance	
Minimal Limits: \$1,000,000 Each Occurrence Limit \$1,000,000 Personal & Advertising Injury Limit \$2,000,000 General Aggregate Limit \$2,000,000 Products/Completed Operations	

Automobile Liability Insurance	
<u>Minimal Limits:</u> \$1,000,000 Per Occurrence	
Workers' Compensation Insurance	
<u>Minimal Limits:</u> Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.
Employers Liability Insurance	
<u>Minimal Limits:</u> \$500,000 Each Accident \$500,000 Each Employee by Disease \$500,000 Aggregate Disease.	
Privacy and Security Liability (Cyber Liability) Insurance	
<u>Minimal Limits:</u> \$1,000,000 Each Occurrence \$1,000,000 Annual Aggregate	
Professional Liability (Errors and Omissions) Insurance	
<u>Minimal Limits:</u> \$3,000,000 Each Occurrence \$3,000,000 Annual Aggregate	

If any of the required policies provide **claims-made** coverage, the Contractor must: (a) provide coverage with a retroactive date before the effective date of the contract or the beginning of Contract Activities; (b) maintain coverage and provide evidence of coverage for at least three (3) years after completion of the Contract Activities; and (c) if coverage is canceled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, Contractor must purchase extended reporting coverage for a minimum of three (3) years after completion of work.

Contractor must: (a) provide insurance certificates to the Contract Administrator, containing the agreement or purchase order number, at Contract formation and within 20 calendar days of the expiration date of the applicable policies; (b) require that subcontractors maintain the required insurances contained in this Section; (c) notify the Contract Administrator within 5 business days if any insurance is cancelled; and (d) waive all rights against the State for damages covered by insurance. Failure to maintain the required insurance does not limit this waiver.

This Section is not intended to and is not be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State).

7. Reserved.

- 8. Extended Purchasing Program.** This Contract is extended to MiDEAL members. MiDEAL members include local units of government, school districts, universities, community colleges, and nonprofit hospitals. A current list of MiDEAL members is available at www.michigan.gov/mideal. Upon written agreement between the State and Contractor, this contract may also be extended to: (a) State of Michigan employees and (b) other states (including governmental subdivisions and authorized entities).

If extended, Contractor must supply all Contract Activities at the established Contract prices and terms.

Contractor must submit invoices to, and receive payment from, extended purchasing program members on a direct and individual basis.

- 9. Independent Contractor.** Contractor is an independent contractor and assumes all rights, obligations and liabilities set forth in this Contract. Contractor, its employees, and agents will not be considered employees of the State. No partnership or joint venture relationship is created by virtue of this Contract. Contractor, and not the State, is responsible for the payment of wages, benefits and taxes of Contractor's employees and any subcontractors. Prior performance does not modify Contractor's status as an independent contractor.

10. **Subcontracting.** Contractor may not delegate any of its obligations under the Contract without the prior written approval of the State. Contractor must notify the State at least 30 calendar days before the proposed delegation, and provide the State any information it requests to determine whether the delegation is in its best interest. If approved, Contractor must: (a) be the sole point of contact regarding all contractual matters, including payment and charges for all Contract Activities; (b) make all payments to the subcontractor; and (c) incorporate the terms and conditions contained in this Contract in any subcontract with a subcontractor. Contractor remains responsible for the completion of the Contract Activities, compliance with the terms of this Contract, and the acts and omissions of the subcontractor. The State, in its sole discretion, may require the replacement of any subcontractor.
11. **Staffing.** The State's Contract Administrator may require Contractor to remove or reassign personnel by providing a notice to Contractor.
12. **Background Checks.** Upon request, Contractor must perform background checks on all employees and subcontractors and its employees prior to their assignment. The scope is at the discretion of the State and documentation must be provided as requested. Contractor is responsible for all costs associated with the requested background checks. The State, in its sole discretion, may also perform background checks.
13. **Assignment.** Contractor may not assign this Contract to any other party without the prior approval of the State. Upon notice to Contractor, the State, in its sole discretion, may assign in whole or in part, its rights or responsibilities under this Contract to any other party. If the State determines that a novation of the Contract to a third party is necessary, Contractor will agree to the novation and provide all necessary documentation and signatures.
14. **Change of Control.** Contractor will notify, at least 90 calendar days before the effective date, the State of a change in Contractor's organizational structure or ownership. For purposes of this Contract, a change in control means any of the following: (a) a sale of more than 50% of Contractor's stock; (b) a sale of substantially all of Contractor's assets; (c) a change in a majority of Contractor's board members; (d) consummation of a merger or consolidation of Contractor with any other entity; (e) a change in ownership through a transaction or series of transactions; (f) or the board (or the stockholders) approves a plan of complete liquidation. A change of control does not include any consolidation or merger effected exclusively to change the domicile of Contractor, or any transaction or series of transactions principally for bona fide equity financing purposes.

In the event of a change of control, Contractor must require the successor to assume this Contract and all of its obligations under this Contract.

15. **Ordering.** Contractor is not authorized to begin performance until receipt of authorization as identified in Schedule A.
16. **Acceptance.** Contract Activities are subject to inspection by the State within 30 calendar days of the State's receipt of them ("**State Review Period**"), unless otherwise provided in Schedule A. If the Contract Activities are not fully accepted by the State, the State will notify Contractor by the end of the State Review Period that either: (a) the Contract Activities are accepted, but noted deficiencies must be corrected; or (b) the Contract Activities are rejected. If the State finds material deficiencies (deficiencies in the Contract Activities that make them unusable to the State), it may: (i) reject the Contract Activities without performing any further inspections; (ii) demand performance at no additional cost; or (iii) terminate this Contract in accordance with Section 23, Termination for Cause.

Within 10 business days from the date of Contractor's receipt of notification of acceptance with deficiencies or rejection of any Contract Activities, Contractor must cure, at no additional cost, the deficiency and deliver unequivocally acceptable Contract Activities to the State. If acceptance with deficiencies or rejection of the Contract Activities impacts the content or delivery of other non-completed Contract Activities, the parties' respective Contract Administrators, or Program Managers, as applicable, must determine an agreed to number of days for re-submission that minimizes the overall impact to the Contract. However, nothing herein affects, alters, or relieves Contractor of its obligations to correct deficiencies in accordance with the time response standards set forth in this Contract.

If Contractor is unable or refuses to correct the deficiency within the time response standards set forth in this Contract, the State may cancel the order in whole or in part.

17. **Reserved.**
18. **Reserved.**
19. **Reserved.**

- 20. Terms of Payment.** Invoices must conform to the requirements communicated from time-to-time by the State. All undisputed amounts are payable within 45 days of the State's receipt. Contractor may only charge for Contract Activities performed as specified in Schedule A. Invoices must include an itemized statement of all charges, as applicable for time and materials or cost reimbursable work. The State is exempt from State sales tax for direct purchases and may be exempt from federal excise tax, if Services purchased under this Agreement are for the State's exclusive use. Notwithstanding the foregoing, all prices are inclusive of taxes, and Contractor is responsible for all sales, use and excise taxes, and any other similar taxes, duties and charges of any kind imposed by any federal, state, or local governmental entity on any amounts payable by the State under this Contract.

The State has the right to withhold payment of any disputed amounts until the parties agree as to the validity of the disputed amount. The State will notify Contractor's Contractor Administrator of any dispute within a reasonable time. Payment by the State will not constitute a waiver of any rights as to Contractor's continuing obligations, including claims for deficiencies or substandard Contract Activities. Contractor's acceptance of final payment by the State constitutes a waiver of all claims by Contractor against the State for payment under this Contract, other than those claims previously filed in writing on a timely basis and still disputed.

The State will only disburse payments under this Contract through Electronic Funds Transfer (EFT). Contractor must register with the State at <http://www.michigan.gov/SIGMAVSS> to receive electronic fund transfer payments. If Contractor does not register, the State is not liable for failure to provide payment. Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract.

- 21. Reserved.**

- 22. Stop Work Order.** The State may suspend any or all activities under the Contract at any time. The State will provide Contractor a written stop work order detailing the suspension. Contractor must comply with the stop work order upon receipt. Within 90 calendar days, or any longer period agreed to by Contractor, the State will either: (a) issue a notice authorizing Contractor to resume work, or (b) terminate the Contract or purchase order. The State will not pay for Contract Activities, Contractor's lost profits, or any additional compensation during a stop work period.

