



July 10, 2007

Susan Jones
San Joaquin Valley Branch Chief
US Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, CA 95825

Subject: Report of Findings from Wet Season Surveys for Federally-Listed Vernal Pool Branchiopods for the Ione Land Transfer and Casino Project in Amador County, California

INTRODUCTION

On behalf of the Ione Band of Miwok Indians (Tribe), Analytical Environmental Services (AES) has conducted the second set of wet season surveys for vernal pool branchiopods for the proposed Ione Land Transfer and Casino Project (hereafter “Project”). The purpose of the surveys was to determine presence/ absence of federally-listed vernal pool branchiopods [(i.e. vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardii*)]. No federally-listed vernal pool branchiopods were observed during the first or second season of wet season surveys.

The surveys were conducted by permitted biologist Chris Sheehy with assistance by Stephen Stringer under the authority of Federal Fish and Wildlife Permit No. TE-799564-2 held by Sycamore Environmental Consultants, Inc. Mr. Stringer was previously authorized to independently conduct surveys under take permit TE-799564-2 and subsequent to the completion of the surveys he obtained an individual take permit (TE-141359-0). The surveys were conducted according to protocols outlined in the “Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods (Guidelines).” This document is the 90-Day Report of Findings required by Item VII of the Guidelines, which summarizes the results of the surveys. Jana Milliken authorized wet season surveys for the project site via email on January 4, 2007 (USFWS File # 1-1-07-PR-0399).

This report documents the results of surveys conducted in 2007, which are the second set of wet season surveys that have been conducted within a five year period on this project site completing the survey requirements as stated in the Guidelines. The first set of wet season surveys for the

project site were conducted by Keith Kwan and Peter Balfour of ECORP Consulting, Inc. (Recovery Permit No. TE-012973-2) in December through April of 2005 (**Attachment 5**). No listed branchiopods were observed during wet season surveys conducted in 2005.

The project site is located south of the town of Plymouth in Amador County within portions of Sections 11, 14 and 15 of Township 7 North, Range 10 East on the "Amador City, California" U.S. Geological Survey (USGS) 7.5-minute quadrangle map (**Attachment 1**). Vegetation communities on the project site include annual grassland, mixed chaparral, and blue oak woodland. Wetlands including cattle ponds, seasonal wetlands, vernal pools, wetland swales, and seeps occur throughout portions of the annual grassland on the project site.

METHODS

A total of eight surveys were conducted on January 5 and 19, February 2 and 15, March 2, 19, and 30, and April 13. Survey methodology followed "wet season sampling" protocols outlined in the Guidelines. All of the wetlands on the project site were visually inspected during each survey event and all inundated wetlands were dip netted. Required data were collected and documented on the attached U.S. Fish and Wildlife Service Vernal Pool Data Sheets for Wet Season Surveys (**Attachment 3**). Twelve wetland features (A, E, F, G, H, I, J, K, L, N, W, and X) were surveyed on the project site and are shown on **Attachment 2**. W and X, which are not shown on the figure, are located near K and B respectively. The naming of wetland features used in this report was revised from the 2005 report because the locations of wetlands U and V in the 2005 report were not shown on the vernal pool and seasonal wetland sampling location figure (Figure 2 of the 2005 report). It is assumed that U and V in the 2005 report correspond to W and X in the 2007 report.

AES was contacted by Jana Milliken in mid March and was informed that the Service was reviewing projects on an individual basis to determine whether or not to accept the results of wet season vernal pool surveys conducted this year due to lower than average rainfall. She informed AES that she needed to conduct a site visit to determine if fairy shrimp surveys could continue for the 2007 season. Stephen Stringer met with Jana Milliken onsite on March 16, 2007 and gave her a tour of the project site wetlands. During the onsite meeting, Jana Milliken gave AES verbal authorization to continue the surveys because the majority of the wetlands were still inundated.

DESCRIPTIONS OF WETLAND FEATURES SAMPLED

Wetland features A, J, K, and L are cattle ponds, which are a result of excavation and damming of swales to create impoundments suitable for stock watering. Cattle Pond A is located near the southwest corner of the property and is fed by two swales that capture runoff from nearby Highway 49 and the surrounding uplands. Sparse emergent vegetation occurs around the pond and includes water plantain (*Alisma* sp.) and narrow-leaf cattail (*Typha angustifolia*). Riparian

woodland surrounds part of the northern shore and the upstream swale feeding the pond. Several adult bullfrogs and chorus frogs were observed in this cattle pond during surveys. Cattle Pond J is located near the northern boundary of the property and is an impoundment that consists of open water that varies in depth throughout the season and a peripheral area that is saturated long enough through the wet season to support a thick herbaceous layer dominated by spikerush (*Eleocharis macrostachya*). Several bullfrog tadpoles, but no adults, were observed in this cattle pond during the surveys. Cattle Pond K is located in the northern half of the property near the center and is fed by a nearby seep. Little emergent or overhanging vegetation was observed. Several adult bullfrogs and chorus frogs were observed in this cattle pond during the surveys. Cattle pond L is located along the northeast boundary of the property and has sparse emergent vegetation consisting of narrow-leaf cattail and water plantain, but no overhanging vegetation. Several adult bullfrogs and chorus frogs were observed in this cattle pond during the surveys.

Wetlands G and H are two potential vernal pools that occur on the project site in the vicinity of the abandoned landing strip (**Attachment 1**). Plant species identified in the vernal pools at the time of the surveys included spikerush (*Eleocharis macrostachya*), Vasey's branching coyote thistle (*Eryngium castrense*), and pillwort (*Pilularia americana*). Chorus frog egg masses and tadpoles were observed in the vernal pools.

Six seasonal wetlands occur on the project site (Wetlands E, F, I, N, W, and X). Wetland E is located along the western boundary of the property adjacent to an intermittent stream. Plant species identified in the wetland at the time of the surveys included Dallis grass (*Paspalum dilatatum*), Bermuda grass (*Cynodon dactylon*), loosestrife hyssop (*Lythrum hyssopifolium*), and Himalayan blackberry (*Rubus discolor*). No amphibians were observed in Wetland E. Wetland F is a seasonal wetland that collects in a depression formed by the abandoned landing strip. Plant species identified in Wetland F at the time of the surveys included Vasey's branching coyote thistle, spikerush, and Carter's buttercup (*Ranunculus bonariensis* var. *trisepalus*). Chorus frog egg masses and tadpoles were observed in Wetland F. Wetland I is a seasonal wetland that is fed by seepage from cattle pond J. Plant species identified in Wetland I at the time of the surveys included spikerush and Baltic rush (*Juncus balticus*). No amphibians were observed in Wetland I. Wetland N is a seasonal wetland that collects in a depression formed by the abandoned landing strip. Plant species identified in Wetland N at the time of the surveys included Italian ryegrass, Vasey's branching coyote thistle, spikerush, and Carter's buttercup. No amphibians were observed in Wetland N. Wetlands W and X are small depressions that occur in the annual grassland. Plant species identified in Wetlands W and X at the time of the surveys included Italian ryegrass and curly dock (*Rumex crispus*). No amphibians were observed in Wetlands W and X.

RESULTS

Photos of the project site and representative wetland features are shown in **Attachment 4**. All of the site photos were taken by Stephen Stringer on February 23rd. During the 2007 wet season

surveys, all of the wetland features on the property were surveyed on eight separate occasions between January 5 and April 13. No federally-listed vernal pool branchiopods were observed on the project site. Although all of the wetlands on the project site were not inundated continuously for 120 days, the wetland features that provided the highest likelihood of supporting vernal pool branchiopods were inundated for a sufficient length of time for these species to hatch and complete a life cycle if they were present. This is evidenced by the fact that the wetland features onsite contained a high diversity of aquatic invertebrates (see data sheets in **Attachment 3**).

SUMMARY

Two full wet season surveys for federally-listed vernal pool branchiopods have been completed within a five year period for the Ione Land Transfer and Casino Project; the first wet season survey was completed in 2005 (**Attachment 5**) and the second was completed in 2007. No federally-listed vernal pool branchiopods were found on the project site. These two wet season surveys conducted within a 5-year period complete the requirements stated in the Guidelines for presence/ absence surveys for federally-listed vernal pool branchiopods. Please contact me if you have any questions.

Sincerely,

Stephen Stringer (Federal Fish and Wildlife Permit No. TE-141359-0)
AES
1801 7th Street, Suite 100
Sacramento, CA 95814

Attachments:

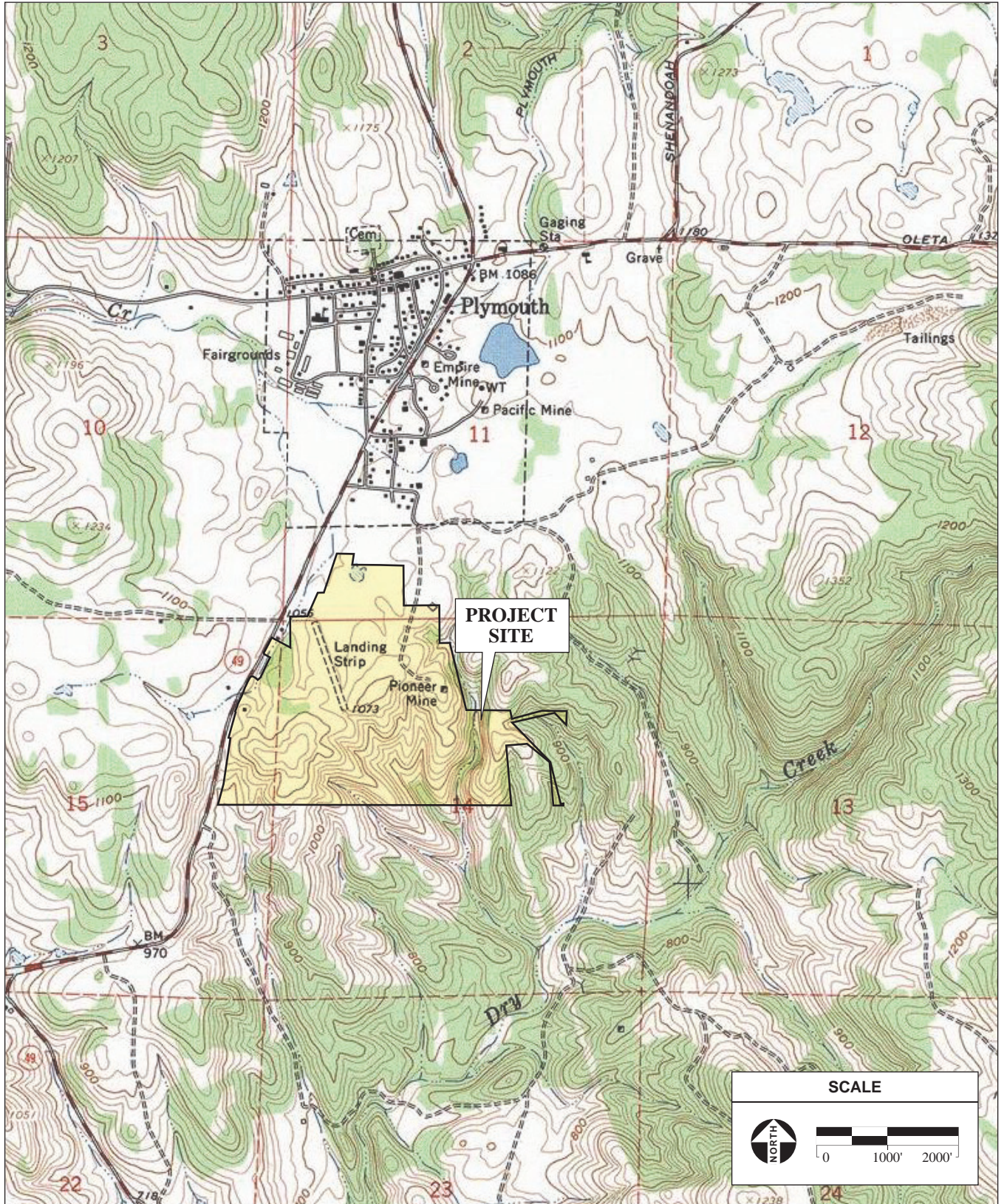
Attachment 1: Project Site Location Map
Attachment 2: Wetland Sampling Locations
Attachment 3: Wet Season Survey Datasheets
Attachment 4: Site photos
Attachment 5: Report of Findings Regarding Federally-Listed Branchiopods for Miwok Casino, Amador County, California. Prepared by ECORP Consulting, Inc. July 27, 2005

Copy:

David Kelly, US Fish and Wildlife Service Recovery Permit Coordinator
Jeffery Little, Vice President, Sycamore Environmental Consultants, Inc.

