Appendix D

Michigan Natural Features Inventory Survey Forms

MICHIGAN STATE UNIVERSITY EXTENSION

SPECIAL ANIMAL SURVEY FORM

Michigan Natural Features Inventory

SURVEYOR INFORMATION

Survey date: 2008-25-07 | Time from: 10:40 to: 11:05 am/or pm (circle) | Sourcecode: F _____ M I U S

Surveyors (principal surveyor first, include first & last name): ED SHADRICK AND JASON BRINKLEY

Weather conditions: WARM, BREEZY, PARTLY CLOUDY

Revisit to this EO needed? ___yes ___no Why?: _____

ELEMENT INFORMATION

Scientific name: CHARADRIUS MELODUS | Data sensitive? (Y) N | EOID: | Occ.# (if known):

FILING

SURVEYSITE: | SITENAME: ENRICO FERMI NUCLEAR GENERATING STATION

QUADCODE: | QUADNAME: STONY POINT, MI

LOCATIONAL INFORMATION

Was the Landowner contacted? Yes X No _____ Landowner Name: DETROIT EDISON COMPANY

Owner Type: UTILITY Note: _____

DIRECTIONS: Provide detailed directions to the observation (rather than the survey site). Include landmarks, roads, towns, distances, compass directions.

FERMI DRIVE EAST TO LAKE ERIE SHORELINE, SLIGHTLY SOUTH TO NARROW BEACH

Township/Range/Section T6S R10E S½ OF NW¼ SECTION 21

County MONROE | Managed area _____

Was GPS used? Yes _____ No X Type of unit _____ Unit number _____

Waypoint name/# (when using Garmin) _____ File name (when using Trimble) _____

OPTIONAL: Latitude _____ Longitude _____

FEATURE INFORMATION (mandatory) Point: <12.5 m in both dimensions, Line: >12.5 m in one dimension, Polygon: >12.5m in both dimensions

Source Feature: Single Source EO X Multi-Source EO _____ Conceptual Feature Type: Point _____ Line _____ Polygon _____

TOPOGRAPHIC MAP (mandatory)

1. Attach a photocopy of the appropriate part of a USGS topographic map (1:24,000 scale if available) and write the map scale on the photocopy. Please do NOT enlarge or reduce the map.
2. Indicate on the map the exact location of the observation(s):
   a. When the observed area is ***no larger than a pen point*** on the map (i.e., only a small number of individuals or extremely small patches), place small points on the map indicating the location(s) of the individuals or patches, and label each point with an arrow so they are more easily seen.
   b. When the observed area is ***larger than a pen point*** on the map, (e.g., a population of plants, foraging birds):
      (1) Draw a thin solid boundary line showing the extent of the observed area occupied by the individuals.
      (2) Indicate disjunct patches (polygons) by drawing the boundary for each patch separately.
      (3) If the boundary follows the edge of a lake, stream, road, marsh or other feature, draw the boundary precisely on the edge of the feature.
   (4) Where needed, add notes to the map with instructions on where the boundary line is located or if the boundary is shared with other observations.
3. A hand drawn sketch may be included for finer details.

LOCATIONAL CERTAINTY

Is your depiction of the observed area on the map within 6.25 **m (approximately 20ft)** of its actual location on the ground? (Y) N

If **N,** complete the following:

a. Estimate of uncertainty distance: based on landmarks, elevation, etc., the location of the observed area on the map is accurate to within _____ meters kilometers feet miles of its actual location on the ground.

b. Is the observed area known to be located within some feature(s) on the map (e.g., wetland boundary, lake, road, trail, highway, contour lines)? Y N

If Y, indicate the boundary within which the observed area is known to be located on the map line, and if applicable, identify the feature (e.g., marsh).

IDENTIFICATION
Photograph/slide taken? ___yes X no If yes, will a copy be submitted to Heritage? ___yes ___no MNFI office: Added to collection?____ (check)

Specimen collected? ___yes X no Collection # and repository: _____

Identification problems? ___yes X no If necessary, describe the important animal characteristics you used for identification: _____

_____

SIZE OF ELEMENT OCCURRENCE

Size is a quantitative measure of the area and/or abundance of an occurrence. Components of this factor are 1) area of occupancy, 2) population abundance, 3) population density and 4) population fluctuation.