- 23. Termination for Cause.** The State may terminate this Contract for cause, in whole or in part, if Contractor, as determined by the State: (a) endangers the value, integrity, or security of any location, data, or personnel; (b) becomes insolvent, petitions for bankruptcy court proceedings, or has an involuntary bankruptcy proceeding filed against it by any creditor; (c) engages in any conduct that may expose the State to liability; (d) breaches any of its material duties or obligations; or (e) fails to cure a breach within the time stated in a notice of breach. Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

If the State terminates this Contract under this Section, the State will issue a termination notice specifying whether Contractor must: (a) cease performance immediately, or (b) continue to perform for a specified period. If it is later determined that Contractor was not in breach of the Contract, the termination will be deemed to have been a Termination for Convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in Section 24, Termination for Convenience.

The State will only pay for amounts due to Contractor for Contract Activities accepted by the State on or before the date of termination, subject to the State's right to set off any amounts owed by the Contractor for the State's reasonable costs in terminating this Contract. The Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees, court costs, transition costs.

- 24. Termination for Convenience.** The State may immediately terminate this Contract in whole or in part without penalty and for any reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must: (a) cease performance of the Contract Activities immediately, or (b) continue to perform the Contract Activities in accordance with Section 25, Transition Responsibilities. If the State terminates this Contract for convenience, the State will pay all reasonable costs, as determined by the State, for State approved Transition Responsibilities.

- 25. Transition Responsibilities.** Upon termination or expiration of this Contract for any reason, Contractor must, for a period of time specified by the State (not to exceed 120 calendar days), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Contract Activities to continue without interruption or adverse effect, and to facilitate the orderly transfer of such Contract Activities to the State or its designees. Such transition assistance may include, but is not limited

to: (a) continuing to perform the Contract Activities at the established Contract rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable Contract Activities, training, equipment, software developed specifically for the state of Michigan, leases, reports and other documentation, to the State or the State's designee; (c) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return to the State all materials, data, property, and confidential information provided directly or indirectly to Contractor by any entity, agent, vendor, or employee of the State; and (d) preparing an accurate accounting from which the State and Contractor may reconcile all outstanding accounts (collectively, "**Transition Responsibilities**"). This Contract will automatically be extended through the end of the transition period.

- 26. General Indemnification.** Each party shall be responsible for its negligent acts or omissions and the negligent acts or omissions of its employees, officers, or directors, to the extent allowed by law.

To the extent that Contractor uses subcontractors to perform any Contract Activities, Contractor require any subcontractors to defend, indemnify and hold the State, its departments, divisions, agencies, offices, commissions, officers, and employees harmless, without limitation, from and against any and all actions, claims, losses, liabilities, damages, costs, attorney fees, and expenses (including those required to establish the right to indemnification), arising out of or relating to: (a) any breach by Contractor's subcontractors of any of the promises, agreements, representations, warranties, or insurance requirements contained in this Contract; (b) any infringement, misappropriation, or other violation of any intellectual property right or other right of any third party; (c) any bodily injury, death, or damage to real or tangible personal property occurring wholly or in part due to action or inaction by Contractor's subcontractors; and (d) any acts or omissions of Contractor's subcontractors

The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations.

The State is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; (iii) employ its own counsel; and to (iv) retain control of the defense if the State deems necessary. Contractor will not, without the State's written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. To the extent that any State employee, official, or law may be involved or challenged, the State may, at its own expense, control the defense of that portion of the claim.

Any litigation activity on behalf of the State, or any of its subdivisions under this Section, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

- 27. Infringement Remedies.** If, in either party's opinion, any piece of equipment, software, commodity, or service supplied by Contractor or its subcontractors, or its operation, use or reproduction, is likely to become the subject of a copyright, patent, trademark, or trade secret infringement claim, Contractor must, at its expense (a) procure for the State the right to continue using the equipment, software, commodity, or service, or if this option is not reasonably available to Contractor, (b) replace or modify the same so that it becomes non-infringing; or (c) accept its return by the State with appropriate credits to the State against Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.
- 28. Limitation of Liability.** Neither State nor Contractor is liable for consequential, incidental, indirect, or special damages, regardless of the nature of the action.
- 29. Disclosure of Litigation, or Other Proceeding.** Contractor must notify the State within 14 calendar days of receiving notice of any litigation, investigation, arbitration, or other proceeding (collectively, "**Proceeding**") involving a subcontractor, or an officer or director of r subcontractor, that arises during the term of the Contract, including: (a) a criminal Proceeding; (b) a parole or probation Proceeding; (c) a Proceeding under the Sarbanes-Oxley Act; (d) a civil Proceeding involving: (1) a claim that might reasonably be expected to adversely affect Contractor's viability or financial stability; or (2) a governmental or public entity's claim or written allegation of fraud; or (e) a Proceeding involving any license that Contractor or Subcontractor is required to possess in order to perform under this Contract.
- 30. Reserved.**
- 31. Non-Disclosure of Confidential Information.** The parties acknowledge that each party may be exposed to or acquire communication or data of the other party that is confidential, privileged

communication not intended to be disclosed to third parties. The provisions of this Section survive the termination of this Contract.

- a. Meaning of Confidential Information. For the purposes of this Contract, the term "**Confidential Information**" means all information and documentation of a party that: (a) has been marked "confidential" or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked "confidential" or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked "confidential" or with words of similar meaning; and, (c) should reasonably be recognized as confidential information of the disclosing party. The term "Confidential Information" does not include any information or documentation that was: (a) subject to disclosure under the Michigan Freedom of Information Act (FOIA); (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party's proprietary rights; (d) obtained from a source other than the disclosing party without an obligation of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure by, through, or on behalf of, the receiving party).
- b. Obligation of Confidentiality. The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to a subcontractor is permissible where: (a) use of a subcontractor is authorized under this Contract; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the subcontractor's responsibilities; and (c) Contractor obligates the subcontractor in a written contract to maintain the State's Confidential Information in confidence. At the State's request, any employee of Contractor or any subcontractor may be required to execute a separate agreement to be bound by the provisions of this Section.
- c. Cooperation to Prevent Disclosure of Confidential Information. Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party immediately in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract and each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.
- d. Remedies for Breach of Obligation of Confidentiality. Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, in the case of the State, at the sole election of the State, the immediate termination, without liability to the State, of this Contract or any Statement of Work corresponding to the breach or threatened breach.
- e. Surrender of Confidential Information upon Termination. Upon termination of this Contract or a Statement of Work, in whole or in part, each party must, within 5 calendar days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party's possession, custody, or control; provided, however, that Contractor must return State Data to the State following the timeframe and procedure described further in this Contract. Should Contractor or the State determine that the return of any Confidential Information is not feasible, such party must destroy the Confidential Information and must certify the same in writing within 5 calendar days from the date of termination to the other party. However, the State's legal ability to destroy Contractor data may be restricted by its retention and disposal schedule, in which case Contractor's Confidential Information will be destroyed after the retention period expires.

32. **Reserved.**

33. **Reserved.**

34. **Reserved.**

35. **Records Maintenance, Inspection, Examination, and Audit.** The State or its designee may audit Contractor to verify compliance with this Contract. Contractor must retain, and provide to the State or its designee and the auditor general upon request, all financial and accounting records related to the Contract through the term of the Contract and for 3 years after the latter of termination, expiration, or final payment under this Contract or any extension ("**Audit Period**"). If an audit, litigation, or other action involving the records is initiated before the end of the Audit Period, Contractor must retain the records until all issues are resolved.

Within 10 calendar days of providing notice, the State and its authorized representatives or designees have the right to enter and inspect Contractor's premises or any other places where Contract Activities are being performed, and examine, copy, and audit all records related to this Contract. Contractor must cooperate and provide reasonable assistance. If any financial errors are revealed, the amount in error must be reflected as a credit or debit on subsequent invoices until the amount is paid or refunded. Any remaining balance at the end of the Contract must be paid or refunded within 45 calendar days.

This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.