Attachment 1

Project Site Location Map



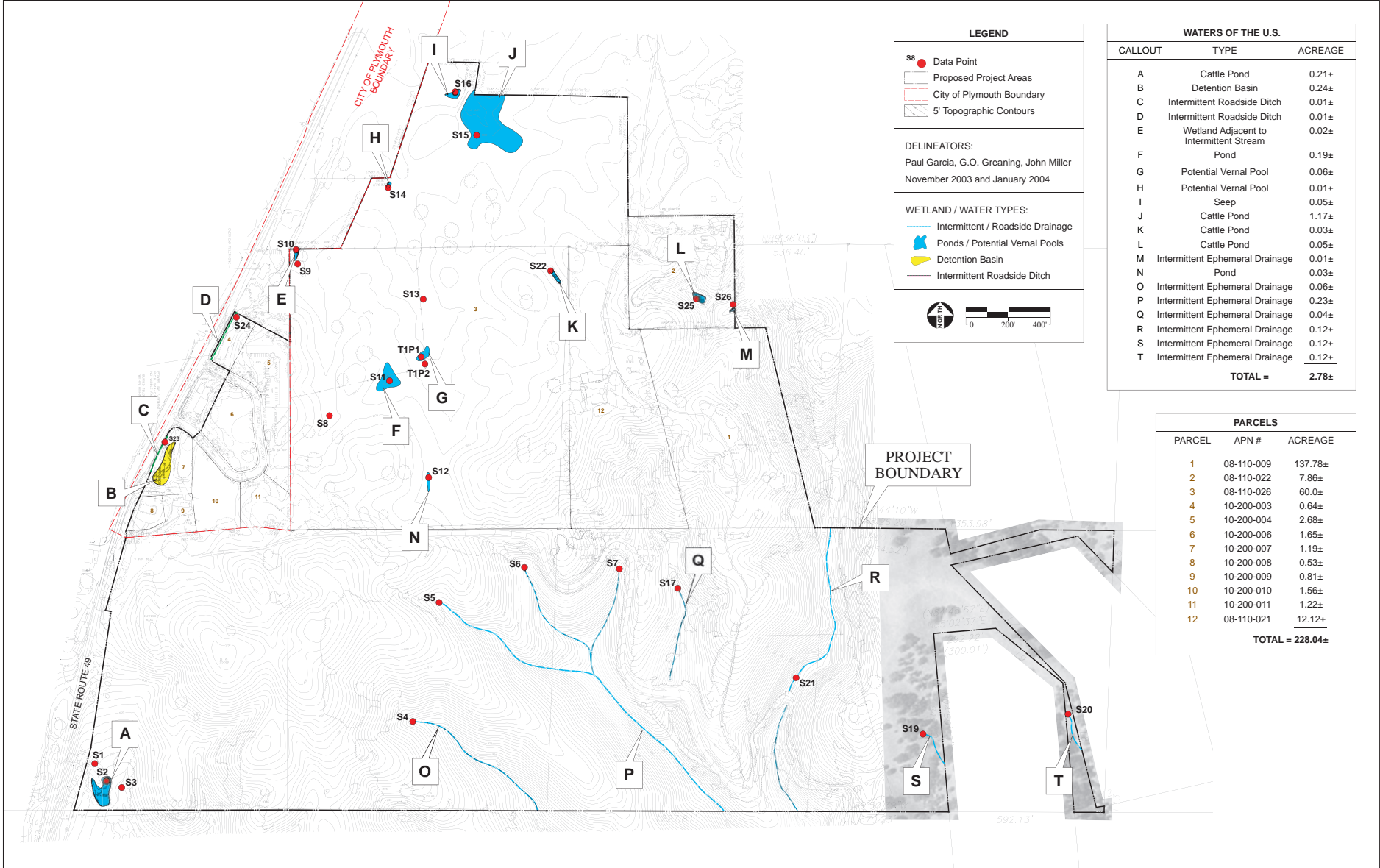
SOURCE: "Amador City, CA" USGS 7.5 Minute Topographic Quadrangle, Sections 11, 14, & 15, T7N, R10E, Mt. Diablo Baseline and Meridian; AES, 2007

Ione Band of Miwok Indians Wet Season Survey /203525

Attachment 1
Site and Vicinity

Attachment 2

Wetland Sampling Locations



SOURCE: USGS Aerial Photograph, 8/16/1998 ; American Aerial Mapping, 2003 ; AES, 2007

Ione Band of Miwok Indians Casino Project Wet Season Surveys / 203525 ■

Attachment 2 Wetland Sampling Locations

Attachment 3

U.S. Fish and Wildlife Service Vernal Pool Data Sheets

U.S. Fish and Wildlife Service Vernal Pool Data Sheets
Wet Season Survey January 5, 2007

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 01 / 05 / 2007 Time: 10:49 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SWEENEY + STEPHEN STEINBER Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: H

Township: T7N Range: R10E Section: 11, 14, 15 ^N $38^{\circ} 27' 40''$ lat. ^W $120^{\circ} 35' 40''$ long.

Temperature: Water: 5.0 °C Air: 10.0 °C

Pool Depth: Surface Area: W L
at time of sampling: 37.0 cm at time of sampling: 6.71 m x 13.71 m

estimated maximum: 41.0 cm estimated maximum: 9.14 m x 16.76 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle
light

horses sheep other _____

moderate

heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l

Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm

Dissolved Oxygen: _____ ppm or mg/l

pH: 7.4

Turbidity: (secchi disc depth) 42.0 cm or: clear to bottom _____

Salinity: _____ ppt or ppm

Total Dissolved Solids (TDS): _____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	<u>YES</u>	no	Belostomatidae:	yes	no
Other (specify) _____			Other (specify) _____		

CANADA LOOSE SCAP

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 01/05/2007 Time: 11:10 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SWEENEY + STEPHEN STRINGER Permit #: TE-799564-2

Site/Project Name: LOVE CASINO Pool #: I

Township: T7N Range: R10E Section: 11, 14, 15 $38^{\circ} 27' 40''$ lat. $120^{\circ} 50' 40''$ long.

Temperature: Water: 7.5 °C Air: 11.0 °C

Pool Depth: at time of sampling: 8.0 cm Surface Area: W L
at time of sampling: 1.22 m x 1.52 m

estimated maximum: 12.0 cm estimated maximum: 1.83 m x 3.05 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 6.9 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	<u>YES</u>	no	Belostomatidae:	yes	no
Other (specify) _____			Other (specify) _____		

CANADA LIESE SCAT

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 01 / 05 / 2007 Time: 11:30 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SMITHY + STEPHEN SPRINGER Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: J

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W 38° 27' 40" lat. 120° 50' 40" long.

Temperature: Water: 6.6 °C Air: 12.0 °C

Pool Depth: at time of sampling: 106.7 cm estimated maximum: 183.0 cm
Surface Area: ^W ^L at time of sampling: 33.53 m x 45.72 m
estimated maximum: 45.72 m x 65.00 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other _____
light moderate heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
pH: 8.5 Turbidity: (secchi disc depth) 12.0 cm or: clear to bottom _____
Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

CATTLE POOL (STRONG URINE + FECAL ODOR)

U.S. Fish and Wildlife Service Vernal Pool Data Sheet Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	<u>yes</u>	no	Belostomatidae:	yes	no
Other (specify)	GASTROPODA (Empty Shells) / 10's		Other (specify)	_____	
	• Possibly GYBAULUS sp.				

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 01/05/2007 Time: 12:03 County: AMADOR Quad: AMADOR City

Collector(s): CHRISTOPHER SNEYD + STEPHEN STRINGER Permit #: TE-799564-2

Site/Project Name: LONE CASINO Pool #: L

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W 38°27'40" lat. 120°20'40" long.

Temperature: Water: 8.0 °C Air: 11.0 °C

Pool Depth: Surface Area: W L
at time of sampling: 107.0 cm at time of sampling: 7.62 m x 15.24 m
estimated maximum: 213.0 cm estimated maximum: 18.29 m x 21.34 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other DEER TRAILS TO POND
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 8.2 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify)	_____	

Insects: (adult or larvae)			
Anisoptera:	yes	no	
Zygoptera:	yes	no	
Hydrophilidae:	yes	no	} COLEOPTERA LARVAE ① - TOO SMALL TO I.D.
Dytiscidae:	yes	no	
Corixidae:	yes	no	
Notonectidae:	yes	no	
Belostomatidae:	yes	no	
Other (specify)	LERIDAE (COMMON WATER STRIDER) (HEMIPTERA) ①		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 01 / 05 / 2007 Time: 12:35 County: AMADOR Quad: Amador City

Collector(s): CHRISTOPHER SIMON + STEPHEN STRINLER Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: G

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W 35° 27' 40" lat. 120° 50' 40" long.

Temperature: Water: 11.7 °C Air: 12.0 °C

Pool Depth: at time of sampling: 29.0 cm estimated maximum: 35.0 cm
Surface Area: at time of sampling: 14.33 m x 18.29 m estimated maximum: 18.29 m x 21.34 m

Habitat Condition: (circle where appropriate)

- undisturbed
- ungrazed
- land use of habitat:
- disturbed: tire tracks garbage discing/plowing
- grazed: cattle horses sheep other _____
light moderate heavy

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
pH: 7.8 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X
Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no	<10 (Too Small to I.D.)	Insects: (adult or larvae)		
Conchostracans:	yes	no		Anisoptera:	yes	no
Copepods:	yes	no		Zygoptera:	yes	no
Ostracods:	yes	no		Hydrophilidae:	yes	no
Fish:	yes	no		Dytiscidae:	yes	no
Frogs:	yes	no		Corixidae:	yes	no
Salamanders:	yes	no		Notonectidae:	yes	no
Waterfowl:	<u>yes</u>	no	CANADA LEESE SEAT	Belostomatidae:	yes	no
Other (specify) _____				Other (specify) _____		

> COLEOPTERA
① - TOO SMALL TO I.D.

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 01 / 05 / 2007 Time: 12:55 County: Amador Quad: Amador City

Collector(s): CHRISTOPHER SHEEHY + STEPHEN STRAINLGER Permit #: TE - 799564-2

Site/Project Name: IONE CASINO Pool #: K

Township: T7N Range: R10E Section: 11, 14, 15 ^N 38° 27' 48" lat. ^W 120° 50' 46" long.

Temperature: Water: 7.7 °C Air: 10.0 °C

Pool Depth: at time of sampling: 63.0 cm estimated maximum: 183.0 cm
Surface Area: at time of sampling: 7.62 m x 23.47 m estimated maximum: 13.72 m x 36.58 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other _____
light moderate heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
pH: 7.9 Turbidity: (secchi disc depth) 24.0 cm or: clear to bottom _____
Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	<u>yes</u>	no - 10'S (EMPTY SHELLS)	Anisoptera:	<u>yes</u>	NO - 10'S LARVAE
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	<u>yes</u>	NO - 10'S ADULT
Fish	yes	no	Dytiscidae:	yes	no
Frogs	<u>yes</u>	no - ① (CHORUS FROG)	Corixidae:	<u>yes</u>	NO - 10'S ADULT
Salamanders	yes	no	Notonectidae:	<u>yes</u>	NO - 10'S ADULT
Waterfowl	<u>yes</u>	no CANADIAN GOOSE SEAF	Belostomatidae:	yes	no
Other (specify)	<u>ASTROPORA - 10'S</u>		Other (specify)	_____	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 01 / 05 / 2007 Time: 13:27 County: AMADOR Quad: Amazon City

Collector(s): CHRISTOPHER SNEYDY + STEPHEN STRINLEN Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: F

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W 38°27'40" lat. 120°50'40" long.

Temperature: Water: 7.9 °C Air: 10.0 °C

Pool Depth: at time of sampling: 67.0 cm estimated maximum: 100.0 cm
Surface Area: ^W ^L at time of sampling: 18.29 m x 30.48 m
estimated maximum: 30.48 m x 51.82 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other
 light moderate heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
pH: 7.6 Turbidity: (secchi disc depth) >60.0cm or: clear to bottom x
Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	<u>yes</u>	no - 100'S (EMPTY SHELLS)	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	<u>yes</u>	no CANADA BEESE SCAT	Belostomatidae:	yes	no
Other (specify)	<u>GASTROPODA - 10'S (EMPTY SHELLS)</u>		Other (specify)	_____	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 01 / 05 / 2007 Time: 13:42 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SMITH + STEPHEN STRIBLEN Permit #: TE-799564-2

Site/Project Name: IONS CASINO Pool #: N

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W 38° 27' 40" lat. 120° 50' 40" long.

Temperature: Water: 10.7 °C Air: 13.0 °C

Pool Depth: at time of sampling: 23.0 cm estimated maximum: 30.0 cm
Surface Area: ^W ^L at time of sampling: 3.05 m x 12.19 m
estimated maximum: 6.10 m x 24.38 m

Habitat Condition: (circle where appropriate)

undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other _____
light moderate heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 7.5 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify)	_____	

Insects: (adult or larvae)			
Anisoptera:	yes	no	
Zygoptera:	yes	no	
Hydrophilidae:	yes	no	
Dytiscidae:	yes	no	
Corixidae:	yes	no	
Notonectidae:	yes	no	
Belostomatidae:	yes	no	
Other (specify)	DIPTERA - (1) - LARVAE (TOO SMALL TO I.D.)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 01 / 05 / 2007 Time: 14:09 County: AMADOR Quad: AMADOR CITY

Collector(s): CARLOS PARRA SHERIN + STEPHEN STRINGER Permit #: TE - 799564-2

Site/Project Name: IONE CASINO Pool #: A

Township: T7N Range: R10E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 21' 40" long.

Temperature: Water: 7.5 °C Air: 12.5 °C

Pool Depth: Surface Area: W L
 at time of sampling: 152.0cm at time of sampling: 22.86 m x 27.43 m
 estimated maximum: 213.4 cm estimated maximum: 27.43 m x 30.48 m

-Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
 - ungrazed grazed: cattle horses sheep other
 light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
 Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
 pH: 8.5 Turbidity: (secchi disc depth) 33.0cm or: clear to bottom _____
 Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

- DEAD COW IN POND / NOT FAIRLY SHRIMP HABITAT
- CATTLE POND

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)			
Anisoptera:	yes	no	
Zygoptera:	yes	no	
Hydrophilidae:	yes	no	
Dytiscidae:	yes	no	
Corixidae:	yes	no	
Notonectidae:	yes	no	
Belostomatidae:	yes	no	
Other (specify) _____			

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: no yes

Required color slides and/or photographs for the project site are included: no yes

Date: 01/05/2007 Time: 14:32 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SHEEHY + STEPHEN STRINGER Permit #: TE-799564-2

Site/Project Name: TONE CASINO Pool #: E

Township: T7N Range: R10E Section: 11, 14, 15 ^N39°27'40" lat. ^W120°50'40" long.

Temperature: Water: 13.6 °C Air: 13.5 °C

Pool Depth: Surface Area: W L
at time of sampling: 8.5 cm at time of sampling: 2.44 m x 3.05 m
estimated maximum: 10.0 cm estimated maximum: 3.66 m x 4.57 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other _____
light moderate heavy
- land use of habitat: _____

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 8.5 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify)	_____	

Insects: (adult or larvae)			
Anisoptera:	yes	no	
Zygoptera:	yes	no	
Hydrophilidae:	yes	no	
Dytiscidae:	yes	no	
Corixidae:	yes	no	
Notonectidae:	yes	no	
Belostomatidae:	yes	no	
Other (specify)	_____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheets
Wet Season Survey January 19, 2007

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 01/19/2007 Time: 09:59 County: ANADOK Quad: AMADORA CITY

Collector(s): CHRISTOPHER SHEEHY + STEPHEN STRINGER Permit #: TE-799564-2

Site/Project Name: JONE CASINO Pool #: E

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W
38° 27' 40" lat. 120° 50' 40" long.

Temperature: Water: _____ °C Air: 18.0 °C

Pool Depth: at time of sampling: _____ cm Surface Area: W L
at time of sampling: _____ m x _____ m
estimated maximum: _____ cm estimated maximum: _____ m x _____ m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other _____
light moderate _____ heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: _____ Turbidity: (secchi disc depth) _____ cm or: clear to bottom _____

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

• DRY

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)		
Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify) _____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 01/19/2007 Time: 10:10 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SHERMAN + STEPHEN STRINGER Permit #: TE-799564-2

Site/Project Name: JONE CASINO Pool #: H

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W
25° 27' 46" lat. 120° 50' 40" long.

