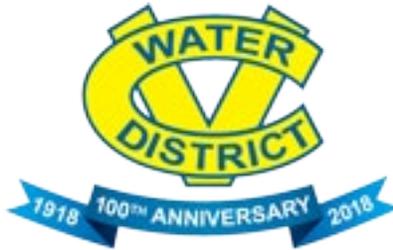


**APPENDIX C: AVENUE 66 TRUNK SEWER PROJECT BIOLOGICAL
SURVEY REPORT**

Avenue 66 Trunk Sewer Project

BIOLOGICAL SURVEY REPORT



Coachella Valley Water District
75515 Hovley Lane East
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Contact: Brett Daniels, M.S., Associate Biologist

PROJECT DESCRIPTION

The Avenue 66 Trunk Sewer Project (proposed sewer pipeline project) is designed to provide sewer facilities to the Oasis Community within unincorporated Riverside County. The Oasis Community is located along Avenue 66th, Harrison Street, Echols Road, and Martinez Road. Existing development consists of multi-family residential (Polanco Parks), single family residential, commercial, Torres Martinez Tribal Center, Sunbird Mobile Home Park, Oasis Villas Community, and Oasis Gardens Mobile Home Park. As proposed, the project involves the installation of a gravity sewer pipeline extension, force-main, a new lift station, and capacity upgrades to Lift Station 55-21. The sewer pipeline will head east along Avenue 66, from Harrison Street to Polk Street. At the intersection of Polk Street and Avenue 66, the proposed sewer pipeline will connect with the existing Polk Street Trunk Sewer Pipeline, which conveys the sewer flow to Lift Station 55-21 then eventually to Water Reclamation Plant 4 via an existing 18-inch force main. Approximately 16,500 linear feet of gravity pipelines will be installed for the off-site sewer system to provide sewer service to the Oasis Community, and adjacent existing and future developments. In addition, approximately 2,500 linear feet pipelines will be installed for the off-site sewer system to provide sewer service to the Torres Martinez Tribal Center and nearby residences. Equipment and construction materials will be staged at the proposed lift station site immediately adjacent to the Sunbird Mobile Home Community (refer to **Exhibit A**).

The survey area for this biological report is focused on the proposed 2,500 linear foot alignment along Martinez Road (south of Avenue 66). The purpose of this biological evaluation was to characterize biological resources present at the site (e.g., vegetation communities, waterways, and wildlife habitats) and to assess the potential for the site to support special-status resources (e.g., wetlands or waterways under SEC404, and listed or candidate species under SEC 1600-1603 CDFG code). The following report presents the methods and results of the survey, including a detailed description of the site, a description of plant communities and wildlife observed, and an evaluation of special-status plants, animals and water resources and their potential to occur on the project site.

METHODS

The biological evaluation included a literature review and a habitat-level survey of the project site. Literature was reviewed to identify any special-status resources reported as occurring in the project vicinity and to gather additional information on the natural history and ecology of these species (e.g., habitat requirements). Literature sources cited include:

- California Department of Fish and Game's (CDFG), California Natural Diversity Database (CNDDDB) Special Animals List CDFG/CNDDDB, 2018
- Coachella Valley Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan (CVMSHCP/NCCP) 2008
- California Native Plant Society 2018

Prior to conducting the field survey, the California Natural-Diversity-Data-Base (CNDDDB), the California Department of Fish and Game's Special-Status species lists and CVMSHCP/NCCP were queried to identify sensitive plant and animal species that have been reported from the region.

Table 1 provides special status plant and animal resources that are state and/or federally listed

under the CVMSHCP/NCCP. **Table 2** lists vegetation observed on the project site or in the surveyed buffer area. **Table 3** lists wildlife observed on the project site or within the surveyed buffer area.

Coachella Valley Water District's biologist conducted a habitat-survey on the project site on August 23, 2018, to ascertain what resources, if any, were present onsite. These surveys were timed to coincide with cooler periods of the day (early morning) to maximize observations of any wildlife. The surveys' consisted of a site walkover to identify potential waterways, plant communities, dominant plant species, and wildlife present on the project site. In addition, habitat that could support special status resources including plants and animals was characterized. For purposes of this analysis, special status resources are plant communities, plants, waters/wetlands, and wildlife that are:

- Identified by state and/or federal agencies as rare, threatened, or endangered or designated as candidates for listing under provisions of the federal or state Endangered Species Acts
- Considered sensitive by recognized monitoring agencies and conservation organizations (Department of Fish and Game (DFG), California Native Plant Society (CNPS), United States Fish and Wildlife Service (FWS) or the National Audubon Society
- Wetlands or other waters under the Clean Water Act and California Fish and Game Code, SEC 404, administered by the U.S. Army Corps of Engineers (Corps) and DFG, respectively.