36. **Representations.** Contractor represents and warrants: (a) Contractor is the owner or licensee of any Contract Activities that it licenses, sells, or develops and Contractor has the rights necessary to convey title, ownership rights, or licensed use; (b) all Contract Activities are delivered free from any security interest, lien, or encumbrance and will continue in that respect; (c) the Contract Activities will not knowingly or intentionally infringe the patent, trademark, copyright, trade secret, or other proprietary rights of any third party; (d) Contractor must assign or otherwise transfer to the State or its designee any manufacturer's warranty for the Contract Activities, as applicable; (e) the Contract Activities are merchantable and fit for the specific purposes, as applicable and identified in the Contract; (f) the Contract signatory has the authority to enter into this Contract; (g) all information furnished by Contractor in connection with the Contract fairly and accurately represents Contractor's business, properties, finances, and operations as of the dates covered by the information, and Contractor will inform the State of any material adverse changes; (h) all information furnished and representations made in connection with the award of this Contract is true, accurate, and complete, and contains no false statements or omits any fact that would make the information misleading; and (i) Contractor is neither currently engaged in nor will engage in the boycott of a person based in or doing business with a strategic partner as described in 22 USC 8601 to 8606. A breach of this Section is considered a material breach of this Contract, which entitles the State to terminate this Contract under Section 23, Termination for Cause.

37. **Conflicts and Ethics.** Contractor will uphold high ethical standards and is prohibited from: (a) holding or acquiring an interest that would conflict with this Contract; (b) doing anything that creates an appearance of impropriety with respect to the award or performance of the Contract; (c) attempting to influence or appearing to influence any State employee by the direct or indirect offer of anything of value; or (d) paying or agreeing to pay any person, other than employees and consultants working for Contractor, any consideration contingent upon the award of the Contract. Contractor must immediately notify the State of any violation or potential violation of these standards. This Section applies to Contractor, any parent, affiliate, or subsidiary organization of Contractor, and any subcontractor that performs Contract Activities in connection with this Contract.

38. **Compliance with Laws.** Contractor must comply with all federal, state and local laws, rules and regulations.

39. **Reserved.**

40. **Reserved.**

41. **Nondiscrimination.** Under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, *et seq.*, and the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, *et seq.*, Contractor and its subcontractors agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, or mental or physical disability. Breach of this covenant is a material breach of this Contract.

42. **Unfair Labor Practice.** Under MCL 423.324, the State may void any Contract with a Contractor or subcontractor who appears on the Unfair Labor Practice register compiled under MCL 423.322.

43. **Governing Law.** This Contract is governed, construed, and enforced in accordance with Michigan law, excluding choice-of-law principles, and all claims relating to or arising out of this Contract are governed by Michigan law, excluding choice-of-law principles. Any dispute arising from this Contract must be resolved in Michigan Court of Claims. Contractor consents to venue in Ingham County, and waives any objections, such as lack of personal jurisdiction or *forum non conveniens*. Contractor must appoint agents in Michigan to receive service of process.
44. **Non-Exclusivity.** Nothing contained in this Contract is intended nor will be construed as creating any requirements contract with Contractor. This Contract does not restrict the State or its agencies from acquiring similar, equal, or like Contract Activities from other sources.
45. **Force Majeure.** Neither party will be in breach of this Contract because of any failure arising from any disaster or acts of god that are beyond their control and without their fault or negligence. Each party will use commercially reasonable efforts to resume performance. Contractor will not be relieved of a breach or delay caused by its subcontractors. If immediate performance is necessary to ensure public health and safety, the State may immediately contract with a third party, at no cost to MSU.
46. **Dispute Resolution.** The parties will endeavor to resolve any Contract dispute in accordance with this provision. The dispute will be referred to the parties' respective Contract Administrators or Program Managers. Such referral must include a description of the issues and all supporting documentation. The parties must submit the dispute to a senior executive if unable to resolve the dispute within 15 business days. The parties will continue performing while a dispute is being resolved, unless the dispute precludes performance. A dispute involving payment does not preclude performance.

Litigation to resolve the dispute will not be instituted until after the dispute has been elevated to the parties' senior executive and either concludes that resolution is unlikely, or fails to respond within 15 business days. The parties are not prohibited from instituting formal proceedings: (a) to avoid the expiration of statute of limitations period; (b) to preserve a superior position with respect to creditors; or (c) where a party makes a determination that a temporary restraining order or other injunctive relief is the only adequate remedy. This Section does not limit the State's right to terminate the Contract.

47. **Reserved.**
48. **Website Incorporation.** The State is not bound by any content on Contractor's website unless expressly incorporated directly into this Contract.
49. **Entire Agreement and Order of Precedence.** This Contract, which includes Schedule A – Statement of Work, and expressly incorporated schedules and exhibits, is the entire agreement of the parties related to the Contract Activities. This Contract supersedes and replaces all previous understandings and agreements between the parties for the Contract Activities. If there is a conflict between documents, the order of precedence is: (a) first, this Contract, excluding its schedules, exhibits, and Schedule A – Statement of Work; (b) second, Schedule A – Statement of Work as of the Effective Date; and (c) third, schedules expressly incorporated into this Contract as of the Effective Date. NO TERMS ON CONTRACTOR'S INVOICES, ORDERING DOCUMENTS, WEBSITE, BROWSE-WRAP, SHRINK-WRAP, CLICK-WRAP, CLICK-THROUGH OR OTHER NON-NEGOTIATED TERMS AND CONDITIONS PROVIDED WITH ANY OF THE CONTRACT ACTIVITIES WILL CONSTITUTE A PART OR AMENDMENT OF THIS CONTRACT OR IS BINDING ON THE STATE or a Contractor FOR ANY PURPOSE. ALL SUCH OTHER TERMS AND CONDITIONS HAVE NO FORCE AND EFFECT AND ARE DEEMED REJECTED BY THE STATE, and the Contractor EVEN IF ACCESS TO OR USE OF THE CONTRACT ACTIVITIES REQUIRES AFFIRMATIVE ACCEPTANCE OF SUCH TERMS AND CONDITIONS.
50. **Severability.** If any part of this Contract is held invalid or unenforceable, by any court of competent jurisdiction, that part will be deemed deleted from this Contract and the severed part will be replaced by agreed upon language that achieves the same or similar objectives. The remaining Contract will continue in full force and effect.
51. **Waiver.** Failure to enforce any provision of this Contract will not constitute a waiver.
52. **Survival.** The provisions of this Contract that impose continuing obligations, including warranties and representations, termination, transition, insurance coverage, indemnification, and confidentiality, will survive the expiration or termination of this Contract.
53. **Contract Modification.** This Contract may not be amended except by signed agreement between the parties (a "**Contract Change Notice**"). Notwithstanding the foregoing, no subsequent Statement of Work

or Contract Change Notice executed after the Effective Date will be construed to amend this Contract unless it specifically states its intent to do so and cites the section or sections amended.

STATE OF MICHIGAN

Contract No. 171 18000000169
Natural Heritage Conservation Planning Services - Statewide and specifically Michigan
Department of Natural Resources (DNR), Michigan Department of Environmental Quality (DEQ)
and Michigan Department of Transportation (MDOT)

SCHEDULE A STATEMENT OF WORK CONTRACT ACTIVITIES

BACKGROUND

The Michigan Department of Natural Resources (DNR) requires professional botanical, zoological, and ecological conservation planning services. These services assist the DNR with our mission to protect and conserve the natural resources of the state. The DNR uses these services in their Wildlife, Forest Resources, Fisheries and Parks and Recreation Divisions. These services will also be used by the Michigan Department of Transportation (MDOT) and the Michigan Department of Environmental Quality (DEQ) to help them meet their responsibilities under the State Natural Resources and Environmental Protection Act (NREPA) and the National Environmental Policy Act (NEPA). Other state departments may be added to this Contract as the need arises.

Each Agency utilizing this Contract will be assigned their own Program Manager to coordinate services with the Contractor. For consulting, data collection, monitoring, field work, project management, and conservation and planning services, the Contractor will work with the Agency Program Manager through the development of a Work Plan.

It is anticipated that the Contractor will provide approximately 30,000 hours of service each year. The 30,000 estimated hours would likely be broken down into the following areas:

Project Management Oversight:	5%
Database Management and Information Technology:	20%
Zoological Expertise:	15%
Botanical Expertise:	15%
Aquatic Ecology:	10%
Terrestrial Ecology:	20%
Conservation Planning and Education:	15%

SCOPE

This is a Statewide Contract for the Contractor to provide database management and access and expert consulting services, data collection, monitoring, field work, project management, and conservation and planning services. The Contractor must provide these services regarding all aspects of professional botanical, zoological, and ecological conservation planning services across the State of Michigan specific to threatened, endangered, and of special concern plant and animal species and natural communities, in order to comply with NEPA.