Type of observation: X sight ___ song/vocalization ___ road kill ___ trapped ___ other (explain):_____

Abundance (number of pairs, chicks, nests, adults, juveniles, hatchlings, behavior, sex, size of each individual, etc.):

Actual number observed: 6

_____

_____

Number estimated and basis for estimate:_____

_____

_____

_____

Population density (if practical): number:_____ per area unit:_____ (i.e., meters^2, kilometers^2, miles^2, etc.)
Does population fluctuate? (May be particularly relevant to invertebrates):
___ yes ___ no ___ unknown. Explain: _____

Area of occupancy (fill in one):_____meters _____acres _____miles Type of measurement (check one): ___ Precise ___ Estimate

ASSOCIATED SPECIES

List other species observed at this site. Note especially listed species and potential competitors, predators, and prey. Mark appropiate columns.

Species	ID +	ID ?	Number Observed	Notes, observations, etc.
REFER TO "FERMI TERRESTRIAL WILDLIFE				
SURVEY FINAL REPORT" ATTACHED				

CONDITION:

Condition is an integrated measure of the quality of biotic and abiotic factors, structures and processes within the occurrence, and the degree to which they affect the continued existence of the occurrence. Components of condition for species are: 1) reproduction and health, 2) ecological processes, 3) species composition and biological structure, 4) abiotic physical/chemical factors. Factors to consider: evidence of regular successful reproduction, habitat degradation, disturbance, presence of exotic species, the degree to which ecological processes are sustaining the habitat. Where possible include a comparison to other occurrences.

EVIDENCE OF REPRODUCTION:_____

_____

_____

EVIDENCE OF DISEASE/PREDATION:_____

CONDITION (continued)

HABITAT DESCRIPTION: Describe the specific habitat or micro habitat where this animal occurs. Convey a mental image of the habitat and its features including: land forms, aquatic features, vegetation, slope, aspect, soils, associated plant and animal species, natural disturbances.

NARROW (<30FT) SANDY/GRAVEL BEACH BELOW ROCK RIPRAP ADJACENT TO POWER PLANT BUILDINGS.
LIKELY USED AS LAYOVER - NOT A RESIDENT SPECIES ON THE SITE

LANDSCAPE CONDITION: Describe the condition of the landscape surrounding the elements habitat (i.e., farmland, residential area, pristine forest)

DISTURBED INDUSTRIAL SHORELINE

CURRENT THREATS to this occurrence (i.e., grazing, logging, mining, plantations, ATVs, dumping, etc.) Discuss exotics in the next section.

POTENTIAL THREATS to this occurrence:

EXOTICS PRESENT? ___yes ___no. If yes, describe their impacts to the occurrence.

PAST IMPACTS to the occurrence (i.e., logging, , etc.):

TOPOGRAPHY	Aspect:	Slope:	Light:	Position:	Moisture:
Elevation: 571 ft.	___N ___NE	___flat	___open	___crest	___Inundated
	___E ___NW	___0-10	___partial	___upper slope	___saturated (wet-mesic)
If elevation is a range:	___S ___SE	___10-35	___filtered	___mid slope	___moist (mesic)
Minimum: ____ ft.	___W ___SW	___35+	___shade	___lower slope	___dry-mesic
Maximum: ____ ft.		___vertical		___bottom	___dry (xeric)