Temperature: Water: 4.5 °C Air: 19.0 °C

Pool Depth: at time of sampling: 26.0 cm estimated maximum: 41.0 cm
Surface Area: at time of sampling: 6.10 m x 10.67 m estimated maximum: 9.14 m x 16.76 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other _____
light moderate heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 8.5 Turbidity: (secchi disc depth) > 60.0 cm or: clear to bottom

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

- PHOTO - 46 + 47

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no		Insects: (adult or larvae)			
Conchostracans:	yes	no		Anisoptera:	yes	no	
Copepods:	<u>yes</u>	no	1000'S	Zygoptera:	yes	no	
Ostracods	yes	no		Hydrophilidae:	<u>yes</u>	no	1 - ADULT
Fish	yes	no		Dytiscidae:	yes	no	
Frogs	yes	no		Corixidae:	<u>yes</u>	no	1 - ADULT
Salamanders	yes	no		Notonectidae:	yes	no	
Waterfowl	<u>yes</u>	no	CANADA LEESES SCAT	Belostomatidae:	yes	no	
Other (specify) _____				Other (specify) _____			

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 01/19/2007 Time: 10:29 County: Amador Quad: Amador City

Collector(s): CHRISTOPHER INCHY + STEPHEN STRINGER Permit #: TE-799564-2

Site/Project Name: LONE CASINO Pool #: I

Township: T7N Range: R10E Section: 11, 14, 15 ^N _{33° 27' 40"} lat. ^W _{120° 50' 40"} long.

Temperature: Water: _____ °C Air: 20.0 °C

Pool Depth:		Surface Area:
at time of sampling: _____ cm		at time of sampling: _____ m x _____ m
estimated maximum: _____ cm		estimated maximum: _____ m x _____ m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing

- ungrazed grazed: cattle horses sheep other _____

 light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: _____ Turbidity: (secchi disc depth) _____ cm or: clear to bottom _____

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:
DRY

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _____			Other (specify) _____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 01/19/2007 Time: 10:35 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SNEEN + STEPHEN STRINBER Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: J

Township: T7N Range: R10E Section: 11, 14, 15 ^{N W} 38° 27' 40" lat. 120° 50' 40" long.

Temperature: Water: 5.5 °C Air: 22.0 °C

Pool Depth: Surface Area: W L
at time of sampling: 91.0 cm at time of sampling: 22.86 m x 42.67 m
estimated maximum: 183.0 cm estimated maximum: 45.72 m x 65.00 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle
light

horses sheep other
moderate

heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 9.0 Turbidity: (secchi disc depth) 27.0 cm or: clear to bottom _____

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

• PHOTO - 48, 49, 50

• CATTLE pool (STRONG URINE SMELL)

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no	1,000's	Insects: (adult or larvae)		
Conchostracans:	yes	no		Anisoptera:	yes	no
Copepods:	yes	no		Zygoptera:	yes	no
Ostracods	yes	no		Hydrophilidae:	yes	no
Fish	yes	no		Dytiscidae:	yes	no
Frogs	<u>yes</u>	no	10's (BULLFROG Tadpoles?)	Corixidae:	yes	no
Salamanders	yes	no		Notonectidae:	yes	no
Waterfowl	<u>yes</u>	no	CANADA LEESE SCAR	Belostomatidae:	yes	no
Other (specify)	_____			Other (specify)	<u>OLIGOCHAETA (.)</u>	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 01/19/2007 Time: 11:15 County: Amarok Quad: Amarok City

Collector(s): CHRISTOPHER SHEEHY + STEPHEN STIBINGER Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: L

Township: T7N Range: R10E Section: 11, 14, 15 N W
35° 27' 40" lat. 120° 50' 45" long.

Temperature: Water: _____ °C Air: 22.0 °C

Pool Depth:	Surface Area:
at time of sampling: _____ cm	at time of sampling: _____ m x _____ m
estimated maximum: _____ cm	estimated maximum: _____ m x _____ m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing

- ungrazed grazed: cattle horses sheep other _____
 light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: _____ Turbidity: (secchi disc depth) _____ cm or: clear to bottom _____

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

• DRY

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _____			Other (specify) _____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 01/19/2007 Time: 12:20 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SHERMAN + STEPHEN STRINGER Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: 6

Township: T7N Range: R10E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 8.1 °C Air: 23.5 °C

Pool Depth: at time of sampling: 26.0 cm estimated maximum: 35.0 cm
Surface Area: at time of sampling: 12.20 m x 15.24 m estimated maximum: 18.29 m x 21.34 m
_{W L}

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other _____
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 8.1 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

PHOTO'S - 51, 52, 53

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="radio"/> yes	no	10's	Insects: (adult or larvae)		
Conchostracans:	<input type="radio"/> yes	<input type="radio"/> no		Anisoptera:	<input type="radio"/> yes	<input type="radio"/> no
Copepods:	<input type="radio"/> yes	<input type="radio"/> no		Zygoptera:	<input type="radio"/> yes	<input type="radio"/> no
Ostracods	<input type="radio"/> yes	<input type="radio"/> no		Hydrophilidae:	<input type="radio"/> yes	<input type="radio"/> no
Fish	<input type="radio"/> yes	<input type="radio"/> no		Dytiscidae:	<input type="radio"/> yes	<input type="radio"/> no
Frogs	<input type="radio"/> yes	<input type="radio"/> no		Corixidae:	<input type="radio"/> yes	<input type="radio"/> no
Salamanders	<input type="radio"/> yes	<input type="radio"/> no		Notonectidae:	<input type="radio"/> yes	<input type="radio"/> no
Waterfowl	<input checked="" type="radio"/> yes	no	CANADA LEESE SCAT	Belostomatidae:	<input type="radio"/> yes	<input type="radio"/> no
Other (specify)	_____			Other (specify)	CULICIDAE (10's)	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	<u>yes</u>	no 100's (empty shells)	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	<u>yes</u>	no CANADA GEES2 SCAT	Belostomatidae:	yes	no
Other (specify) _____			Other (specify) <u>culicidae - 10's</u>		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 01/19/2007 Time: 13:30 County: Amazon Quad: Amazon City

Collector(s): CHRISTOPHER SUGERY + STEPHEN STRINBERG Permit #: TE-799564-2

Site/Project Name: LOVE CASINO Pool #: K

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W 38° 27' 40" lat. 120° 50' 45" long.

Temperature: Water: 7.5 °C Air: 23.5 °C

Pool Depth: Surface Area: W L
at time of sampling: 57.0 cm at time of sampling: 6.10 m x 22.86 m
estimated maximum: 180.0 cm estimated maximum: 13.72 m x 36.58 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other
light moderate

heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 9.0 Turbidity: (secchi disc depth) 35.0 cm or: clear to bottom _____

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

Photos - 58, 59, 60, 61

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	<u>yes</u>	no - EMPTY SHELLS - (10's)	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	<u>yes</u>	no - CHORUS (2-3)	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	<u>yes</u>	no CANADA LOOSE SCAT	Belostomatidae:	yes	no
Other (specify) _____			Other (specify)	<u>CHRYSOMELIDAE - 10's</u> <u>CULICIDAE - 10's</u>	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)		
Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify) _____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 01/19/2007 Time: 14:20 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SNEENY + STEPHEN STRINGER Permit #: TE-799564-2

Site/Project Name: FONE CASINO Pool #: A

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W 39° 27' 40" lat. 120° 50' 42" long.

Temperature: Water: 7.0 °C Air: 23.5 °C

Pool Depth: at time of sampling: 137.0 cm
estimated maximum: 213.4 cm
Surface Area: ^W ^L
at time of sampling: 21.34 m x 25.91 m
estimated maximum: 27.43 m x 30.48 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other
light moderate

heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 8.5 Turbidity: (secchi disc depth) 30.0 cm or: clear to bottom _____

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

- NOT A VERNAL POOL / PERENNIAL
- CATTLE POND

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify) _____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheets
Wet Season Survey February 2, 2007

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 02/02/2017 Time: 10:01 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SHERIDAN + STEPHEN STRINGER Permit #: TE-799564-2

Site/Project Name: FONS CASINO Pool #: E

Township: T7N Range: R10E Section: 11, 14, 15 ^N 27' 40" lat. ^W 120° 20' 40" long.

Temperature: Water: _____ °C Air: 13.0 °C

Pool Depth: at time of sampling: _____ cm Surface Area: W L
at time of sampling: _____ m x _____ m
estimated maximum: _____ cm estimated maximum: _____ m x _____ m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing

- ungrazed grazed: cattle horses sheep other _____
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: _____ Turbidity: (secchi disc depth) _____ cm or: clear to bottom _____

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

• DRY

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)		
Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify) _____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: no yes

Required color slides and/or photographs for the project site are included: no yes

Date: 02 / 02 / 2007 Time: 10:23 County: Amador Quad: Amador City

Collector(s): CHRISTOPHER SHERMAN + STEPHEN STRINGER Permit #: TE-799564-2

Site/Project Name: IONS CASINO Pool #: H

Township: T7N Range: R10E Section: 11, 14, 15 ^N _W lat. 38° 27' 40" long. 120° 50' 40"

Temperature: Water: 10.2 °C Air: 13.0 °C

Pool Depth: at time of sampling: 9.0 cm
estimated maximum: 41.0 cm
Surface Area: W L
at time of sampling: 1.83 m x 2.44 m
estimated maximum: 9.14 m x 16.76 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed cattle horses sheep other
 light moderate heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 9.4 Turbidity: (secchi disc depth) 260 cm or: clear to bottom

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="radio"/> yes	no	100's	Insects: (adult or larvae)		
Conchostracans:	yes	no		Anisoptera:	yes	no
Copepods:	<input checked="" type="radio"/> yes	no	1000's	Zygoptera:	yes	no
Ostracods	yes	no		Hydrophilidae:	<input checked="" type="radio"/> yes	no <input type="radio"/> - ADULT
Fish	yes	no		Dytiscidae:	yes	no
Frogs	yes	no		Corixidae:	yes	no
Salamanders	yes	no		Notonectidae:	yes	no
Waterfowl	<input checked="" type="radio"/> yes	no	CANADA GOOSE SEAT	Belostomatidae:	yes	no
Other (specify)			PLATYHELMINTHES - 100's	Other (specify)		CULICIDAE - 100's

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 02 / 02 / 2007 Time: 10:36 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SHZENTY + STEPHEN STRINGER Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: I

Township: T7N Range: R10E Section: 11, 14, 15 ^N 35° 27' 46" lat. ^W 120° 50' 40" long.

Temperature: Water: _____ °C Air: 13.0 °C

Pool Depth: at time of sampling: _____ cm Surface Area: W L
at time of sampling: _____ m x _____ m
estimated maximum: _____ cm estimated maximum: _____ m x _____ m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other _____
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: _____ Turbidity: (secchi disc depth) _____ cm or: clear to bottom _____

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

• DRY

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)		
Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify) _____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 02/02/2007 Time: 10:48 County: Amazon Quad: Amazon City

Collector(s): CHRISTOPHER SHEDDEN + STEPHEN STRINGER Permit #: TE-799564-2

Site/Project Name: FONE CASINO Pool #: J

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W 38° 27' 40" lat. 120° 50' 40" long.

Temperature: Water: 12.0 °C Air: 13.0 °C

Pool Depth: at time of sampling: 76.0 cm Surface Area: 18.28 m x 30.48 m

estimated maximum: 1.83 cm estimated maximum: 45.72 m x 65.00 m

Habitat Condition: (circle where appropriate)

<u>- undisturbed</u>	disturbed:	tire tracks	garbage	discing/plowing
- ungrazed	<u>grazed:</u>	<u>cattle</u> light	horses	sheep moderate
			other	<u>heavy</u>

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 7.7 Turbidity: (secchi disc depth) 30.0 cm or: clear to bottom _____

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

- PHOTO'S 1-3 (FROG)
- CATTLE POND (URINE SMALL)
- SMALL POND HAS FORMED (SOUTH AREA) SEPARATED BY DRYING

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no	1000's	Insects: (adult or larvae)		
Conchostracans:	yes	no		Anisoptera:	yes	no
Copepods:	<u>yes</u>	no	1000's	Zygoptera:	yes	no
Ostracods	yes	no		Hydrophilidae:	yes	no
Fish	yes	no		Dytiscidae:	yes	no
Frogs	<u>yes</u>	no	10's	Corixidae:	yes	no
Salamanders	yes	no		Notonectidae:	yes	no
Waterfowl	<u>yes</u>	no	CANAD + GOOSE SCAT	Belostomatidae:	yes	no
Other (specify) _____				Other (specify) <u>CULICIDAE - 10'S</u>		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 02 / 02 / 2007 Time: 11:18 County: Amador Quad: Amador City

Collector(s): CHRISTOPHER STEEN + STEPHEN STRINZEN Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: L

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W
38° 27' 40" lat. 120° 50' 40" long.

Temperature: Water: _____ °C Air: 15.0 °C

Pool Depth: Surface Area: W L
at time of sampling: _____ cm at time of sampling: _____ m x _____ m
estimated maximum: _____ cm estimated maximum: _____ m x _____ m

Habitat Condition: (circle where appropriate)

<u>- undisturbed</u>	disturbed:	tire tracks	garbage	discing/plowing
<u>- ungrazed</u>	grazed:	cattle	horses	sheep other _____ light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: _____ Turbidity: (secchi disc depth) _____ cm or: clear to bottom _____

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

DRY

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)			
Anisoptera:	yes	no	
Zygoptera:	yes	no	
Hydrophilidae:	yes	no	
Dytiscidae:	yes	no	
Corixidae:	yes	no	
Notonectidae:	yes	no	
Belostomatidae:	yes	no	
Other (specify) _____			

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: no x yes

Required color slides and/or photographs for the project site are included: no x yes

Date: 02 / 02 / 2007 Time: 11:58 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SWEENEY + STEPHEN STUBBINS Permit #: TE-799564-2

Site/Project Name: JANE CASINO Pool #: K

Township: T7N Range: R10E Section: 11, 14, 15 N W
38° 27' 48" lat. 120° 55' 40" long.

Temperature: Water: 9.8 °C Air: 15.0 °C

Pool Depth: at time of sampling: 55.0 cm Surface Area: 6.1 L
estimated maximum: 183.0 cm at time of sampling: 9.57 m x 21.34 m
estimated maximum: 13.72 m x 36.58 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): ppm or mg/l

Conductivity: uMHO

Dissolved NH₄: ppt or ppm

Dissolved Oxygen: ppm or mg/l

pH: 8.6

Turbidity: (secchi disc depth) 23.0 cm or: clear to bottom

Salinity: ppt or ppm

Total Dissolved Solids (TDS): ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no	1000's	Insects: (adult or larvae)		
Conchostracans:	<u>yes</u>	no	- Empty shells + small live	Anisoptera:	yes	no
Copepods:	<u>yes</u>	no	1000's	Zygoptera:	yes	no
Ostracods	yes	no		Hydrophilidae:	<u>yes</u>	no (2) - ABOLIS
Fish	yes	no		Dytiscidae:	yes	no
Frogs	yes	no		Corixidae:	yes	no
Salamanders	yes	no		Notonectidae:	yes	no
Waterfowl	<u>yes</u>	no	CANADA LOOSE SCAT	Belostomatidae:	yes	no
Other (specify)				Other (specify)	<u>CULICIDAE</u>	
					<u>CHAOBORIDAE - PHANTOM MIDLE - (1)</u>	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 02/02/2007 Time: 12:35 County: Amazon Quad: Amazon City

Collector(s): CHRISTOPHER J. JENSEN + STEPHEN STRINLER Permit #: TE-799564-2

Site/Project Name: JONE CASINO Pool #: G

Township: T7N Range: R10E Section: 11, 14, 15 ^N 35° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 13.2 °C Air: 20.0 °C

Pool Depth: at time of sampling: 24.0 cm estimated maximum: 35.0 cm
Surface Area: at time of sampling: 10.66 m x 13.72 m estimated maximum: 18.29 m x 21.34 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle light horses sheep other

moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 8.1 Turbidity: (secchi disc depth) >60 cm or: clear to bottom

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no 1000's
Conchostracans:	yes	no
Copepods:	<u>yes</u>	no 1000's
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify)	<u>Ampipoda = 1000's</u>	

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	<u>yes</u>	no 1 - ADULT
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify)	_____	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 02/02/2007 Time: 13:10 County: AMADOR Quad: AMADOR C17

Collector(s): CHRISTOPHER SPRENTZ + STEPHEN STRINGLER Permit #: TE-799564-2

Site/Project Name: JONES CASINO Pool #: F

Township: T7N Range: R10E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 125° 50' 40" long.