1. REQUIREMENTS

A. General:

- 1) The Contractor is responsible for maintaining high quality working relationships with botanical, zoological, and ecological experts from State and Federal agencies, universities and consulting firms to meet or exceed requirements in Schedule A. These relationships should facilitate data exchange via easy-to-use online tools to reduce the complexity and expense of getting information into BIOTICS to improve its authoritative and comprehensive nature.
- 2) The Contractor must be a constituent member in good standing of NatureServe.
- 3) Most of the Contractor's staff will be housed within the DNR's headquarters in Lansing, Michigan and will use DNR networks, and other infrastructure, and must comply with the State's technology standards for hardware and software.

B. DATABASE MANAGEMENT AND INFORMATION TECHNOLOGY

The Natural Heritage Database (NHD) (currently using BIOTICS software) should be the most comprehensive and authoritative sources of information available on Michigan's rare species.

- 1) The Contractor must develop and manage the database of locations and attributes of observations of threatened, endangered, and of special concern plant and animal species, natural communities, and other selected taxonomic groups using NatureServe standards.
- 2) The Contractor must transfer of data to and/or from a variety of sources to the NHD.
- 3) The Contractor must have demonstrated expertise using BIOTICS (NatureServe's biodiversity data management software); a sophisticated data model implemented in an Oracle database.
- 4) The Contractor will be responsible for maintaining and populating the NHD with occurrences of threatened, endangered, and of special concern plant and animal species and natural communities.
- 5) The Contractor must integrate, and have demonstrated expertise in integrating the NHD(or similar), output to geographic information system (GIS) applications that support basic digital mapping, spatial analyses, and data visualization that is easy to access by Agencies' staff.
- 6) The Contractor must provide access to all fields in the NHD database desired by State Agencies to meet their business needs.
- 7) The Contractor must provide access to the spatial and tabular data in the NHD.
- 8) The Contractor must provide all hardware, software, network connectivity and interfaces for any NHD. The Contractor is responsible for all, including but not limited to, data entry, maintenance, back-up and recovery of the service.
- 9) The Contractor must provide all data and reports to State via a web browser, Microsoft Internet Explorer version 9.0 or later No additional software or hardware will be required for the State.
 - a. The Contractor's options available to receive data and reports:

The Contractor is able to receive information for inclusion in the Natural Heritage Database in a variety of ways, including: ESRI Feature Services, In-person office consultations, geodatabases, shapefiles, spreadsheets, printed maps, museum records, PDF's of original field survey forms and database element occurrence records. For delivery of reports the Contractor will provide data to the State via GDSE drive via ESRI Feature Services.
- 10) Any modifications to the reporting system need to be transparent to State and not require any updates on State computers or devices.
- 11) Access to data and reports from Contractor's NHD will operate 24 hours a day, 7 days a week, but must be available 99% of the time.
 - a. Any interruptions in service over 30 minutes must be reported to Program Manager or designee with the following:
 - i. Length of interruption
 - ii. Reason for interruption
 - iii. Resolution and estimated time to resolve
 - iv. Within 24 hours of problem resolution and restart, the Contractor must prepare and submit a report to the Contract Compliance Inspector or designee indicating elapsed downtime hours, start/end timeframes, reason for the outage, impact on the systems (lost data, etc.) for each occurrence and resolution to mitigate future occurrences.
 - b. The Contractor must notify the Program Manager seven days in advance of any scheduled downtime.
- 12) The system response time for the end-user should not be excessively long. Data must populate within ten seconds, and reports must populate within one minute.

The Contractor's normal processing time for the web database will deliver query responses in an average of 1.8 seconds. Delivery of NHD data to the GDSE is a streaming service, so delivery will be continuous.

- 13) The Contractor's server system must support the number of users necessary to accomplish all Contract services.
- 14) The system must accommodate each user with a unique log-on ID and password.
- 15) All system upgrades will be provided to the users at no additional cost during the term of the Contract.
- 16) The Contractor is responsible for backing up the data at least daily.
 - a. The Contractor must provide a disaster recovery plan and business continuity plan.

Daily backups of the Contractor's servers and disaster recovery will be provided by the Contractor's College of Agriculture and Natural Resources Technology Services. Backups of Natural Heritage Database will be performed by NatureServe. Both servers will have nightly full backups of SQL and files that can be retrieved if a data loss ever occurred. Restoration would be from off-site backup. In the event of a corruption/loss of the server itself, restoration would be from a Hyper-V backup. Both restorations can be completed within one business day.

- b. The reporting tools must to be available no more than 5 business days after a disaster.
- 17) The Contractor's architecture of their hardware configuration, architecture and infrastructure of the system:

The Contractor's hardware architecture includes a web server running Windows Server 2012 with Microsoft Internet Information Services and Coldfusion 11; and a database server running Windows Server 2012 with Microsoft SQL Server 2014 and ESRI ArcGIS for Server 10. Both servers are virtual machines hosted by MSU College of Agriculture and Natural Resources Technology Services.

- a. Contractor's frequency of system upgrades and date of the last major upgrade:

Contractor will patch systems monthly and upgrade as needed. Virtualization hosts are updated to Windows 2016 Hyper-V upgrade. There have been no major upgrades since the servers were built in December of 2014.

- b. Reserved.

- 18) The Contractor must work with the State and other contractors to perform services/deliverables, assist in problem resolutions including, but not limited to, establishing new communications channels, downtime, testing, etc. (i.e. DTMB, information technology systems contractors, etc.).

C. CONSULTING SERVICES

- 1) The Contractor must provide zoological and botanical expertise and aquatic and terrestrial ecology expertise.
 - a. The Contractor must provide information transfer on threatened, endangered, and of special concern plant and animal species and natural communities in accepted formats to the State, local units of government, and other interested parties. This is often in the form of reports, presentations, and memorandums.
 - b. The Contractor must provide technical advice on threatened, endangered, and of special concern plant and animal species and natural communities. This is often verbal but can also include advice documented through reports, presentations, and memorandums.

D. DATA COLLECTION, MONITORING AND FIELD WORK

- 1) The Contractor must perform field surveys, monitoring, and inventory work on threatened, endangered, and of special concern plant and animal species and natural communities. Work may include surveys for a single species within a very small area (1 -100 acres) like

a forest stand. Work may also include surveying for multiple species and ecological communities over extensive geographic areas (100s – 10,000s of acres) such as an entire State Game Area or State Forest compartment. Work may include a single site visit to verify presence of a species or a community. Work may also include repeated visits to sites to monitor the status of a species or community over time. Inventory work includes creation of detail descriptions and collection of extensive data on the status of species, vegetation, and ecological communities.

- 2) Related field work will occur statewide in both aquatic and terrestrial habitats. The State will not provide the Contractor with vehicles or administrative support necessary to perform the services of this Contract.

E. Conservation and Planning Services

- 1) The Contractor must provide conservation planning and education services.
- 2) The Contractor must provide Wildlife Action Plan (WAP) implementation support by providing expertise in assisting the State with the actions laid out in the WAP including training of the management of rare species habitats and support in the development of rare species management plans.
- 3) The Contractor must develop conservation plans focused on priority habitats or priority landscapes that support species of greatest conservation need identified in the WAP.
- 4) The Contractor must develop information, outreach, and educational materials on subjects including species and community abstracts, how the public should report rare species observations, and educational materials for classrooms.
 - a. For printed materials, the Contractor must quote the fixed cost separately on Work Plans. If it is determined that printed materials must be outsourced, it is subject to the terms in Section 3.7 Disclosure of Subcontractors.