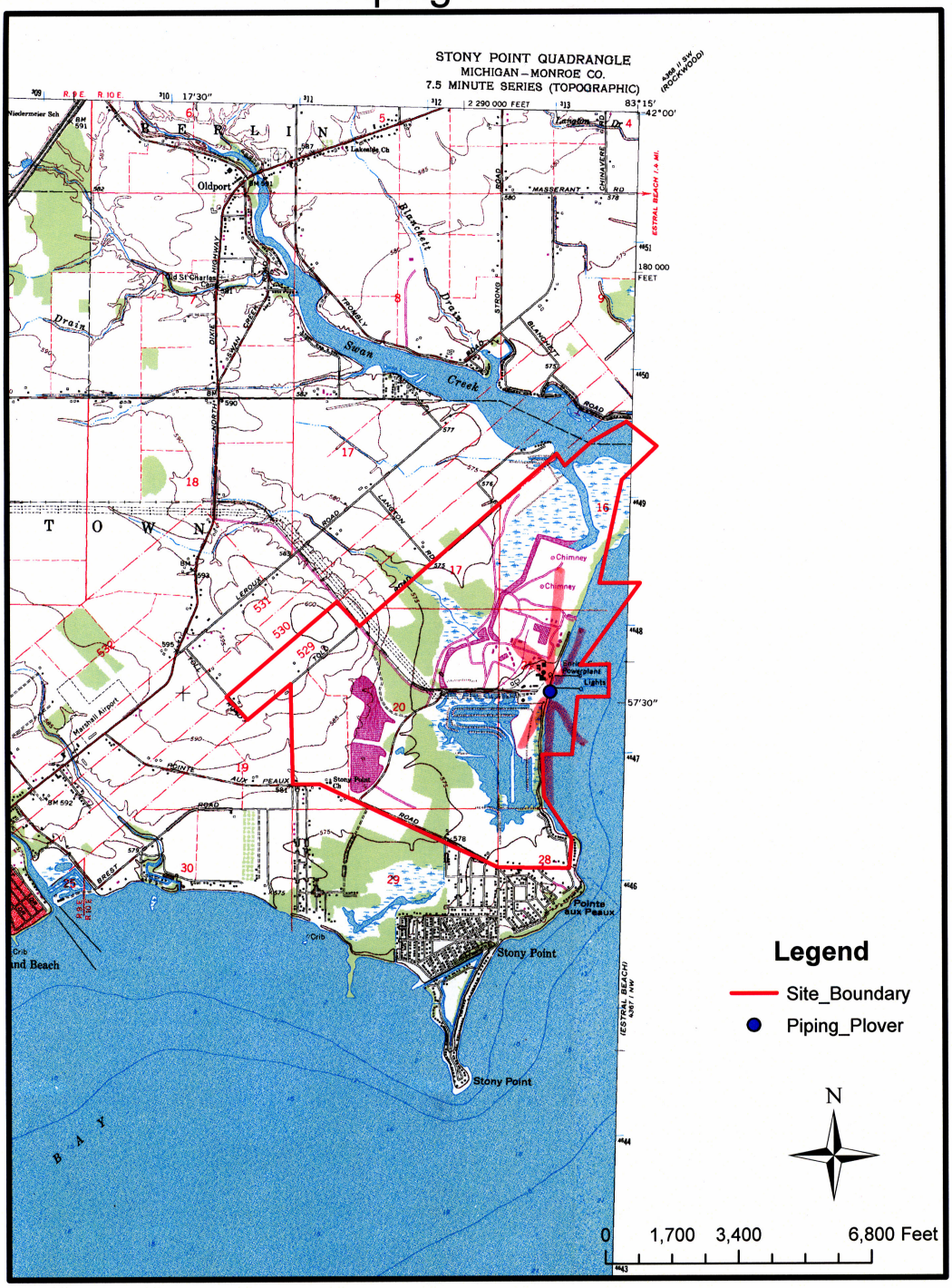
MANAGEMENT AND PROTECTION

MANAGEMENT, MONITORING AND RESEARCH NEEDS for this occurrence (e.g. burn periodically, open the canopy, ensure water quality, control exotics, keep out the ATV's, study effects of browsing)

AREAS IN NEED OF PROTECTION: (e.g. the entire marsh, the slope and crest of slope, the fen and upland, etc.)

If you have any questions regarding this form and its methodology please contact MNFI at (517) 373-1552.
P:\nfi\field forms\special_animal_form.doc
Rev. 10/2003

Piping Plover



MICHIGAN STATE UNIVERSITY EXTENSION

SPECIAL ANIMAL SURVEY FORM

Michigan Natural Features Inventory

SURVEYOR INFORMATION

Survey date: 2009-20-04 | Time from: 9:06 to: 9:35 (am) or pm (circle) | Sourcecode: F _____ M I U S

Surveyors (principal surveyor first, include first & last name): ED SHAGRICK AND LAURA MCNEIL

Weather conditions: COOL, FOGGY/DRIZZLE, LIGHT BREEZE

Revisit to this EO needed? ___yes ___no Why?: _____

ELEMENT INFORMATION

Scientific name: FALCO PEREGRINUS	Data sensitive? (Y) N	EOID:	Occ.# (if known):

FILING

SURVEYSITE:	SITENAME: ENRICO FERMI NUCLEAR GENERATING STATION
QUADCODE:	QUADNAME: STONY POINT, MI

LOCATIONAL INFORMATION

Was the Landowner contacted? Yes X No _____ Landowner Name: DETROIT EDISON COMPANY

Owner Type: UTILITY Note: _____

DIRECTIONS: Provide detailed directions to the observation (rather than the survey site). Include landmarks, roads, towns, distances, compass directions.