Temperature: Water: 7.8 °C Air: 24.5 °C

Pool Depth: at time of sampling: 92.0 cm estimated maximum: 160.0 cm
Surface Area: at time of sampling: 13.82 m x 25.91 m estimated maximum: 30.48 m x 51.82 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other

light

moderate

heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l

Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm

Dissolved Oxygen: _____ ppm or mg/l

pH: 8.1

Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom

Salinity: _____ ppt or ppm

Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no	1000's
Conchostracans:	yes	no	
Copepods:	<u>yes</u>	no	1000's
Ostracods	yes	no	
Fish	yes	no	
Frogs	yes	no	
Salamanders	yes	no	
Waterfowl	yes	no	
Other (specify)	<u>TUBEROSTIA (planarians)</u>		

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygotera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	<u>yes</u>	no 10's - Adults
Notonectidae:	<u>yes</u>	no 10 - Adults
Belostomatidae:	yes	no
Other (specify)	<u>CULICINAE</u>	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 02 / 02 / 2007 Time: 13:20 County: AMADOR Quad: Amador City

Collector(s): CHRISTOPHER GREENY + STEPHEN STINNER Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: N

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W 38° 27' 40" lat. 120° 20' 40" long.

Temperature: Water: _____ °C Air: 24.5 °C

Pool Depth: at time of sampling: _____ cm Surface Area: W L
at time of sampling: _____ m x _____ m
estimated maximum: _____ cm estimated maximum: _____ m x _____ m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other _____
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: _____ Turbidity: (secchi disc depth) _____ cm or: clear to bottom _____

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

• DRY

N

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)			
Anisoptera:	yes	no	
Zygoptera:	yes	no	
Hydrophilidae:	yes	no	
Dytiscidae:	yes	no	
Corixidae:	yes	no	
Notonectidae:	yes	no	
Belostomatidae:	yes	no	
Other (specify) _____			

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 02 / 02 / 2007 Time: 13:47 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SHERIDY + STEPHEN STRINBERG Permit #: TE-799564-2

Site/Project Name: IONIA CASINO Pool #: A

Township: T7N Range: R10E Section: 11, 14, 15 ^N ^W 38° 27' 40" lat. 120° 50' 40" long.

Temperature: Water: 7.0 °C Air: 25.0 °C

Pool Depth: at time of sampling: 122.0 cm estimated maximum: 213.4 cm
Surface Area: at time of sampling: 19.50 m x 22.86 m estimated maximum: 27.43 m x 30.48 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other
light moderate

heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 8.5 Turbidity: (secchi disc depth) 30.0 cm or: clear to bottom _____

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

• NOT A VERNAL POOL / PERENNIAL
• CATTLE POND

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)			
Anisoptera:	yes	no	
Zygoptera:	yes	no	
Hydrophilidae:	yes	no	
Dytiscidae:	yes	no	
Corixidae:	yes	no	
Notonectidae:	yes	no	
Belostomatidae:	yes	no	
Other (specify) _____			

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheets
Wet Season Survey February 15, 2007

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 02/15/2007 Time: 08:03 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SHEEHY Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: E

Township: T7N Range: R10E Section: 11, 14, 15 ^N _W 38° 27' 40" lat. 120° 50' 40" long.

Temperature: Water: 6.4 °C Air: 10.0 °C

Pool Depth: at time of sampling: 9.0 cm estimated maximum: 10.0 cm
Surface Area: W L at time of sampling: 2.44 m x 3.05 m
estimated maximum: 3.66 m x 4.57 m

Habitat Condition: (circle where appropriate)

- undisturbed **disturbed:** tire tracks **garbage** discing/plowing
- ungrazed **grazed:** **cattle** horses sheep other _____
 light **moderate** heavy
- land use of habitat: _____

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 8.0 Turbidity: (secchi disc depth) >60.0cm or: clear to bottom x

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

- PHOTO → #49

2

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _____			Other (specify) _____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 02 / 15 / 2007 Time: 08:44 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER STEEN Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: H

Township: T7N Range: R10E Section: 11, 14, 15 ^N 33° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 7.8 °C Air: 10.0 °C

Pool Depth: at time of sampling: 39.0 cm Surface Area: W L
at time of sampling: 7.62 m x 15.24 m
estimated maximum: 41.0 cm estimated maximum: 9.14 m x 16.76 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle
light

horses sheep other

moderate

heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l

Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm

Dissolved Oxygen: _____ ppm or mg/l

pH: 7.3

Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom

Salinity: _____ ppt or ppm

Total Dissolved Solids (TDS): _____ ppm

Notes:

• Photos → #1

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="radio"/>	no	1000's
Conchostracans:	<input type="radio"/>	yes	
Copepods:	<input checked="" type="radio"/>	no	100's
Ostracods	<input type="radio"/>	yes	
Fish	<input type="radio"/>	yes	
Frogs	<input type="radio"/>	yes	
Salamanders	<input type="radio"/>	yes	
Waterfowl	<input type="radio"/>	yes	
Other (specify)	_____		

Insects: (adult or larvae)				
Anisoptera:	<input type="radio"/>	yes	<input type="radio"/>	no
Zygoptera:	<input type="radio"/>	yes	<input type="radio"/>	no
Hydrophilidae:	<input type="radio"/>	yes	<input type="radio"/>	no
Dytiscidae:	<input type="radio"/>	yes	<input type="radio"/>	no
Corixidae:	<input type="radio"/>	yes	<input type="radio"/>	no
Notonectidae:	<input type="radio"/>	yes	<input type="radio"/>	no
Belostomatidae:	<input type="radio"/>	yes	<input type="radio"/>	no
Other (specify)	_____			

Hydracarina → ① (Adult)

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 02/15/2007 Time: 09:20 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SNEY Permit #: TE-799564-2

Site/Project Name: FONE CASINO Pool #: I

Township: T7N Range: R10E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 9.1 °C Air: 10.0 °C

Pool Depth: at time of sampling: 9.5 cm estimated maximum: 12.0 cm
Surface Area: at time of sampling: 1.52 m x 2.44 m estimated maximum: 1.83 m x 3.05 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle light horses sheep other moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 7.6 Turbidity: (secchi disc depth) > 60.0 cm or: clear to bottom

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

- PHOTO # 2, #3, #4

U.S. Fish and Wildlife Service Vernal Pool Data Sheet Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="checkbox"/>	no	1000's
Conchostracans:	<input type="checkbox"/>	yes	
Copepods:	<input checked="" type="checkbox"/>	no	100's
Ostracods	<input type="checkbox"/>	yes	
Fish	<input type="checkbox"/>	yes	
Frogs	<input type="checkbox"/>	yes	
Salamanders	<input type="checkbox"/>	yes	
Waterfowl	<input type="checkbox"/>	yes	
Other (specify)	_____		

Insects: (adult or larvae)

Anisoptera:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Zygoptera:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Hydrophilidae:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Dytiscidae:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Corixidae:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Notonectidae:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Belostomatidae:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Other (specify)	_____			

COLEOPTERA → LARVAE (Too small to ID.) → ①

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 02/15/2007 Time: 09:55 County: American Quad: American City

Collector(s): Christopher Sweeney Permit #: TE-799564-2

Site/Project Name: JONE CASINO Pool #: J

Township: T2N Range: R10E Section: 11, 14, 15 ^N ^W 38° 27' 40" lat. 120° 50' 48" long.

Temperature: Water: 11.3 °C Air: 15.0 °C

Pool Depth: at time of sampling: 152.0 cm
estimated maximum: 183.0 cm
Surface Area: ^W ^L
at time of sampling: 36.58 m x 60.96 m
estimated maximum: 45.72 m x 65.00 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other _____
light moderate heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
pH: 7.7 Turbidity: (secchi disc depth) 31.0 cm or: clear to bottom _____
Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

Cattle Ponds

Photo: #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
 (note reproductive status)

Notostracans:
 (note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no 1000's
 Conchostracans: yes no
 Copepods: yes no 1000's
 Ostracods yes no
 Fish yes no
 Frogs yes no 100's
 Salamanders yes no
 Waterfowl yes no
 Other (specify) CANADA GOOSE SEAT

Insects: (adult or larvae)

Anisoptera: yes no
 Zygoptera: yes no 10's (larvae)
 Hydrophilidae: yes no
 Dytiscidae: yes no
 Corixidae: yes no
 Notonectidae: yes no
 Belostomatidae: yes no
 Other (specify) CULICIDAE - 100's (larvae)

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="radio"/> yes	<input type="radio"/> no	100's
Conchostracans:	<input type="radio"/> yes	<input type="radio"/> no	
Copepods:	<input checked="" type="radio"/> yes	<input type="radio"/> no	100's
Ostracods	<input type="radio"/> yes	<input type="radio"/> no	
Fish	<input type="radio"/> yes	<input type="radio"/> no	
Frogs	<input checked="" type="radio"/> yes	<input type="radio"/> no	10's
Salamanders	<input type="radio"/> yes	<input type="radio"/> no	
Waterfowl	<input type="radio"/> yes	<input type="radio"/> no	
Other (specify)	_____		

Insects: (adult or larvae)		
Anisoptera:	<input type="radio"/> yes	<input type="radio"/> no
Zygoptera:	<input type="radio"/> yes	<input type="radio"/> no
Hydrophilidae:	<input type="radio"/> yes	<input type="radio"/> no
Dytiscidae:	<input type="radio"/> yes	<input type="radio"/> no
Corixidae:	<input type="radio"/> yes	<input type="radio"/> no
Notonectidae:	<input type="radio"/> yes	<input type="radio"/> no
Belostomatidae:	<input type="radio"/> yes	<input type="radio"/> no
Other (specify)	_____	

CULICIDAE → 10's (larvae)
 BEETLE → STYLO → 2 (ADULT)

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 02/15/2007 Time: 11:20 County: AMADOR Quad: AMADOR CITY

Collector(s): CHRISTOPHER SHEEN Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: K

Township: T2N Range: R10E Section: 11, 14, 15 ^N _W lat. 38° 27' 40" long. 120° 50' 40"

Temperature: Water: 13.0 °C Air: 19.2 °C

Pool Depth: at time of sampling: 122.0 cm Surface Area: 10.67 m x 25.91 m
estimated maximum: 182.0 cm estimated maximum: 13.72 m x 36.58 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other heavy
light moderate

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
pH: 7.7 Turbidity: (secchi disc depth) 19.0 cm or: clear to bottom _____
Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

• Photos → #20, #21, #22, #23, #24, #25

• Photos → #26, #27, #28
(HORSES)

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no	1000's
Conchostracans:	<u>yes</u>	no	1000's
Copepods:	<u>yes</u>	no	1000's
Ostracods	yes	no	
Fish	yes	no	
Frogs	yes	no	
Salamanders	yes	no	
Waterfowl	yes	no	
Other (specify)	<u>CANADA LEESE SCAT</u>		

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify)		

> COLEOPTERA (LARVAE)
- TOO SMALL

• CULICIDAE → 100's (LARVAE)
• COLEOPTERA → STREPTER → 1 (ADULT)

Voucher Specimens

• GASTROPODA - GYRAULUS sp. → 10's
→ PHYSIDAE → 10's (SHRUBS)

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no	1000's
Conchostracans:	yes	no	
Copepods:	<u>yes</u>	no	1000's
Ostracods	yes	no	
Fish	yes	no	
Frogs	yes	no	
Salamanders	yes	no	
Waterfowl	yes	no	
Other (specify)	_____		

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	<u>yes</u>	no - 100's (LARVAE)
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	<u>yes</u>	no - 100's (ADULTS)
Notonectidae:	<u>yes</u>	no - 10's (ADULTS)
Belostomatidae:	yes	no
Other (specify)	_____	

1 GERRHIDAE → STYGIDAE (ADULT) - 10's
 1 EPHEMEROPTERA → 10's (LARVAE)
 1 AMPHIBIOTA → 100's (ADULTS)

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
 (note reproductive status)

Notostracans:
 (note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="checkbox"/> yes	no	100's
Conchostracans:	yes	no	
Copepods:	<input checked="" type="checkbox"/> yes	no	100's
Ostracods	yes	no	
Fish	yes	no	
Frogs	yes	no	
Salamanders	yes	no	
Waterfowl	yes	no	
Other (specify)	<u>CANON LARVAE SCAR</u>		

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	<input checked="" type="checkbox"/> yes	no - 1 ADULT
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify)	_____	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 02/15/2007 Time: 13:40 County: Amador Quad: Amador City

Collector(s): CHRISTOPHER SKEEN Permit #: TE-799564-2

Site/Project Name: JANE CASINO Pool #: F

Township: T7N Range: R10E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 20' 40" long.

Temperature: Water: 15.0 °C Air: 18.0 °C

Pool Depth: at time of sampling: 88.0 cm Surface Area: W L
at time of sampling: 25.91 m x 45.72 m
estimated maximum: 100.0 cm estimated maximum: 30.48 m x 51.82 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 7.4 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom x

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

- photos → #40, #41, #42, #43, #44

U.S. Fish and Wildlife Service Vernal Pool Data Sheet Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no	1000's	Insects: (adult or larvae)			
Conchostracans:	<u>yes</u>	no	- 100's (very small)	Anisoptera:	<u>yes</u>	no	- ADULTS (10's)
Copepods:	<u>yes</u>	no	1000's	Zygoptera:	yes	no	
Ostracods	yes	no		Hydrophilidae:	<u>yes</u>	no	- ADULTS (10's)
Fish	yes	no		Dytiscidae:	yes	no	
Frogs	<u>yes</u>	no	- 10's	Corixidae:	<u>yes</u>	no	- ADULTS (10's)
Salamanders	yes	no		Notonectidae:	yes	no	
Waterfowl	yes	no		Belostomatidae:	yes	no	
Other (specify)	<u>Canidae, Leeches, Scat</u>			Other (specify)			

- Chironomidae → 100's (LARVAE)
- Culicidae → 10's (LARVAE)

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 02/15/2007 Time: 14:20 County: Amador Quad: Amador City

Collector(s): CHRISTOPHER STEEN Permit #: TE-799564-2

Site/Project Name: IONE CASINO Pool #: 5

Township: T7N Range: R10E Section: 11, 14, 15 ^N 38° 27' 40" lat. 122° 40' long.