F. WORK PLANS

- 1) In collaboration with the Program Manager, the Contractor must develop detailed work plans for consulting projects that describe how the project will be completed and what deliverables are expected. Projects will vary in length from a few months to the entire duration of the Contract.
- 2) Work Plans must include but not be limited to the following:
 - b. Objectives
 - c. Expected Benefits
 - d. Approach to accomplishing tasks, subtask (e.g. brief discussion of proposed methods for surveying, monitoring, inventorying, planning, or educating)
 - e. Timeline
 - f. Deliverables
 - g. Location of work
 - h. Reporting
 - i. Budget – Fixed Price
 - j. Final Report content
 - k. Waived indirect cost percentage (DNR specific)
- 3) The Contractor must obtain Program Manager approval of the work plans. The Contractor shall not begin any work on any project before the Program Manager has given formal approval and a work/expense authorization/purchase order has been issued and signed.
- 4) Specifically for DNR work plans, the Contractor must provide waived indirect cost percents on all services. Waiving of indirect costs is predicated on the DNR providing facility space for Contractor Staff, computing system access, and other administrative support. Waiving indirect costs provides a source of match to the DNR allowing them to take advantage of certain federal funding opportunities, such as State and Tribal Wildlife Grants. Indirect costs are identified separately and not built into hourly project rates.

1.1. Transition

If the State terminates the Contract, for convenience or cause, or if the Contract is otherwise dissolved, voided rescinded, nullified, expires or rendered unenforceable, the Contractor agrees to comply with direction provided by the State to assist in the orderly transition of equipment, services, deliverables,

software, leases, etc. to the State or a third party designated by the State, if applicable. If the Contract expires or terminates, the Contractor agrees to make all reasonable efforts to affect an orderly transition of services and deliverables within a reasonable period of time that in no event will exceed 120 days. These efforts must include, but are not limited to, those listed in Section 25 of the Standard Contract Terms.

1.2. Training

- A. The Contractor must provide training, support and training materials as designated by the Program Manager on the Contractor's database in the event of a Contractor database change throughout the term of the Contract (See also Section 4.1).
 - 1) The Contractor must provide upon request of the State, specialized training on interpreting heritage methodology, interpretation and use of heritage spatial data and detailed instruction and assistance in connecting to Contractor feature services. The Contractor must also facilitate the reporting of information for inclusion in the NHD. All training handouts, instructions sheets and consultation contacts must be made available for the State staff utilizing the NHD in their decision-making processes. The exact requirements and time may vary, and is to be processed as a Change Notice to the Contract and issuance of a Purchase Order.

2. Acceptance

2.1. Acceptance, Inspection and Testing

The State will use the following criteria to determine acceptance of the Contract Activities:

- A. For Consulting, Data Collection, Monitoring, Field Work, Project Management, and Conservation and Planning Services, payment will be made based on Program Manager approval of the following milestones:
 - 1) 20% upon receipt of a detailed final Work Plan
 - 2) 30% when project is 50% complete, as determined by the Program Manager.
 - 3) 50% upon completion of project.
- B. For Hosting, Maintenance and Data Access Fee, payment will be made quarterly based on the fixed annual rate.

3. Staffing

3.1. Contractor Representative

The Contractor must appoint a Contractor Representative, specifically assigned to this Contract, that will respond to State inquiries regarding the Contract Activities, answering questions related to ordering and delivery, etc. (the "Contractor Representative").

The Contractor must notify the Contract Administrator at least 30 calendar days before removing or assigning a new Contractor Representative.

Contractor's Representative:

Brian Klatt
Phone: 517-284-6195
Email: klattb@msu.edu

3.4. Work Hours

The Contractor must provide Contract Activities during the State's normal working hours Monday – Friday, 7:00 a.m. to 6:00 p.m. EST, and possible night and weekend hours depending on the requirements of the project.

3.5. Key Personnel

- A. The Contractor must appoint individuals who will be directly responsible for the day-to-day operations of the Contract ("Key Personnel"). Key Personnel must be specifically assigned to the State account, be knowledgeable on the contractual requirements, and respond to State inquiries within three business days of receipt of the inquiry.
The Contractor's Key Personnel must have expertise in the following areas:

Areas of Expertise:

Project Management Oversight
Database Management and Information Technology
Zoological Expertise
Botanical Expertise
Aquatic Ecology
Terrestrial Ecology
Conservation Planning and Education

Position	Name	Role(s) / Responsibilities	Direct / Subcontract / Contract	FT/ PT/ T	% of Work Time	Physical Location
Director	Brian Klatt	Administrator, Principal Investigator	Direct	FT	100	Constitution Hall
Science Coordinator	Michael Monfils	Coordinates scientists, Supervisor, Principal Investigator	Direct	FT	100	Constitution Hall
Lead Aquatic Ecologist	Peter Badra	Lead scientist for heritage methodology relating to aquatic ecology, Principal Investigator	Direct	FT	100	Constitution Hall
Lead Ecologist	Joshua Cohen	Lead scientist for heritage methodology relating to terrestrial ecology, Principal Investigator	Direct	FT	100	Constitution Hall
Lead Zoologist	David Cuthrell	Lead scientist for heritage methodology relating to zoology, Principal Investigator	Direct	FT	100	Constitution Hall
Lead Conservation Education	Phyllis Higman	Lead scientist for conservation education, Botanist Principal Investigator	Direct	FT	100	Constitution Hall
Lead Conservation Planning	John Paskus	Lead scientist for conservation planning, Principal Investigator	Direct	FT	100	Constitution Hall
Manager GIS Services	Rebecca Rogers	Supervisor of IT staff, Database Manager, GIS Lead	Direct	FT	100	Constitution Hall

B. Reserved

C. The State has the right to recommend and approve in writing the initial assignment, as well as any proposed reassignment or replacement, of any Key Personnel. Before assigning an individual to any Key Personnel position, Contractor will notify the State of the proposed assignment, introduce the individual to the State's Project Manager, and provide the State with a resume and any other information about the individual reasonably requested by the State. The State reserves the right to interview the individual before granting written approval. In the event the State finds a proposed individual unacceptable, the State will provide a written explanation including reasonable detail outlining the reasons for the rejection. The State may require a 30-calendar day training period for replacement personnel.

D. Contractor will not remove any Key Personnel from their assigned roles on this Contract without the prior written consent of the State. The Contractor's removal of Key Personnel without the prior written consent of the State is an unauthorized removal ("Unauthorized Removal"). An Unauthorized Removal does not include replacing Key Personnel for reasons beyond the reasonable control of Contractor, including illness, disability, leave of absence, personal emergency circumstances, resignation, or for cause termination of the Key Personnel's employment. Any Unauthorized Removal may be considered by the State to be a material breach of this Contract, in respect of which the State may elect to terminate this Contract for cause under Termination for Cause in the Standard Terms. It is further acknowledged that an Unauthorized Removal will interfere with the timely and proper completion of this Contract, to the loss and damage of the State, and that it would be impracticable and extremely difficult to fix the actual damage sustained by the State as a result of any Unauthorized Removal. Therefore, Contractor and the State agree that in the case of any Unauthorized Removal in respect of which the State does not elect to exercise its rights under Termination for Cause, Contractor will issue to the State the corresponding credits set forth below (each, an "Unauthorized Removal Credit"):

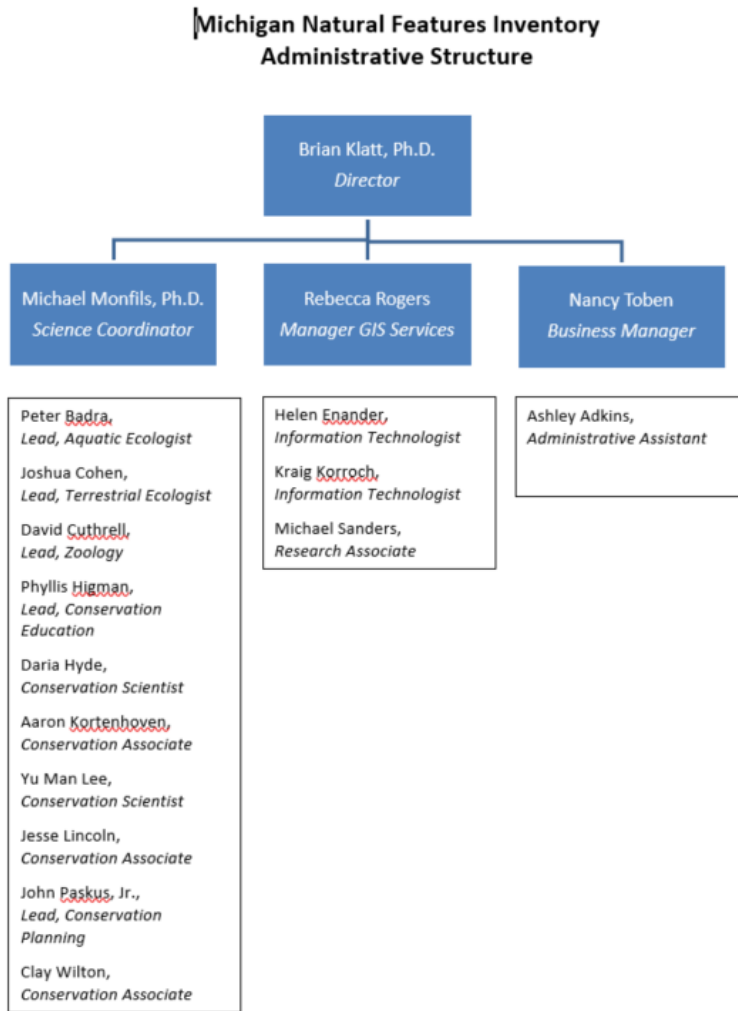
(i) For the Unauthorized Removal of any Key Personnel designated in the applicable Statement of Work, the credit amount will be \$25,000.00 per individual if Contractor identifies a replacement approved by the State and assigns the replacement to shadow the Key Personnel who is leaving for a period of at least 30 calendar days before the Key Personnel's removal.