TAKE DOXY ROAD NORTH PAST SHOOTING RANGE TO BULLIT ROAD. BULLIT ROAD NORTH TO TERMINUS NEAR SWAN CREEK.

Township/Range/Section T6S R10E NW1/4 SECTION 16

County MONROE | Managed area _____

Was GPS used? Yes _____ No X Type of unit _____ Unit number _____

Waypoint name/# (when using Garmin) _____ File name (when using Trimble) _____

OPTIONAL: Latitude _____ Longitude _____

FEATURE INFORMATION (mandatory) Point: <12.5 m in both dimensions, Line: >12.5 m in one dimension, Polygon: >12.5m in both dimensions

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If Y, indicate the boundary within which the observed area is known to be located on the map line, and if applicable, identify the feature (e.g., marsh).

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Type of observation: X sight ___ song/vocalization ___ road kill ___ trapped ___ other (explain):_____

Abundance (number of pairs, chicks, nests, adults, juveniles, hatchlings, behavior, sex, size of each individual, etc.):

Actual number observed:____1_____

_____

_____

Number estimated and basis for estimate:_____

_____

_____

_____

Population density (if practical): number:_____ per area unit:_____ (i.e., meters^2, kilometers^2, miles^2, etc.)
Does population fluctuate? (May be particularly relevant to invertebrates):
___ yes ___ no ___ unknown. Explain: _____

Area of occupancy (fill in one):_____meters _____acres _____miles Type of measurement (check one): ___ Precise ___ Estimate

ASSOCIATED SPECIES

List other species observed at this site. Note especially listed species and potential competitors, predators, and prey. Mark appropiate columns.

Species	ID +	ID ?	Number Observed	Notes, observations, etc.
REFER TO "FERMI TERRESTRIAL				
WILDLIFE SURVEY FINAL REPORT"				
ATTACHED				

CONDITION:

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EVIDENCE OF REPRODUCTION:_____

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EVIDENCE OF DISEASE/PREDATION:_____

CONDITION (continued)

HABITAT DESCRIPTION: Describe the specific habitat or micro habitat where this animal occurs. Convey a mental image of the habitat and its features including: land forms, aquatic features, vegetation, slope, aspect, soils, associated plant and animal species, natural disturbances.

OBSERVED ONE INDIVIDUAL IN FLIGHT OVER SWAN CREEK, MOVING EAST TO WEST

LANDSCAPE CONDITION: Describe the condition of the landscape surrounding the elements habitat (i.e., farmland, residential area, pristine forest)

LARGE STREAM WITH EMERGENT AND RIPARIAN WETLAND, INCLUDING FORESTED SHORELINE AND SUBURBAN DEVELOPMENT (SOUTHERN AND NORTHERN SHORES)

CURRENT THREATS to this occurrence (i.e., grazing, logging, mining, plantations, ATVs, dumping, etc.) Discuss exotics in the next section.

POTENTIAL THREATS to this occurrence:

EXOTICS PRESENT? ___yes ___no. If yes, describe their impacts to the occurrence.

PAST IMPACTS to the occurrence (i.e., logging, , etc.):

TOPOGRAPHY	Aspect:	Slope:	Light:	Position:	Moisture:
Elevation: 572 ft.	___N ___NE	___flat	___open	___crest	___Inundated
	___E ___NW	___0-10	___partial	___upper slope	___saturated (wet-mesic)
If elevation is a range:	___S ___SE	___10-35	___filtered	___mid slope	___moist (mesic)
Minimum: ___ ft.	___W ___SW	___35+	___shade	___lower slope	___dry-mesic
Maximum: ___ ft.		___vertical		___bottom	___dry (xeric)

MANAGEMENT AND PROTECTION

MANAGEMENT, MONITORING AND RESEARCH NEEDS for this occurrence (e.g. burn periodically, open the canopy, ensure water quality, control exotics, keep out the ATV's, study effects of browsing)

AREAS IN NEED OF PROTECTION: (e.g. the entire marsh, the slope and crest of slope, the fen and upland, etc.)

If you have any questions regarding this form and its methodology please contact MNFI at (517) 373-1552.
P:\mfi\field forms\special_animal_form.doc
Rev. 10/2003