Temperature: Water: 14.9 °C Air: 19.5 °C

Pool Depth: at time of sampling: 32.0 cm estimated maximum: 35.0 cm
Surface Area: at time of sampling: 15.24 m x 19.81 m estimated maximum: 18.29 m x 21.34 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other _____
light moderate heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 7.2 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom x

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

Pitfalls → #45, #46

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no 1000's
Conchostracans:	yes	no
Copepods:	<u>yes</u>	no 1000's
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify)	<u>CANADA GEESE SURT</u>	

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygotera:	yes	no
Hydrophilidae:	<u>yes</u>	no - ADULT (10's)
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	<u>yes</u>	no - ADULT (10's)
Belostomatidae:	yes	no
Other (specify)		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no x yes

Required color slides and/or photographs for the project site are included: ___ no x yes

Date: 02/15/2007 Time: 14:45 County: AMADOR Quad: AMADOR City

Collector(s): CHRISTOPHER SPOON Permit #: TE-799564-2

Site/Project Name: LONE CASINO Pool #: W

Township: T7N Range: R10E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 19.0 °C Air: 19.5 °C

Pool Depth: at time of sampling: 10.0 cm Surface Area: W L
 at time of sampling: 4.57 m x 5.49 m

estimated maximum: 15.0 cm estimated maximum: 6.10 m x 7.62 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing

- ungrazed grazed: cattle horses sheep other _____
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 8.0 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom x

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

• PHOTO → #47

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	<u>yes</u>	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify)	_____	

Insects: (adult or larvae)			
Anisoptera:	yes	no	
Zygoptera:	yes	no	
Hydrophilidae:	<u>yes</u>	no	NO ADULTS - 10'S
Dytiscidae:	yes	no	
Corixidae:	yes	no	
Notonectidae:	yes	no	
Belostomatidae:	yes	no	
Other (specify)	_____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 02/15/2007 Time: 15:12 County: Amador Quad: Amador City

Collector(s): Christopher Sheshy Permit #: TE-799564-2

Site/Project Name: FONE CASINO Pool #: X

Township: T2N Range: R10E Section: 11, 14, 15 ^N 38°27'40" lat. 120°20'40" long. ^W

Temperature: Water: 19.5 °C Air: 19.5 °C

Pool Depth: at time of sampling: 15.5 cm estimated maximum: 20.0 cm
Surface Area: ^W 2.44 m x ^L 3.96 m estimated maximum: 3.66 m x 4.57 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed - grazed: cattle horses sheep other _____
 light moderate heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
pH: 7.6 Turbidity: (secchi disc depth) 50.0 cm or: clear to bottom _____
Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

- Proto — # 48
- Rare very abundant in Colon

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	<u>yes</u>	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify)	_____	

Insects: (adult or larvae)		
Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify)	_____	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheets
Wet Season Survey March 2, 2007

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 02 / 2007 Time: 08:02 County: Amador Quad: Amador City

Collector(s): CHRISTOPHER SWEET Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: E

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 5.3 °C Air: 8.0 °C

Pool Depth: at time of sampling: 10.0 cm estimated maximum: 12.0 cm
Surface Area: W L
at time of sampling: 2.44 m x 3.05 m
estimated maximum: 3.66 m x 4.57 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other _____
light moderate heavy
- land use of habitat: _____

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 7.7 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify) _____		

Amphipoda - 10's

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 02 / 2007 Time: 08:46 County: Amador Quad: Amador City

Collector(s): CHRISTOPHER SHEEHAN Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: H

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 6.0 °C Air: 7.5 °C

Pool Depth:	Surface Area:
at time of sampling: <u>90.0</u> cm	at time of sampling: <u>7.62</u> m x <u>15.24</u> m
estimated maximum: <u>50.0</u> cm	estimated maximum: <u>9.14</u> m x <u>16.76</u> m

Habitat Condition: (circle where appropriate)

- undisturbed	disturbed:	tire tracks	garbage	discing/plowing
- ungrazed	grazed:	<u>cattle</u> light	horses	sheep other <u>moderate</u> heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
 Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
 pH: 7.0 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X
 Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="radio"/> yes	no 10's	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	<input checked="" type="radio"/> yes	no 100's	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	<input checked="" type="radio"/> yes	no 100's	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	<input checked="" type="radio"/> yes	no CANADA GEESD ADULTS (10'S)	Belostomatidae:	yes	no
Other (specify) _____		+ SCAT	Other (specify) _____		

CIRIPANOMIGAE - LARVAE - 100'S

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 02 / 2007 Time: 09:35 County: Amador Quad: Amador City

Collector(s): Christopher Sweeney Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: I

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 8.8 °C Air: 13.9 °C

Pool Depth: at time of sampling: 9.5 cm estimated maximum: 12.0 cm
Surface Area: ^W 2.13 m x ^L 4.57 m estimated maximum: 3.05 m x 6.10 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other _____
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 7.7 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
 (note reproductive status)

Notostracans:
 (note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no
 Conchostracans: yes no
 Copepods: yes no
 Ostracods yes no
 Fish yes no
 Frogs yes no
 Salamanders yes no
 Waterfowl yes no
 Other (specify) CANADA GOOSE SCOT

Insects: (adult or larvae)

Anisoptera: yes no
 Zygoptera: yes no
 Hydrophilidae: yes no
 Dytiscidae: yes no
 Corixidae: yes no
 Notonectidae: yes no
 Belostomatidae: yes no
 Other (specify) _____

Too Small to ID,
 in Field
 > Coleoptera
 Adults (10's)

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
 (note reproductive status)

Notostracans:
 (note reproductive status)

Species Observations (Optional):

Cladocerans:	<input checked="" type="checkbox"/> yes	no 1000's	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	<input checked="" type="checkbox"/> yes	no 1000's	Zygoptera: LARVAE	<input checked="" type="checkbox"/> yes	no 100's
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	<input checked="" type="checkbox"/> yes	no 100's	Corixidae: ADULTS	<input checked="" type="checkbox"/> yes	no 10's
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	<input checked="" type="checkbox"/> yes	no CANADA GOOSE ADULTS (10's)	Belostomatidae:	yes	no
Other (specify)	CANADA GOOSE SEAT	BLUE HERON (1)	Other (specify)	CHIRONOMIDAE - 100's (LARVAE) ? DIPTERA (Tipulidae larvae) - 10's	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 02 / 2007 Time: 10:40 County: Amador Quad: Amador City

Collector(s): Christophe J. Smith Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: L

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N _{38° 27' 40"} lat. ^W _{120° 50' 40"} long.

Temperature: Water: 10.0 °C Air: 17.5 °C

Pool Depth: at time of sampling: 152.4 cm estimated maximum: 213.0 cm
Surface Area: W L at time of sampling: 12.19 m x 16.76 m
estimated maximum: 18.29 m x 21.34 m

Habitat Condition: (circle where appropriate)

<input checked="" type="checkbox"/> - undisturbed	disturbed:	tire tracks	garbage	discing/plowing
<input checked="" type="checkbox"/> - ungrazed	grazed:	cattle light	horses moderate	sheep other heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 7.7 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
 (note reproductive status)

Notostracans:
 (note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no
 Conchostracans: yes no
 Copepods: yes no
 Ostracods yes no
 Fish yes no
 Frogs yes no 10's
 Salamanders yes no
 Waterfowl yes no Duck's (2) ♀ + ♂
 Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no
 Zygoptera: yes no
 Hydrophilidae: yes no
 Dytiscidae: yes no
 Corixidae: yes no
 Notonectidae: yes no
 Belostomatidae: yes no

Other (specify) CULICIDAE - 100'S LARVAE
* BEBIIDAE - STENOBA (3) ADULTS

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 02 / 2007 Time: 11:05 County: Amador Quad: Amador City

Collector(s): CHRISTOPHER SWEET Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: K

Township: T7N Range: R 10 E Section: 11, 14, 15 $38^{\circ} 27' 40''$ ^N lat. $120^{\circ} 50' 40''$ ^W long.

Temperature: Water: 11.4 °C Air: 24.6 °C

Pool Depth: at time of sampling: 152.0 cm Surface Area: W L
at time of sampling: 10.67 m x 25.91 m

estimated maximum: 183.0 cm estimated maximum: 13.72 m x 36.58 m

Habitat Condition: (circle where appropriate)

- | | | | | |
|---|---|--|----------|---|
| <input checked="" type="checkbox"/> - undisturbed | disturbed: | tire tracks | garbage | discing/plowing |
| <input type="checkbox"/> - ungrazed | <input checked="" type="checkbox"/> grazed: | <input checked="" type="checkbox"/> cattle | horses | sheep other |
| | | light | moderate | <input checked="" type="checkbox"/> heavy |

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 7.4 Turbidity: (secchi disc depth) 55.0 cm or: clear to bottom _____

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="checkbox"/>	no 1000's
Conchostracans:	<input checked="" type="checkbox"/>	no 100's
Copepods:	<input checked="" type="checkbox"/>	no 1000's
Ostracods	<input type="checkbox"/>	no
Fish	<input type="checkbox"/>	no
Frogs	<input checked="" type="checkbox"/>	no 100's
Salamanders	<input type="checkbox"/>	no
Waterfowl	<input type="checkbox"/>	no
Other (specify) _____		

Insects: (adult or larvae)

Anisoptera:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Zygoptera:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Hydrophilidae:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Dytiscidae:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Corixidae: ADULTS	<input checked="" type="checkbox"/>	yes	<input type="checkbox"/>	no 10's
Notonectidae:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Belostomatidae:	<input type="checkbox"/>	yes	<input type="checkbox"/>	no
Other (specify) _____				

> Coleoptera Adults
10's

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 02 / 2007 Time: 12:17 County: Amador Quad: Amador City

Collector(s): Christopher Sweeney Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: A

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 10.2 °C Air: 20.2 °C

Pool Depth: at time of sampling: 183.0 cm estimated maximum: 213.4 cm
Surface Area: W L at time of sampling: 24.38 m x 28.96 m
estimated maximum: 27.43 m x 30.48 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other
light moderate

heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 7.8 Turbidity: (secchi disc depth) 52.0 cm or: clear to bottom _____

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no 1000's
 Conchostracans: yes no
 Copepods: yes no 1000's
 Ostracods yes no
 Fish yes no
 Frogs yes no
 Salamanders yes no
 Waterfowl yes no
 Other (specify) _____

* Amphipods → 1000's

Insects: (adult or larvae)

Anisoptera: yes no
 Zygoptera: LARVAE yes no 100's
 Hydrophilidae: yes no } COLEOPTERA - 10's
 Dytiscidae: yes no } ADULTS
 Corixidae: ADULTS yes no 100's
 Notonectidae: ADULTS yes no 100's
 Belostomatidae: yes no
 Other (specify) Nepidae → ADULTS (10's)

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no 100's
Conchostracans:	yes	no
Copepods:	<u>yes</u>	no 100's
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)		
Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae: Asellidae	<u>yes</u>	no 10's
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify) _____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 02 / 2007 Time: 13:40 County: Amador Quad: Amador City

Collector(s): Christopher Jensen Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: F

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 14.1 °C Air: 22.1 °C

Pool Depth: at time of sampling: 100.0 cm Surface Area: W L
at time of sampling: 25.91 m x 45.72 m

estimated maximum: 120.0 cm estimated maximum: 30.48 m x 51.82 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 7.8 Turbidity: (secchi disc depth) _____ cm or: clear to bottom _____

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
 (note reproductive status)

Notostracans:
 (note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no 1000's
 Conchostracans: yes no 100's
 Copepods: yes no 1000's
 Ostracods yes no 1000's
 Fish yes no
 Frogs (Tadpoles) yes no 100's
 Salamanders yes no
 Waterfowl yes no
 Other (specify) Canals Boats Seal
• PLATYHELMINTHIC 10's

Insects: (adult or larvae)

Anisoptera: ADULTS yes no
 Zygoptera: yes no
 Hydrophilidae: yes no
 Dytiscidae: yes no
 Corixidae: ADULTS yes no 10's
 Notonectidae: ADULTS yes no 10's
 Belostomatidae: yes no
 Other (specify) _____

} COLEOPTERA LARVAE
10's

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 02 / 2007 Time: 14:05 County: Amador Quad: Amador City

Collector(s): Christopher Sney Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: G

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 16.6 °C Air: 19.7 °C

Pool Depth: at time of sampling: 37.0 cm estimated maximum: 40.0 cm
Surface Area: W L at time of sampling: 15.24 m x 19.81 m
estimated maximum: 18.29 m x 21.34 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other _____
 light moderate heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
pH: 7.5 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X
Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no 1000's
 Conchostracans: yes no
 Copepods: yes no 1000's
 Ostracods yes no 1000's
 Fish yes no
 Frogs yes no
 Salamanders yes no
 Waterfowl yes no
 Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no
 Zygoptera: yes no
 Hydrophilidae: yes no
 Dytiscidae: yes no
 Corixidae: yes no
 Notonectidae: yes no
 Belostomatidae: yes no
 Other (specify) _____

Amphipods → 100's

CIRIPED LARVAE 100's

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
 (note reproductive status)

Notostracans:
 (note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no 100's
 Conchostracans: yes no
 Copepods: yes no 1000's
 Ostracods yes no
 Fish yes no
 Frogs yes no 10's
 Salamanders yes no
 Waterfowl yes no
 Other (specify) _____

Insects: (adult or larvae)
 Anisoptera: yes no
 Zygoptera: yes no
 Hydrophilidae: yes no 10's
 Dytiscidae: yes no
 Corixidae: yes no
 Notonectidae: yes no 10's
 Belostomatidae: yes no
 Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify) _____		

Nothing

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheets
Wet Season Survey March 19, 2007

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	yes	no
Ostracods	yes	no
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify) _____		

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygotera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify) _____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 19 / 2007 Time: 11:48 County: Amador Quad: Amador City

Collector(s): CPS Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: H

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 23.0 °C Air: 19.8 °C

Pool Depth: at time of sampling: 13.0 cm
estimated maximum: 30.0 cm

Surface Area: ^W 3.05 m x ^L 3.05 m
estimated maximum: 9.14 m x 16.76 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other _____
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 9.8 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no	1000's
Conchostracans:	yes	no	
Copepods:	<u>yes</u>	no	1000's
Ostracods	yes	no	
<u>Fish</u>	<u>yes</u>	no	10's
Frogs	yes	no	
Salamanders	yes	no	
Waterfowl	yes	no	
Other (specify) _____			

Insects: (adult or larvae)

Anisoptera:	yes	no	
Zygoptera:	yes	no	
Hydrophilidae:	yes	no	
Dytiscidae: Larvae + Adults	<u>yes</u>	no	10's
Corixidae:	yes	no	
Notonectidae:	yes	no	
Belostomatidae:	yes	no	
Other (specify) <u>Culicidans</u>			<u>LARVAE - 100's</u>

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 19 / 2007 Time: 12:17 County: Amador Quad: Amador City

Collector(s): CPJ Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: J

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N_{38° 27' 40"} lat. ^W_{120° 50' 40"} long.