(ii) If Contractor fails to assign a replacement to shadow the removed Key Personnel for at least 30 calendar days, in addition to the \$25,000.00 credit specified above, Contractor will credit the State \$833.33 per calendar day for each day of the 30 calendar-day shadow period that the replacement Key Personnel does not shadow the removed Key Personnel, up to \$25,000.00 maximum per individual. The total Unauthorized Removal Credits that may be assessed per Unauthorized Removal and failure to provide 30 calendar days of shadowing will not exceed \$50,000.00 per individual.

E. Contractor acknowledges and agrees that each of the Unauthorized Removal Credits assessed above: (i) is a reasonable estimate of and compensation for the anticipated or actual harm to the State that may arise from the Unauthorized Removal, which would be impossible or very difficult to accurately estimate; and (ii) may, at the State's option, be credited or set off against any fees or other charges payable to Contractor under this Contract.

3.6. Organizational Chart

The Contractor's overall organizational chart that details staff members, by name and title, and subcontractors:



3.7. Disclosure of Subcontractors

A. If printing is to be outsourced the Contractor will propose, or the Contractor and the State will jointly identify printing subcontractors. The Contractor must select printing subcontractors on a competitive basis to the maximum practical extent consistent with the objectives and requirements of this Contract. Any subcontractor must be agreed to by the State and an amendment to the Contract is

required via Contract Change Notice. See Standard Contract Terms Section 10 Subcontracting, and Section 54 Entire Contract and Modification.

- B. If the Contractor intends to utilize subcontractors, the Contractor must disclose the following:
1. The legal business name; address; telephone number; a description of subcontractor's organization and the services it will provide; and information concerning subcontractor's ability to provide the Contract Activities.
 2. The relationship of the subcontractor to the Contractor.
 3. Whether the Contractor has a previous working experience with the subcontractor. If yes, provide the details of that previous relationship.
 4. A complete description of the Contract Activities that will be performed or provided by the subcontractor.

Subcontractors:

- 1) Michigan Aerospace Corporation (MAC)
1777 Highland Drive, Suite B, Ann Arbor, MI 48108-2285 Phone: 734.975.8777
Services: As needed collaboration on projects refining methodologies on invasive species monitoring projects. As needed services such as drones, pilots to fly the drones, and processing the collected data on invasive species using deep learning algorithms.
- 2) Michigan Technology Research Institute (MTRI)
3600 Green Court, Suite 100, Ann Arbor, MI 48105 Phone: 734.913.6840
Services: As needed research collaboration on projects related to vernal pools providing LIDAR and other remote sensing data analyses for the identification of vernal pools and mapping invasive species.
- 3) Michigan Nature Association (MNA)
2310 Science Pkwy, #100 Okemos, MI 48864 Phone: 866.223.2231
Services: As-needed provider of sites for field surveys, and helping organize, promote, and/or conduct vernal pool training workshops and other outreach programs/efforts.
- 4) Cardno Inc.
Headquarters:
Level 9, Green Square, North Tower 515 St Paul's Terrace FORTITUDE VALLEY Qld 4006
Australia

Local:
11181 Marwill Ave. West Olive, MI 49460 Phone: 608.214.7355
Services: As needed, planning, development, construction, management, and environmental services.
- 5) Central Michigan
University
Office of Research and Graduate Studies Foust 251 Mount Pleasant, MI 48859 Phone: 989.774.2492
Services: As needed expertise related to prairie fen, butterfly, and pollinator ecology.
Collaborator on research investigating aspects of prairie fen ecology, including factors influencing plant diversity.
- 6) Wisconsin Department of Natural Resources
101 S Webster St. PO Box 7921 Madison, WI 53707-7921 Phone: 715.685.2933
Services: As needed expertise in rare and declining species and natural communities and research collaboration; responsible for entering and compiling marsh bird data from its statewide survey and provides information about its survey sites.
- 7) Indiana University/Purdue University at Ft Wayne (IPFW)
2101 E. Coliseum Blvd. Fort Wayne, IN 46805 Phone: 260.481.4739
Services: As needed expertise and collaboration on surveys and research related to rare, threatened and endangered plants and animals and natural communities.
- 8) Lisa Marckini-Polk,
Civic Research Services, Inc. (CRS)
1301 E. Dawson Milford, MI 48381 Phone: 248.752.0471
Services: As needed services of conducting evaluations of educational programs, particularly environmental and place-based educational programs, to assess their

effectiveness and impacts on student learning, knowledge, attitudes, and/or behavior. As-needed services of designing and implementing evaluation tools, compiling and analyzing data from evaluations, and providing results and recommendations.

- 9) Kalamazoo Nature Center (KNC)
7000 N Westnedge Ave, Kalamazoo, MI 49009 Phone: 269.381.1574
Services: As needed services in conducting surveys for the eastern massasauga, Conservation Steward's Program, and other educational events, invasive species work.
- 10) DLZ
1425 Keystone Ave. Lansing, MI 48911 Phone: 517.393.6800
Services: As needed assistance with surveys for threatened and endangered plant and animal species, high quality natural communities, and invasive species. As needed services conducting or assisting with surveys for rare species and natural communities, including the eastern massasauga.
- 11) Grand Valley State University (GVSU)
1 Campus Drive
Allendale, MI 49401
Phone: 616.331.5000
Services: As-needed services on surveys related to rare animal species such as the eastern massasauga. As-needed research on related to rare amphibians and reptiles such as the eastern massasauga and copperbelly water snake.
- 12) University of St. Thomas (UST),
Minnesota
2115 summit Avenue St. Paul, MN 55105 Phone: 651.962.5000
Services: As needed collaboration and expertise on surveys and research related to rare amphibians and reptiles.
- 13) Herpetological Resource and Management, LLC (HRM)
1101 S Main St #110 Chelsea, MI 48118 Phone: 313.268.6189
Services: As needed collaboration and expertise on surveys for threatened and endangered animal species, environmental planning, education and outreach.
- 14) Great Lakes Ecological Services, LLC (GLES)
PO Box 375 Slinger, WI 53086-0375 Phone: 262.689.4095
Services: As needed assistance in conducting surveys, monitoring and or research on rare, endangered amphibian and reptile species.
- 15) NatureServe (NS)
4600 N. Fairfax Dr. 7th Floor Arlington, VA 22203 Phone: 703.908.1800
Services: As needed to coordinate the international network of natural heritage programs. As needed expert assistance in providing decision quality data about imperiled species and entire ecosystems, and transforms the data into knowledge products and visualizations.
- 16) Huron Pines
4241 Old US 27 South, Suite 2 Gaylord, MI 49735 Phone: 989.448.2293 ex 21
Services: As needed services of surveying and conducting restoration activities such as dam removal and erosion control.
- 17) Tip of the Mitt Watershed Council
426 Bay Street, Petoskey, MI 49770 Phone: 231.347.1181
Services: As needed collaboration on projects related to protecting the water resources of Antrim, Charlevoix, Cheboygan, and Emmet Counties. Also provide as needed collaboration on projects related to the environmental integrity and economic and aesthetic values of the Great Lakes, inland lakes, rivers and streams, wetlands and groundwater through development of management plans, inventories and surveys, restoration and monitoring.
- 18) North Oakland County Headwaters Conservancy (NOHLC)
P.O. Box 285 Clarkston, MI 48347 Phone: 248.795.2808
Services: As needed collaboration and leadership on projects related to butterfly conservation and invasive species monitoring and management on lands.
- 19) Walloon Lake Trust and Conservancy

P.O. Box 621 Petoskey, MI 49770 Phone: 231.347.0100
Services: As needed collaboration on projects conducting surveys and restoration activities on Walloon Lake land.