Temperature: Water: 22.2 °C Air: 22.5 °C

Pool Depth:	Surface Area:
at time of sampling: <u>152.4</u> cm	at time of sampling: <u>64.01</u> m x <u>91.44</u> m
estimated maximum: <u>213.40</u> cm	estimated maximum: <u>91.44</u> m x <u>121.92</u> m

Habitat Condition: (circle where appropriate)

<u>- undisturbed</u>	disturbed:	tire tracks	garbage	discing/plowing
- ungrazed	<u>grazed:</u>	<u>cattle</u> light	horses	sheep other _____ <u>moderate</u> heavy
- land use of habitat:				

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
pH: 8.5 Turbidity: (secchi disc depth) > 30.0 cm or: clear to bottom X
Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no 1000's	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	<u>yes</u>	no 1000's	Zygoptera: LARVAE	<u>yes</u>	no 100's
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
FROGS (Bull)	<u>yes</u>	no 10's	Corixidae: ADULTS	<u>yes</u>	no 100's
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	<u>yes</u>	no 10's	Belostomatidae:	yes	no
Other (specify)	<u>GASTROPOD - (Physidae) - 100's</u>		Other (specify)	<u>Culicidae</u>	<u>larvae 100's</u>
				<u>Diptera - 100's</u>	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no yes

Required color slides and/or photographs for the project site are included: ___ no yes

Date: 03 / 19 / 2007 Time: 12:56 County: Amador Quad: Amador City

Collector(s): CPS Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: L

Township: T7N Range: R 10 E Section: 11, 14, 15 $38^{\circ} 27' 40''$ lat. $120^{\circ} 50' 40''$ long.

Temperature: Water: 22.5 °C Air: 22.3 °C

Pool Depth:		Surface Area:	<u>W</u>	<u>L</u>
at time of sampling:	<u>14.0</u> cm	at time of sampling:	<u>3.66</u> m x <u>4.27</u> m	
estimated maximum:	<u>213.0</u> cm	estimated maximum:	<u>18.29</u> m x <u>21.34</u> m	

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed: cattle horses sheep other _____
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: _____ Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom

Salinity: 7.7 ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no	1000's
Conchostracans:	yes	no	
Copepods:	<u>yes</u>	no	1000's
Ostracods	yes	no	
Fish	yes	no	
<u>Frogs</u>	<u>yes</u>	no	10's
Salamanders	yes	no	
Waterfowl	yes	no	
Other (specify) _____			

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera: <u>larvae</u>	<u>yes</u>	no 10's
Hydrophilidae:	yes	no
Dytiscidae: <u>larvae</u>	<u>yes</u>	no 10's
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify) <u>Culicidae - larvae - 1000's</u>		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no	1000's
Conchostracans:	<u>yes</u>	no	100's
Copepods:	<u>yes</u>	no	1000's
Ostracods	yes	no	
Fish	yes	no	
Frogs	<u>yes</u>	no	100's
Salamanders	yes	no	
Waterfowl	yes	no	
Other (specify)	<u>GASTROPODA - (Physians) - 100's</u>		

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae: ADULT	<u>yes</u>	no 10's
Dytiscidae: LARVAE	<u>yes</u>	no 10's
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify)	_____	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="radio"/> yes	no 1000's	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	<input checked="" type="radio"/> yes	no 1000's	Zygoptera: LAEVIS	<input checked="" type="radio"/> yes	no 10's
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs (Bull)	<input checked="" type="radio"/> yes	no 10's	Corixidae:	<input checked="" type="radio"/> yes	no 100's
Salamanders	yes	no	Notonectidae:	<input checked="" type="radio"/> yes	no 100's
Waterfowl	<input checked="" type="radio"/> yes	no - (2) Duck (♀ + ♂)	Belostomatidae:	yes	no
Other (specify)	Amphipods - 1000's Platyhelminths - 10's		Other (specify)	_____	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 19 / 2007 Time: 15:11 County: Amador Quad: Amador City

Collector(s): CPJ Permit #: TE-799564-2

Site/Project Name: Ione Casino Pool #: F

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 23.7 °C Air: 21.3 °C

Pool Depth: at time of sampling: 43.0 cm
estimated maximum: 120.0 cm

Surface Area: W L
at time of sampling: 17.07 m x 17.68 m
estimated maximum: 30.48 m x 51.82 m

Habitat Condition: (circle where appropriate)

undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed cattle horses sheep other
light moderate heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm Dissolved Oxygen: ___ ppm or mg/l

pH: 9.2 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X

Salinity : ___ ppt or ppm Total Dissolved Solids (TDS): ___ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no 1000's
 Conchostracans: yes no 100's
 Copepods: yes no 1000's
 Ostracods yes no
 Fish yes no
 Frogs yes no 100's
 Salamanders yes no
 Waterfowl yes no
 Other (specify) Platyhelminthes → 100's

Insects: (adult or larvae)

Anisoptera: yes no
 Zygoptera: LARVAE yes no 10's
 Hydrophilidae: ADULT yes no 10's
 Dytiscidae: LARVAE yes no 10's
 Corixidae: yes no
 Notonectidae: yes no
 Belostomatidae: yes no
 Other (specify) _____

CANADA GEES-SEAT

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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F

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no 1000's
Conchostracans:	yes	no
Copepods:	<u>yes</u>	no 1000's
Ostracods	yes	no
Fish	yes	no
Frogs	<u>yes</u>	no 100's
Salamanders	yes	no
Waterfowl	yes	no
Other (specify)	<u>CANADA GOOSE → SCAT</u>	

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify)	_____	

> Coleoptera Adults
10's

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheets
Wet Season Survey March 30, 2007

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: no yes

Required color slides and/or photographs for the project site are included: no yes

Date: 03 / 30 / 2007 Time: _____ County: Amador Quad: Amador City

Collector(s): CPS + SMJ Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: SEE NOTES

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: _____ °C Air: _____ °C

Pool Depth:	Surface Area:
at time of sampling: _____ cm	at time of sampling: _____ m x _____ m
estimated maximum: _____ cm	estimated maximum: _____ m x _____ m

Habitat Condition: (circle where appropriate)

- | | | | | | |
|------------------------|------------|-------------|---------|-----------------|-------------|
| - undisturbed | disturbed: | tire tracks | garbage | discing/plowing | |
| - ungrazed | grazed: | cattle | horses | sheep | other _____ |
| | | light | | moderate | heavy |
| - land use of habitat: | | | | | |

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
pH: _____ Turbidity: (secchi disc depth) _____ cm or: clear to bottom _____
Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

dry → E, J, N, W, X

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03/30/2007 Time: 08:12 County: Amador Quad: Amador City

Collector(s): CPS + SMS Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: H

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 9.8 °C Air: 12.4 °C

Pool Depth: at time of sampling: 14.0 cm estimated maximum: 50.0 cm
Surface Area: W L at time of sampling: 2.13 m x 3.35 m
estimated maximum: 9.14 m x 16.76 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other _____
light moderate heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 6.3 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X

Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no
Conchostracans:	yes	no
Copepods:	<u>yes</u>	no 1000's
Ostracods	<u>yes</u>	no 10's
Fish	yes	no
Frogs	yes	no
Salamanders	yes	no
Waterfowl	yes	no
Other (specify)	<u>PLATHHELMINTHES - 10's</u>	

Insects: (adult or larvae)			
Anisoptera: LARVAE	<u>yes</u>	no	10's
Zygoptera:	yes	no	
Hydrophilidae: ADULT	<u>yes</u>	no	10's
Dytiscidae: LARVAE	<u>yes</u>	no	10's
Corixidae:	yes	no	
Notonectidae:	yes	no	
Belostomatidae:	yes	no	
Other (specify)	_____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no 1000's
 Conchostracans: yes no 100's
 Copepods: yes no 1000's
 Ostracods: yes no
 Fish: yes no
 Frogs: yes no 100's
 Salamanders: yes no
 Waterfowl: yes no CANADA GOOSE
 Other (specify) LANTROPIDIA

Insects: (adult or larvae)

Anisoptera: yes no
 Zygoptera: Larvae yes no 100's
 Hydrophilidae: Adults yes no 100's
 Dytiscidae: yes no
 Corixidae: Adults yes no 100's
 Notonectidae: yes no
 Belostomatidae: yes no
 Other (specify) Culicidans - (Larvae) - 100's
Coleoptera - (Adults) - 10's

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no 1000's
Conchostracans:	<u>yes</u>	no 100's
Copepods:	<u>yes</u>	no 1000's
Ostracods	yes	no
Fish	yes	no
Frogs	<u>yes</u>	no 10's
Salamanders	yes	no
Waterfowl	yes	no
Other (specify)	HIRUDINEA - 10's	

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae: Adults	<u>yes</u>	no 10's
Notonectidae:	yes	no
Belostomatidae:	yes	no

Other (specify) Culicidae - 100's (Larvae)

- PLATYHELMINTHES - 100's

- LACROPOD - Pupa / PUPILIA

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no 1000's
 Conchostracans: yes no
 Copepods: yes no 1000's
 Ostracods yes no
 Fish yes no
 Frogs yes no 10's
 Salamanders yes no
 Waterfowl yes no
 Other (specify) Amphipods - 1000's

Insects: (adult or larvae)

Anisoptera: yes no
 Zygoptera: LARVAE yes no 10's
 Hydrophilidae: yes no
 Dytiscidae: yes no
 Corixidae: ADULT yes no 100's
 Notonectidae: ADULT yes no 100's
 Belostomatidae: yes no
 Other (specify) GERRIDAE - 10's (ADULT)

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 30 / 2007 Time: 12:40 County: Amador Quad: Amador City

Collector(s): CPI Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: F

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 15.1 °C Air: 23.0 °C

Pool Depth: at time of sampling: 37.0 cm estimated maximum: 120.0 cm
Surface Area: W7 L at time of sampling: 10.67 m x 14.63 m
estimated maximum: 30.48 m x 51.82 m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other _____
 light moderate heavy
- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
pH: 7.4 Turbidity: (secchi disc depth) > 60.0 cm or: clear to bottom X
Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<u>yes</u>	no	1000's
Conchostracans:	<u>yes</u>	no	100's
Copepods:	<u>yes</u>	no	1000's
Ostracods	yes	no	
Fish	yes	no	
Frogs	<u>yes</u>	no	1000's
Salamanders	yes	no	
Waterfowl	yes	no	
Other (specify)	<u>PLATYHELMINTHES ~ 100's</u>		

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae: ADULTS	<u>yes</u>	no 100's
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify)	_____	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no 1000's
 Conchostracans: yes no 10's
 Copepods: yes no 1000's
 Ostracods: yes no
 Fish: yes no
 Frogs: yes no 100's
 Salamanders: yes no
 Waterfowl: yes no
 Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no
 Zygoptera: yes no
 Hydrophilidae: ^{Larvae} yes no 10's
 Dytiscidae: ^{Adults} yes no
 Corixidae: ^{Adults} yes no 10's
 Notonectidae: yes no
 Belostomatidae: yes no
 Other (specify) _____

• Amphipods → 100's
 • Hydracarina → 10's

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species # Individuals Accession/Catalog # Pool #



**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 03 / 30 / 2007 Time: 14:20 County: Amador Quad: Amador City

Collector(s): CPS Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: L

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 18.7 °C Air: 28.0 °C

Pool Depth:	Surface Area:
at time of sampling: <u>16.0</u> cm	at time of sampling: <u>3.04</u> m x <u>3.96</u> m
estimated maximum: <u>213.0</u> cm	estimated maximum: <u>18.29</u> m x <u>21.34</u> m

Habitat Condition: (circle where appropriate)

<u>- undisturbed</u>	disturbed:	tire tracks	garbage	discing/plowing	
<u>- ungrazed</u>	grazed:	cattle	horses	sheep	other _____
		light	moderate	heavy	

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l

pH: 7.2 Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X

Salinity : _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="radio"/> yes	no 1000's
Conchostracans:	yes	no
Copepods:	<input checked="" type="radio"/> yes	no 1000's
Ostracods	yes	no
Fish	yes	no
Frogs	<input checked="" type="radio"/> yes	no 10's
Salamanders	yes	no
Waterfowl	yes	no
Other (specify)	<u>Gastropods - Pisces / Pinguicula</u>	

Insects: (adult or larvae)

Anisoptera:	<input type="radio"/> yes	<input type="radio"/> no
Zygotera: LARVAE	<input checked="" type="radio"/> yes	no 10's
Hydrophilidae:	yes	no
Dytiscidae:	yes	no
Corixidae:	yes	no
Notonectidae:	yes	no
Belostomatidae:	yes	no
Other (specify)	_____	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheets
Wet Season Survey April 13, 2007

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	yes	no	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera:	yes	no
Copepods:	yes	no	Zygoptera:	yes	no
Ostracods	yes	no	Hydrophilidae:	yes	no
Fish	yes	no	Dytiscidae:	yes	no
Frogs	yes	no	Corixidae:	yes	no
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	yes	no	Belostomatidae:	yes	no
Other (specify) _____			Other (specify) _____		

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
 (note reproductive status)

Notostracans:
 (note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="radio"/> yes	no 1000's	Insects: (adult or larvae)		
Conchostracans:	yes	no	Anisoptera: LARVAE	<input checked="" type="radio"/> yes	no 10's
Copepods:	<input checked="" type="radio"/> yes	no 1000's	Zygoptera: LARVAE	<input checked="" type="radio"/> yes	no 100's
Ostracods	yes	no	Hydrophilidae: ADULTS	<input checked="" type="radio"/> yes	no 100's
Fish	yes	no	Dytiscidae:	yes	no
Frogs	<input checked="" type="radio"/> yes	no 100's	Corixidae: ADULTS	<input checked="" type="radio"/> yes	no 100's
Salamanders	yes	no	Notonectidae:	yes	no
Waterfowl	<input checked="" type="radio"/> yes	no 10's (DUCK + COMMON LEISER)	Belostomatidae:	yes	no
Other (specify)	Larvae of Beetles = 100's		Other (specify)	GENERALIST LARVAE - 10's	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
 (note reproductive status)

Notostracans:
 (note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no 1000's
 Conchostracans: yes no 1000's
 Copepods: yes no 1000's
 Ostracods: yes no
 Fish: yes no
 Frogs: yes no 100's
 Salamanders: yes no
 Waterfowl: yes no