- 20) Southeast Michigan Stewardship Coalition
203 Boone Hall, Eastern Michigan University, Ypsilanti, MI 48197 Phone: 734.48732753
Services: As needed services of place-based education and citizen science partnerships with schools and community groups in SE Michigan.
- 21) Little Traverse Bay Band of Odawa (LTBB)
P.O. Box 246, 7500 Odawa Circle, Harbor Springs, MI 49660 Phone: 231.242.1400
Services: As needed services conducting biological and ecological surveys.
- 22) Conservation Resource Alliance (CRA)
10850 E. Traverse Hwy. #1180, Traverse City, MI 49684 Phone: 231.946.6817
Services: As needed restoration expertise and collaboration on projects conducting natural features inventories, FQAs and invasive species surveys.
- 23) Grand Traverse Conservation District
1450 Cass Rd., Traverse City, MI 49685 Phone: 231.941.0960
Services: As needed collaboration in education, invasive species, and monitoring.
- 24) Michigan Association of Conservation Districts
3001 Coolidge Rd. Suite 250, East Lansing, MI 48823 Phone: 517.342.5274
Services: As needed collaboration regarding natural resource issues, particularly education on natural features, biodiversity and invasive species management.
- 25) UP Resource Conservation and Development Council (RC&D)
780 Commerce Drive Suite C, Marquette, MI 49855 Phone: 906.226.7487 ex 4
Services: As needed services on early detection and treatment of Phragmites across the entire Upper Peninsula.
- 26) GEI Consultants of Michigan, P.C.
5225 Edgewater Drive Allendale, MI Phone: 616.384.2710
Services: As needed services collaborating on natural resource issues.
- 27) PlantWise LLC
646 Barber Ave, Ann Arbor, MI 48103 Phone: 734.665.7168
Services: As needed collaboration services on restoration and invasive species management.
- 28) Wildtype Nursery
900 N Every Rd, Mason, MI 48854 Phone: 517.244.1140
Services: As needed collaboration on restoration and invasive species management.

3.8. Security

- A. The Contractor will be subject to background checks.
- B. The Contractor's staff may be required to make deliveries to or enter State facilities. The State may require the Contractor's personnel to wear State issued identification badges.

Contractor's employees will be housed in State buildings to facilitate coordination and comply with SOM security procedures, including issuance of state I.D. badges and regular cybersecurity training. Contractor does not use uniforms. All Contractor's employees undergo a background check prior to being hired. The background check is performed by a third party (HireRight) and includes criminal felony and misdemeanor check at the state and national levels, sex offender list check, and Social Security trace. In addition, academic staff also have their highest degree verified.

- C. All Contractor personnel must comply with the State's security and acceptable use policies for State IT equipment and resources. See http://michigan.gov/cybersecurity/0,1607,7-217-34395_34476---,00.html. Contractor staff must comply with all Physical Security procedures in place within the facilities where they are working.

4. Program Management

4.1. Project Plan

- A. Fiscal Year (FY) 2018
 - 1. Within 14 days after the Contract effective date, the Contractor must submit a draft work plan(s) to the Program Manager for final approval (See also Section 1.F).
- B. Subsequent FY's (FY19-FY22)
 - 1. By April 15th of each year, the Program Manager will meet with the Contractor to review and discuss potential projects for the next FY.
 - 2. By June 1st, the Contractor will provide the Program Manager with a Draft Work Plan(s) of any priority projects for their respective Agency.
 - 3. By June 30th of each year, the Contractor will meet with the Program Manager to determine priority projects for each respective Agency.
 - 4. By August 30th of each year, the Contractor will develop and provide the final work plan(s) to the Program Manager.
- C. The Contractor understands that until a Purchase Order (release against the Contract) is received no work should be performed as the Purchase Order is the Agency's commitment to fund any given project.
- D. Once a Purchase Order has been issued for a project, the Program Manager and the Contractor shall meet at a minimum quarterly to discuss the project, any issues and make sure the project is on schedule. If there are any issues to be resolved that cannot be done between the Program Manager and the Contractor, the issue will be elevated to DTMB Procurement.
- E. It is expected that most projects will be initiated via the creation of Work Plans and the release of purchase orders at the beginning of the fiscal year. If the Contractor and Agency agree, a project can be initiated or changed at any time of the year.
- F. The Contractor must have a process in place for addressing issues and changes throughout the Contract term.

Contractor's Director will serve as the Contractor Representative. Issues and changes will be addressed at the Contractor staff member and State project sponsor level. Any issues and changes that require intervention at a higher level have will be worked out through direct discussions between the Contractor Director and the Program Managers. To ensure a regular venue to review project progress and address issues before they become major, approximately quarterly meetings between Program Managers will be held.

4.2. Meetings

The Contractor must attend the following meetings:

- A. In-person Kick-Off Meeting within 5 calendar days of the Effective Contract Date, and once within the 30 days before Contract expiration.
- B. There must be continuous liaising between the Program Manager and Contractor throughout the Contract term. Program Manager will meet with the Contractor for initial review and updated status of the Work Plans periodically. The meetings will provide for reviewing progress and providing necessary guidance to the Contractor regarding the timing of activities and solving issues or problems.
- C. Although there will be continuous liaison with the Contractor team, Program Manager will meet quarterly, or as requested by the Program Manager, with the Contractor's Project Manager for the purpose of reviewing progress and providing necessary guidance to the Contractor in solving problems which arise.
- D. The State may request other meetings, as it deems appropriate.

4.3. Reporting

- A. The Contractor must prepare and submit, to the Program Manager, the following written reports and electronic reports:
 - 1. Quarterly Reports: Brief written summary of accomplishments and issues from the previous quarter to be provided within 45 days of the quarter end.
 - 2. Annual Progress Reports: This report must be 1-5 pages maximum (a template will be provided) and provided by the due date on the work plan for each project.

3. Final Report: as detailed in the deliverable of the work plan for the project.

5. Ordering

5.1. Authorizing Document

The appropriate authorizing documents for the Contract will be a signed Blanket Purchase Order as well as an Agency Issued Purchase Order.

6. Invoice and Payment

6.1. Invoice Requirements

- A. Invoices from the Contractor must reflect the increments identified in Section 2.1 Acceptance, based on the approved:
 1. Work Plan for Consulting, Data Collection, Monitoring, Field Work, Project Management, and Maintenance.
 2. Hosting, Data Access and Maintenance.
- B. The Contractor must provide detailed invoices for services rendered which clearly outline the scope of billing. The invoices must correlate with the Work Plan and respective report. The State will pay the Contractor only for services authorized by the State, approved by the Program Manager, and provided for in the Purchase Order.
- C. All invoices submitted to the State must include: (a) date; (b) purchase order; (c) quantity; (d) description of the Contract Activities; (e) unit price; (f) shipping cost (if any); and (g) total price. Overtime, holiday pay, and travel expenses will not be paid.
- D. Out-of-Pocket Expenses: Contractor's out-of-pocket expenses are not separately reimbursable by the State unless, on a case-by-case basis for unusual expenses, the State has agreed in advance and in writing to reimburse Contractor for such an expense at the State's current travel reimbursement rates. See http://www.mi.gov/dmb/0,1607,7-150-9141_13132---,00.html for current rates.

The Contractor will use the "Premium Rate" for mileage, as the State will not provide vehicles or access to State vehicles under this Contract.

6.2. Payment Methods

The State will make payment for Contract Activities via Electronic Funds Transfer (EFT). Electronic transfer of funds is required for payments on State contracts. The Contractor must register with the State electronically at <http://www.cpexpress.state.mi.us>.

STATE OF MICHIGAN

Contract No. 171 180000000169

Natural Heritage Conservation Planning Services - Statewide and specifically Michigan Department of Natural Resources (DNR), Michigan Department of Environmental Quality (DEQ) and Michigan Department of Transportation (MDOT)

SCHEDULE B PRICING MATRIX

1. Reserved.
2. Reserved.
3. Pricing must include all costs, including but not limited to, any one-time or set-up charges, fees, and potential costs that Contractor may charge the State (e.g., shipping and handling, per piece pricing, and palletizing).
4. Reserved.
5. Reserved.
6. The Contract pricing is fixed: Fixed Database Access and Fixed Consulting, Data Collection, Monitoring, Field Work, Project Management, Conservation and Planning Services - Staff Hourly Rates per the State's choosing from the tables identified in Section 7 through 9 below.
 - A. A fixed annual price will be used to compensate the Contractor for all services for MDOT and DEQ identified in:
 - Schedule A, Section 1.A General Requirements
 - Schedule A, Section 1.B Database Management and Information Technology
 - i. Unlimited, State use
 - Schedule A, Section 4. Program Management
 - B. A fixed annual hourly rate will be used to compensate the Contractor for all services for DNR identified in:
 - Schedule A, Section 1.A General Requirements
 - Schedule A, Section 1.C Consulting Services
 - Schedule A, Section 1.D Data Collection, Monitoring, and Field Work
 - Schedule A, Section 1.E Conservation and Planning Services
 - Schedule A, Section 4. Program Management

Updated rates must be submitted to the Program Manager on an annual basis, if applicable, no later than June 1 of each preceding State Fiscal Year, and a Contract Change Notice is required per Standard Contract Terms, Section 53 Contract Modification.

- C. A fixed annual hourly rate will be used to compensate the Contractor for all services for MDOT and DEQ identified in:
- Schedule A, Section 1.C Consulting Services
 - Schedule A, Section 1.D Data Collection, Monitoring, and Field Work
 - Schedule A, Section 1.E Conservation and Planning Services

Updated rates must be submitted to the Program Manager on an annual basis, if applicable, no later than June 1 of each preceding State Fiscal Year, and a Contract Change Notice is required per Standard Contract Terms, Section 53 Contract Modification.

- D. A fixed not-to-exceed amount will be used to compensate the Contractor for any travel performed under the Contract during the Contract period. The specific value must be identified on each individual Work Plan. If additional funding is needed a Change Notice to the Contract will need to be processed per Standard Contract Terms, Section 53 Contract Modification.

7. Database Access (BIOTICS) for MDOT and DEQ – Firm-Fixed Annual Rate

Years - Term	Annual Maintenance and Hosting Fee	Annual Data Access Fee	1-Year Total	5-Year Total
5 Years: 10/1/17 – 9/30/22 (FY18-FY22)	\$0	\$49,114	\$49,114	\$245,568

8. Database Access, Consulting, Data Collection, Monitoring, Field Work, Program Management, Conservation and Planning Services for DNR - Staff Fixed Annual Hourly Rates

A. Rates for any existing staff

Staff Name	Key Personnel (Y/N)	Specify Zoological/ Botanical/ Aquatic/ Terrestrial/ Conservation Planning/ Education	Staff Level*	On-Site/Off-Site	Rate Fiscal Year (FY) 18 - (10/1/17-9/30/18)	Waived Indirect Cost % - Applicable to DNR only
Adkins, Ashley	N	Programmatic Support	Entry	ON	\$ 52.28	26
Badra, Pete	Y	Aquatic	Advanced	On	\$ 59.73	26
Cohen, Josh	Y	Terrestrial	Advanced	On	\$ 66.48	26
Cuthrell, Dave	Y	Zoology	Advanced	On	\$ 68.91	26
Enander, Helen	N	GIS/IT	Advanced	On	\$ 69.18	26
Higman, Phyllis	Y	Botany	Advanced	On	\$ 82.81	26
Hyde, Daria	N	Zoology	Intermediate	On	\$ 64.55	26
Klatt, Brian	Y	Terrestrial	Advanced	On	\$ 109.77	26

Korroch, Kraig	N	GIS/IT	Intermediate	On	\$ 66.44	26
Kortenhoven, Aaron	N	Terrestrial	Entry	On	\$ 49.96	26
Lee, Yu Man	N	Zoology	Advanced	On	\$ 72.19	26
Lincoln, Jesse	N	Terrestrial	Entry	On	\$ 51.97	26
Monfiels, Mike	Y	Zoology	Advanced	On	\$ 77.41	26
Paskus, John	Y	Planning	Advanced	On	\$ 79.72	26
Rogers, Becca	Y	GIS/IT	Advanced	On	\$ 74.25	26
Sanders, Mike	N	GIS/IT	Intermediate	On	\$ 56.78	26
Toben, Nancy	N	Programmatic Support	Advanced	On	\$ 73.83	26
Wilton, Clay	N	Terrestrial	Entry	On	\$ 49.96	26

*Advanced/Expert, Intermediate, or Entry

Note: The hourly rates being provided will be used for computational purposes in estimating project costs. The Contractor does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students. The Contractor maintains documentation to support time expended on sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB Circular A-21, FAR 31.3.”

B. Rates for any new non-key staff, not identified upfront in Contract, must be identified in individual work plans and categorized under one of the three staff levels: Advanced/Expert, Intermediate, or Entry.

Staff Level	FY18	
	On-Site	Off-Site
	Rate	Rate
Advanced/Expert	\$ 75.84	\$ 75.84
Intermediate	\$ 62.59	\$ 62.59
Entry	\$ 51.04	\$ 51.04
Waived Indirect %	26%	26%

9. Consulting, Data Collection, Monitoring, Field Work, Conservation and Planning Services for MDOT and DEQ - Staff Fixed Hourly Annual Rates

A. Rates for any existing staff

Staff Name	Key Personnel (Y/N)	Specify Zoological/ Botanical/ Aquatic/ Terrestrial/ Conservation Planning/ Education	Staff Level*	On-Site/Off-Site	Rate Fiscal Year (FY) 18 - (10/1/17-9/30/18)
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Adkins, Ashley	N	Programmatic Support	Entry	On	\$ 52.28
Badra, Pete	Y	Aquatic	Advanced	On	\$ 59.73
Cohen, Josh	Y	Terrestrial	Advanced	On	\$ 66.48
Cuthrell, Dave	Y	Zoology	Advanced	On	\$ 68.91
Enander, Helen	N	GIS/IT	Advanced	On	\$ 69.18
Higman, Phyllis	Y	Botany	Advanced	On	\$ 82.81
Hyde, Daria	N	Zoology	Intermediate	On	\$ 64.55
Klatt, Brian	Y	Terrestrial	Advanced	On	\$ 109.77
Korroch, Kraig	N	GIS/IT	Intermediate	On	\$ 66.44
Kortenhoven, Aaron	N	Terrestrial	Entry	On	\$ 49.96
Lee, Yu Man	N	Zoology	Advanced	On	\$ 72.19
Lincoln, Jesse	N	Terrestrial	Entry	On	\$ 51.97
Monfils, Mike	Y	Zoology	Advanced	On	\$ 77.41
Paskus, John	Y	Planning	Advanced	On	\$ 79.72
Rogers, Becca	Y	GIS/IT	Advanced	On	\$ 74.25
Sanders, Mike	N	GIS/IT	Intermediate	On	\$ 56.78
Toben, Nancy	N	Programmatic Support	Advanced	On	\$ 73.83
Wilton, Clay	N	Terrestrial	Entry	On	\$ 49.96

*Advanced/Expert, Intermediate, or Entry

Note: The hourly rates being provided will be used for computational purposes in estimating project costs. The Contractor does not maintain documentation of hours worked for its faculty and staff, with the exception of undergraduate students. The Contractor maintains documentation to support time expended on sponsored projects based on percentages of effort worked. This documentation is maintained in accordance with OMB Circular A-21, FAR 31.3.”

B. Rates for any new non-key staff, not identified upfront in Contract, must be identified in individual work plans and categorized under one of the three staff levels: Advanced/Expert, Intermediate, or Entry.

Staff Level	FY18	
	On-Site	Off-Site
	Rate	Rate

Advanced/Expert	\$ 75.84	\$ 75.84
Intermediate	\$ 62.59	\$ 62.59
Entry	\$ 51.04	\$ 51.04

10. Travel

Years - Term	Fixed Not-To-Exceed Travel Amount
5 Years: 10/1/17 – 9/30/22 (FY18-FY22)	\$700,000.00