Insects: (adult or larvae)

Anisoptera: yes no
 Zygoptera: LARVAE yes no 100's
 Hydrophilidae: LARVAE yes no 10's
 Dytiscidae: LARVAE yes no 10's
 Corixidae: ADULTS yes no 100's
 Notonectidae: ADULTS yes no 10's
 Belostomatidae: yes no

Other (specify) Larva pupa - Proba / P. 198710 - 100's
Hirudinean (1)

Other (specify) Chironomidae - Larvae - 100's

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
 (note reproductive status)

Notostracans:
 (note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no 1000's
 Conchostracans: yes no
 Copepods: yes no 1000's
 Ostracods yes no
 Fish yes no
 Frogs yes no 10's
 Salamanders yes no
 Waterfowl yes no

Insects: (adult or larvae)

Anisoptera: yes no 10's
 Zygoptera: yes no 100's
 Hydrophilidae: yes no
 Dytiscidae: yes no
 Corixidae: yes no
 Notonectidae: yes no
 Belostomatidae: yes no

Other (specify) Amphipods - Pigea / Pigeilla
Hypocyclops - 10's

Other (specify) Culicidae - larvae - 100's

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="checkbox"/> yes	no 1000's
Conchostracans:	yes	no
Copepods:	<input checked="" type="checkbox"/> yes	no 1000's
Ostracods	yes	no
Fish	yes	no
Frogs	<input checked="" type="checkbox"/> yes	no 100's
Salamanders	yes	no
Waterfowl	yes	no
Other (specify)	<u>Ampelisca → 100's</u>	

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera:	yes	no
Hydrophilidae: LARVAE	<input checked="" type="checkbox"/> yes	no 10's
Dytiscidae: LARVAE	<input checked="" type="checkbox"/> yes	no 10's
Corixidae: ADULTS	<input checked="" type="checkbox"/> yes	no 100's
Notonectidae: ADULTS	<input checked="" type="checkbox"/> yes	no 10's
Belostomatidae:	yes	no
Other (specify)	_____	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 04 / 13 / 2007 Time: 18:01 County: Amador Quad: Amador City

Collector(s): CPS + SMI Permit #: TE-799564-2

Site/Project Name: lone Casino Pool #: F

Township: T7N Range: R 10 E Section: 11, 14, 15 ^N 38° 27' 40" lat. ^W 120° 50' 40" long.

Temperature: Water: 18.7 °C Air: 20.0 °C

Pool Depth: at time of sampling: 35.0 cm estimated maximum: 120.0 cm
Surface Area: at time of sampling: 9.14 m x 13.72 m estimated maximum: 30.48 m x 51.82 m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed:

cattle horses sheep other

light

moderate

heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l

Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm

Dissolved Oxygen: _____ ppm or mg/l

pH: 7.5

Turbidity: (secchi disc depth) >60.0 cm or: clear to bottom X

Salinity: _____ ppt or ppm

Total Dissolved Solids (TDS): _____ ppm

Notes:

**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans:	<input checked="" type="radio"/> yes	no	1000's
Conchostracans:	<input checked="" type="radio"/> yes	no	1000's
Copepods:	<input checked="" type="radio"/> yes	no	1000's
Ostracods	yes	no	
Fish	yes	no	
Frogs	<input checked="" type="radio"/> yes	no	100's
Salamanders	yes	no	
Waterfowl	<input checked="" type="radio"/> yes	no	(2 seen)
Other (specify)	<u>Amphipods</u>		

Insects: (adult or larvae)

Anisoptera:	yes	no
Zygoptera: <u>LARVAE</u>	<input checked="" type="radio"/> yes	no 100's
Hydrophilidae: <u>ADULT</u>	<input checked="" type="radio"/> yes	no 10's
Dytiscidae:	yes	no
Corixidae: <u>ADULT</u>	<input checked="" type="radio"/> yes	no 10's
Notonectidae: <u>ADULT</u>	<input checked="" type="radio"/> yes	no 10's
Belostomatidae:	yes	no
Other (specify)	_____	

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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**U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey**

Note: Please fill out the required information completely for each site visit.

Species Observations: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

Notostracans:
(note reproductive status)

Species Observations (Optional) :

Cladocerans: yes no 1000's
 Conchostracans: yes no
 Copepods: yes no 1000's
 Ostracods yes no
 Fish yes no
 Frogs yes no
 Salamanders yes no
 Waterfowl yes no 2 Ducks
 Other (specify) _____

Insects: (adult or larvae)
 Anisoptera: yes no
 Zygoptera: LARVAE yes no 1000's
 Hydrophilidae: yes no
 Dytiscidae: yes no
 Corixidae: ADULTS yes no 1000's
 Notonectidae: ADULTS yes no 1000's
 Belostomatidae: yes no
 Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

<u>Species</u>	<u># Individuals</u>	<u>Accession/Catalog #</u>	<u>Pool #</u>
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Attachment 4

Site Photos



PHOTO 1

Wetland E - Adjacent to drainage ditch C and D and located on the east side of the fence. Photograph was taken facing northeast.



PHOTO 3

Wetland G - Located in the center of the property. Photograph was taken facing northeast.



PHOTO 2

Wetland F - Located in the center of the property. Photograph was taken facing north.



PHOTO 4

Potential vernal pool H - Located along the northwest part of the property. Photograph was taken facing north.



PHOTO 5

Wetland I - Seep on the west side of the dam of Wetland J. Photograph was taken facing west.



PHOTO 6

Cattle pond J - A large cattle pond along the northern boundary of the property. Photograph was taken facing north.



PHOTO 7

Cattle pond K - Located in the central northern part of the property. Photograph was taken facing southeast.



PHOTO 8

Cattle pond L - Located on the northeastern boundary of the property. Photograph was taken facing southeast.

Attachment 5
Report of Findings
Regarding Federally-Listed Branchiopods
For
Miwok Casino
Amador County, California
ECORP 2005

REPORT OF FINDINGS
REGARDING FEDERALLY-LISTED BRANCHIOPODS
FOR
MIWOK CASINO
Amador County, California

DRAFT

July 27, 2005

Prepared for:
Analytical Environmental Services



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

**REPORT OF FINDINGS
REGARDING FEDERALLY-LISTED BRANCHIOPODS**

CONTENTS

MIWOK CASINO

INTRODUCTION 1
METHODS 1
RESULTS 3
SUMMARY 3

LIST OF FIGURES

Figure 1. Project Site and Vicinity Map 2
Figure 2. Vernal Pool and Seasonal Wetland Sampling Locations 4

LIST OF ATTACHMENTS

- Attachment A – Wet Season Survey Data
- Attachment B – Representative Site Photos – 12/22/04

INTRODUCTION

On behalf of Analytical Environmental Services, ECORP Consulting, Inc., has conducted a wet season survey of the proposed Miwok Casino Site (project) located in western Amador County, California. The purpose of the survey was to determine the presence of aquatic crustacean (branchiopod) species listed by the U.S. Fish and Wildlife Service (USFWS) [(i.e., vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardii*)]. Surveys were conducted under the authority of Federal Fish and Wildlife Permit No. TE-012973-2 in compliance with the April 19, 1996 *Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods* (Guidelines). This document is the 90-Day Report of Findings for the Miwok Casino property (as required by Item VII of the *Guidelines*), which summarizes the results of wet season determinate survey work for this property. Mr. Ken Fuller of the USFWS gave ECORP verbal authorization to conduct the survey on 16 November 2004.

The 228-acre subject property is located south of the town of Plymouth in Amador County, California. The site is situated east of State Highway 49 at an elevation of 900 to 1,140 feet above mean sea level. The property corresponds to portions of sections 11, 14 and 15 in Township 7 North, Range 10 East, on the Amador City, California 7.5-minute USGS quadrangle. (Figure 1 – *Project Site and Vicinity Map*). Vegetation communities on-site include annual grassland, mixed chaparral, and blue oak woodland. Naturally-occurring ephemeral wetlands. (i.e., vernal pools, seasonal wetlands, and wetland swales) are scattered throughout portions of the annual grassland community. Approximately 1.82 acres of the naturally-occurring ephemeral wetlands on the subject property represent potential branchiopod habitat.

METHODS

Survey methodology followed “wet season sampling” protocols outlined in the April 19, 1996 *Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods* (Guidelines). The property was visited on 10, & 22 December 2004, 04, 17 & 31 January 2005, 14 & 28 February 2005, 14 & 28 March 2005, 12 & 25 April 2005. All inundated wetlands were visually inspected and dip-

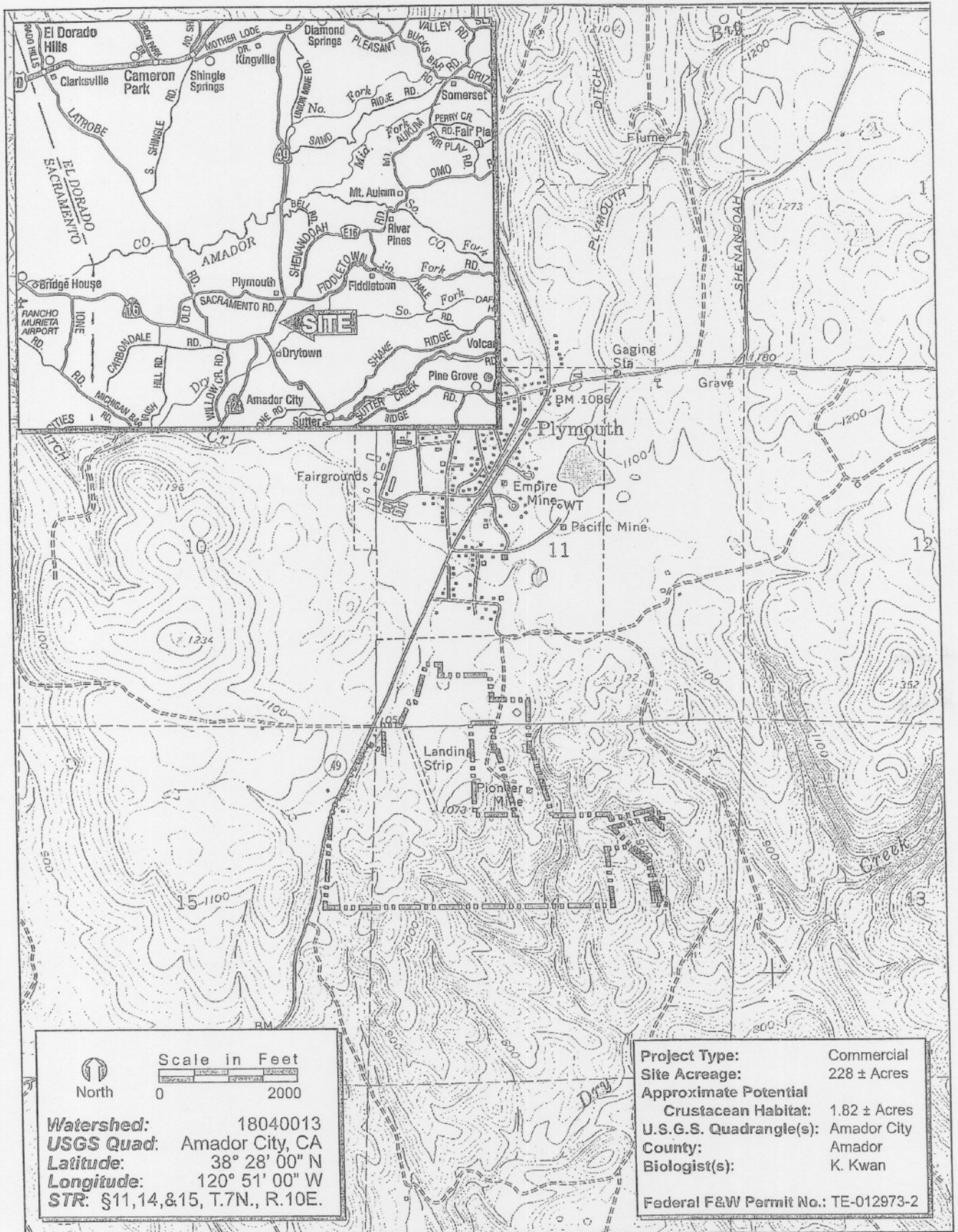


FIGURE 1. Project Site and Vicinity Map

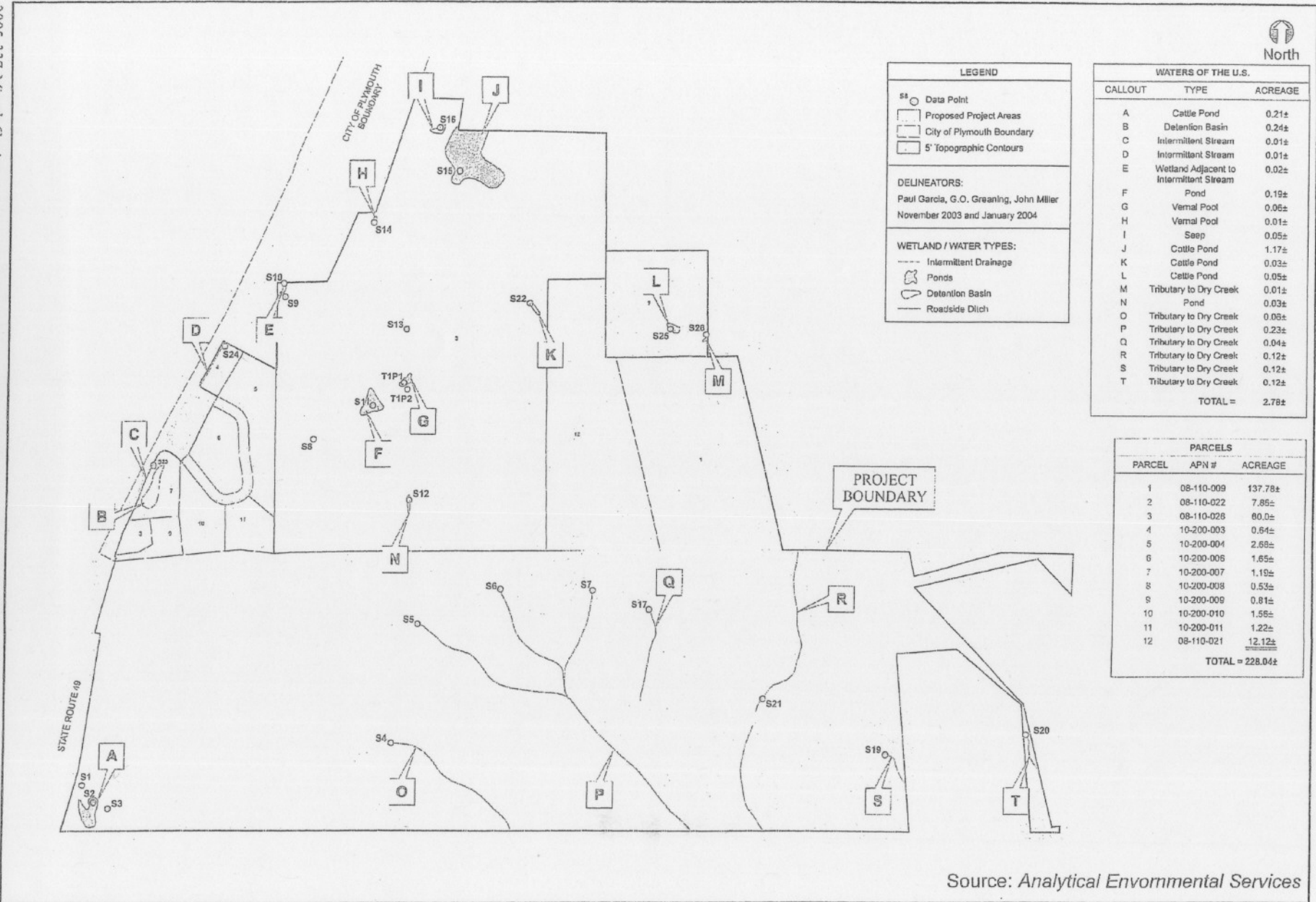
netted during each site visit. (Figure 2 - *Vernal Pool and Seasonal Wetland Sampling Locations*). Required data were collected and documented on U.S. Fish and Wildlife Service-approved Vernal Pool Data Sheet Wet Season Survey data forms. Permitted biologists Keith Kwan and Peter Balfour conducted the field surveys.

RESULTS

During the 2004-2005 sampling season, all seasonal wetland features on the property were surveyed on eleven separate occasions. No listed branchiopods were observed on the project site on any of the survey dates. Completed U.S. Fish and Wildlife Service-approved Vernal Pool Data Sheet Wet Season Survey summary sheets are provided in Attachment A. The sheets summarize all required data (i.e., wetland depth of inundation, surface area, water temperature, listed branchiopod species occurrence, and approximate number of individuals per species). Additional data include other observed invertebrates identified to lowest possible taxon (during field surveys), and vertebrate species observed in the wetland features. Representative site photographs are provided in Attachment B.

SUMMARY

All seasonal wetland features (including vernal pools) on the Miwok Casino property were investigated to determine the presence of listed aquatic crustacean (branchiopod) species. Wet season field surveys were conducted between 10 December 2004 and 25 April 2005. No listed branchiopods were observed on the project site.



Source: Analytical Environmental Services

FIGURE 2. Vernal Pool and Seasonal Wetland Sampling Locations

LIST OF ATTACHMENTS

Attachment A – USFWS Vernal Pool Data Sheets

Attachment B – Representative Site Photographs 12/22/04

ATTACHMENT A

USFWS Vernal Pool Data Sheets

U.S. Fish and Wildlife Vernal Pool Data Sheet - Wet Season Survey

Site/Project Name:	Miwok Casino 2004-337	County/Quad: Amador / Amador City				
Permitted Biologist:	Keith Kwan	Permit Number: TE-012973-2				
Sample Date: 12/10/2004	Township 7 North, Range 10 East, Section 11, 14, 15				End Time: 11:15	
Start Time: 9:30	Latitude: 38 27' 40" N Longitude: 120 50' 40" W				End Air Temp (C): 12	
Start Air Temp (C): 11						
Pool Number	Pool Depth (cm)	Surface Area (sq. m)	Max. Surface Area (sq. m)	Water Temp. (C)	Listed Branchiopods	Comments / Other Invertebrates / Vertebrates
N1	10	3		10	None	
N2	13	9		10	None	
F	40	240		11	None	
G	16	70		11	None	
H	27	42		11	None	
J	50+	1020		11	None	bullfrogs (ad+larvae), mosquitofish
I	Dry					
K	50+	96		12	None	Planariidae
E	8	1		13	None	
U	7	2		13	None	
V	12	2		13	None	
A						not fairy shrimp habitat

Site/Project Name:	Miwok Casino 2004-337	County/Quad: Amador / Amador City				
Permitted Biologist:	Keith Kwan, Pete Balfour	Permit Number: TE-012973-2				
Sample Date: 12/22/2004	Township 7 North, Range 10 East, Section 11, 14, 15				End Time: 12:00	
Start Time: 10:00	Latitude: 38 27' 40" N Longitude: 120 50' 40" W				End Air Temp (C): 9	
Start Air Temp (C): 6						
Pool Number	Pool Depth (cm)	Surface Area (sq. m)	Max. Surface Area (sq. m)	Water Temp. (C)	Listed Branchiopods	Comments / Other Invertebrates / Vertebrates
N1	0					
N2	0					
F	33	120		6	None	photo 1; cladocera, notonectid, dytiscid, hydracarina
G	0					
H	10	9		7	None	photo 2
J	55	1050		7	None	photo 3, 4; bullfrogs (larval), mosquitofish, damselfly larvae, snails
I	0					
K	50	125		7	None	photo 5; ostracod, dytiscid larvae, ephencroptera, possible imm. Anostraca
E	Dry					
U	Dry					
V	Dry					
A	80+	280		8	None	photo 6; amphipods, bullfrog larvae; not fairy shrimp habitat

Site/Project Name:	Miwok Casino 2004-337	County/Quad: Amador / Amador City				
Permitted Biologist:	Keith Kwan	Permit Number: TE-012973-2				
Sample Date: 1/04/2005	Township 7 North, Range 10 East, Section 11, 14, 15				End Time: 12:30	
Start Time: 11:00	Latitude: 38 27' 40" N Longitude: 120 50' 40" W				End Air Temp (C): 8	
Start Air Temp (C): 6						
Pool Number	Pool Depth (cm)	Surface Area (sq. m)	Max. Surface Area (sq. m)	Water Temp. (C)	Listed Branchiopods	Comments / Other Invertebrates / Vertebrates
N1	8	8	8	9	None	
N2	23	68	68	9	None	
F	50+	1350	1350	8	None	
G	32	221	221	9	None	
V	17	6	6	9	None	
E	Dry					
U	8	24	24	9	None	
H	31	55	55	8	None	
J	50+	7500	7500	8	None	
I	6	8	8	9	None	
K	50+	480	480	8	None	
A	100+	368	368	8	None	high turbidity

U.S. Fish and Wildlife Vernal Pool Data Sheet - Wet Season Survey

Site/Project Name:	Miwok Casino 2004-337	County/Quad: Amador / Amador City				
Permitted Biologist:	Keith Kwan	Permit Number: TE-012973-2				
Sample Date: 1/17/2005 Start Time: 10:00 Start Air Temp (C): 6	Township 7 North, Range 10 East, Section 11, 14, 15 Latitude: 38 27' 40" N Longitude: 120 50' 40" W					End Time: 12:00 End Air Temp (C): 7
Pool Number	Pool Depth (cm)	Surface Area (sq. m)	Max. Surface Area (sq. m)	Water Temp. (C)	Listed Branchiopods	Comments / Other Invertebrates / Vertebrates
N1	17	8	8	5	None	
N2	25	36	68	5	None	
F	50+	1350	1350	4	None	
G	29	221	221	4	None	
V	5	6	6	5	None	
E	0					
U	14	24	24	5	None	
H	34	55	55	4	None	
J	50+	7500	7500	4	None	
I	7	4	8	5	None	
K	50+	480	480	4	None	
A	100+	368	368	4	None	

Site/Project Name:	Miwok Casino 2004-337	County/Quad: Amador / Amador City				
Permitted Biologist:	Keith Kwan	Permit Number: TE-012973-2				
Sample Date: 1/31/2005 Start Time: 10:00 Start Air Temp (C): 10	Township 7 North, Range 10 East, Section 11, 14, 15 Latitude: 38 27' 40" N Longitude: 120 50' 40" W					End Time: 12:00 End Air Temp (C): 13
Pool Number	Pool Depth (cm)	Surface Area (sq. m)	Max. Surface Area (sq. m)	Water Temp. (C)	Listed Branchiopods	Comments / Other Invertebrates / Vertebrates
N1	21	3	8	8	None	
N2	22	30	68	8	None	
F	45	700	1350	8	None	
G	28	120	221	8	None	
V	0		6		None	
E	0					
U	8	8	24	8	None	
H	27	35	55	8	None	
J	50+	7500	7500	8	None	
I	9	6	8	8	None	
K	50+	480	480	8	None	
A	50+	368	368	8	None	

Site/Project Name:	Miwok Casino 2004-337	County/Quad: Amador / Amador City				
Permitted Biologist:	Keith Kwan	Permit Number: TE-012973-2				
Sample Date: 2/14/2005 Start Time: 9:30 Start Air Temp (C): 14	Township 7 North, Range 10 East, Section 11, 14, 15 Latitude: 38 27' 40" N Longitude: 120 50' 40" W					End Time: 12:00 End Air Temp (C): 16
Pool Number	Pool Depth (cm)	Surface Area (sq. m)	Max. Surface Area (sq. m)	Water Temp. (C)	Listed Branchiopods	Comments / Other Invertebrates / Vertebrates
N1	16	2	8	9	None	
N2	21	68	68	9	None	
F	50+	1350	1350	8	None	
G	32	221	221	9	None	
V	0		6		None	
E	0					
U	10	6	24	9	None	
H	34	24	55	8	None	
J	50+	4200	7500	8	None	
I	0		8		None	
K	50+	120	480	8	None	
A	50+	368	368	8	None	

U.S. Fish and Wildlife Vernal Pool Data Sheet - Wet Season Survey

Site/Project Name:	Miwok Casino 2004-337		County/Quad: Amador / Amador City			
Permitted Biologist:	Keith Kwan		Permit Number: TE-012973-2			
Sample Date: 2/28/2005	Township 7 North, Range 10 East, Section 11, 14, 15					End Time: 11:30
Start Time: 9:45	Latitude: 38 27' 40" N Longitude: 120 50' 40" W					End Air Temp (C): 16
Start Air Temp (C): 14						
Pool Number	Pool Depth (cm)	Surface Area (sq. m)	Max. Surface Area (sq. m)	Water Temp. (C)	Listed Branchiopods	Comments / Other Invertebrates / Vertebrates
N1	9	6	8	9	None	
N2	19	24	68	9	None	
F	50+	1350	1350	9	None	
G	26	63	221	9	None	
V	6	8	6	10	None	
E	Dry					
U	10	6	24	10	None	
H	24	32	55	10	None	
J	50+	4200	7500	9	None	
I	Dry		8		None	
K	50+	240	480	9	None	
A	50+	368	368	9	None	

Site/Project Name:	Miwok Casino 2004-337		County/Quad: Amador / Amador City			
Permitted Biologist:	Keith Kwan		Permit Number: TE-012973-2			
Sample Date: 3/14/2005	Township 7 North, Range 10 East, Section 11, 14, 15					End Time: 11:00
Start Time: 9:30	Latitude: 38 27' 40" N Longitude: 120 50' 40" W					End Air Temp (C): 21
Start Air Temp (C): 18						
Pool Number	Pool Depth (cm)	Surface Area (sq. m)	Max. Surface Area (sq. m)	Water Temp. (C)	Listed Branchiopods	Comments / Other Invertebrates / Vertebrates
N1	4	1.2	8	13	None	
N2	10	12	68	12	None	
F	50+	1350	1350	11	None	
G	18	35	221	12	None	
V	Dry		6			
E	Dry					
U	Dry		24			
H	17	24	55	12	None	
J	50+	3500	7500	11	None	
I	Dry		8			
K	50+	240	480	11	None	
A	50+	300	368	11	None	

Site/Project Name:	Miwok Casino 2004-337		County/Quad: Amador / Amador City			
Permitted Biologist:	Keith Kwan		Permit Number: TE-012973-2			
Sample Date: 3/28/2005	Township 7 North, Range 10 East, Section 11, 14, 15					End Time: 11:00
Start Time: 9:00	Latitude: 38 27' 40" N Longitude: 120 50' 40" W					End Air Temp (C): 15
Start Air Temp (C): 12						
Pool Number	Pool Depth (cm)	Surface Area (sq. m)	Max. Surface Area (sq. m)	Water Temp. (C)	Listed Branchiopods	Comments / Other Invertebrates / Vertebrates
N1	23	2	8	10	None	
N2	25	21	68	10	None	
F	50+	1350	1350	10	None	
G	29	30	221	10	None	
V	10	6	6	10	None	
E	Dry					
U	12	15	24	10	None	
H	41	28	55	11	None	
J	50+	7500	7500	10	None	
I	5	2	8	11	None	
K	50+	480	480	10	None	
A	100+	368	368	10	None	

ATTACHMENT B

Representative Site Photographs Taken 22 December 2004

U.S. Fish and Wildlife Vernal Pool Data Sheet - Wet Season Survey

Site/Project Name:		Miwok Casino 2004-337			County/Quad: Amador / Amador City	
Permitted Biologist:		Keith Kwan			Permit Number: TE-012973-2	
Sample Date: 4/12/2005		Township 7 North, Range 10 East, Section 11, 14, 15				End Time: 11:30
Start Time: 10:00		Latitude: 38 27' 40" N Longitude: 120 50' 40" W				End Air Temp (C): 14
Start Air Temp (C): 12						
Pool Number	Pool Depth (cm)	Surface Area (sq. m)	Max. Surface Area (sq. m)	Water Temp. (C)	Listed Branchiopods	Comments / Other Invertebrates / Vertebrates
N1	14	0.5	8	12	None	
N2	19	8	68	12	None	
F	50+	1350	1350	12	None	
G	18	16	221	12	None	
V	3	1	6	12	None	
E	Dry					
U	5	2	24	12	None	
H	35	20	55	12	None	
J	50+	7500	7500	12	None	
I	Dry		8			
K	50+	480	480	12	None	
A	100+	368	368	12	None	

Site/Project Name:		Miwok Casino 2004-337			County/Quad: Amador / Amador City	
Permitted Biologist:		Keith Kwan			Permit Number: TE-012973-2	
Sample Date: 4/25/2005		Township 7 North, Range 10 East, Section 11, 14, 15				End Time: 11:00
Start Time: 10:00		Latitude: 38 27' 40" N Longitude: 120 50' 40" W				End Air Temp (C): 18
Start Air Temp (C): 15						
Pool Number	Pool Depth (cm)	Surface Area (sq. m)	Max. Surface Area (sq. m)	Water Temp. (C)	Listed Branchiopods	Comments / Other Invertebrates / Vertebrates
N1	Dry		8			
N2	Dry		68			
F	50+	100	1350	13	None	
G	26	30	221	12	None	
V	Dry		6			
E	Dry					
U	Dry		24			
H	Dry		55			
J	50+	2000	7500	12	None	
I	Dry		8			
K	50+	240	480	12	None	
A	50+	150	368	12	None	