Vegetation communities on the project site were identified based on the field survey and review of the dominant communities associated with the region where the project site is located. Vegetation communities occurring on the project site are described below and listed on **Table 2**. Wildlife species occurring or having the potential to occur on the project site were identified during the site surveys through direct observation, indirect evidence (e.g. scat, tracks, nests, and burrows), and assessment of habitat suitability. Observed wildlife species are provided in **Table 3**. Habitat suitability was assessed on pre-survey literature review to identify habitat requirements of special-status species potentially occurring in the project vicinity, as well as to evaluate characteristics of plant communities/wildlife habitat observed on or adjacent to the project site.

RESULTS

The following sections present a brief description of the plant species, vegetation communities, and wildlife species observed on the project site as well as a discussion of the special-status resources potentially occurring on-site.

Topography and Property Description

The project involves the construction and placement of a sewer line extension from Avenue 66 to the Torres Martinez Tribal Headquarters located approximately 2,500 linear feet south of Avenue 66 on Martinez Road, Mecca CA. The project alignment right-of-way is adjacent to the east side of Martinez Road. The sewer line will then turn off of Martinez Road to the entry driveway for the Torres Martinez Headquarters building. The area is surrounded by tribal housing and agricultural lands with small patches of disturbed desert interspersed along the west side of the roadway (**Figures 1-3**).

Vegetation Communities and Plant Species

Vegetation communities observed during the site survey are presented in **Table 2** and discussed briefly below.

Dominant vegetation identified on the project site is composed of ruderal (disturbance adapted) plant species with some native vegetation adjacent to the project site. There were scattered assemblages of broad-leaved evergreen and deciduous microphyll shrubs between 0.5 and 2 m (1.5 – 6.5 feet) in height located on the east and west side of Martinez Road just outside of the County right-of-way.

Wildlife

Wildlife observed during the site survey is presented in **Table 3** and discussed briefly below in relation to the vegetation communities identified onsite.

Disturbed Agricultural Lands

Wildlife typically found in this setting include, but are not limited to, Coyote (*Canis latrans*), Mourning dove (*Zenaida macroura*), and Greater Roadrunner (*Geococcyx californianus*). Bird species observed onsite include White Crowned Sparrow (*Zonotrichia leucophrys*), Mourning Dove (*Zenaida macroura*), and a Common Ground-Dove (*Columbina passerina*). A 100-foot buffer was also surveyed around the proposed project site when/where right of way and open space permitted.

Streambed/Waterways

During the course of the field investigation, no jurisdictional waterways or resources were observed onsite; in addition, this area is devoid of any riparian or intermittent streambeds with established bed and bank. The entire project site has been subject to extensive disturbance and grading activities associated with the construction of tribal housing on both the east and west sides of the proposed pipe alignment as well as heavy agricultural use. No special status species, or supportive habitat, was observed onsite during the course of the survey.

Special Status Species Occurrence

The biological survey included an analysis of the special status species and habitats found in the region and their potential to occur on the project site. The following section describes the results of this analysis and observations of conditions in the field.

Plant Species

The CNDDDB query revealed no listed or threatened species within a 1-mile radius of the project site but did list three plant species as occurring in the region, Jackass-Clover (*Wislizenia refracta ssp. refracta*), Chaparral Sand-Verbena (*Abronia villosa var. aurita*), and Mecca Aster (*Xylorhiza cognata*). Chaparral sand-verbena has been recorded approximately 4 air miles south of I-10 freeway in the Meccas Hills on the east side of the Coachella Canal which is 8 miles east of the project site. Chaparral Sand-Verbena is typically associated with chaparral, coastal scrub, and desert dunes and open desert scrub on alluvial soils. No potential habitat for this species was observed onsite and thus it is not expected on or near the project site. Jackass-Clover is associated with Playas, Desert Dunes and Mojavean/Sonoran Desert Scrub. Micro habitats include sandy washes, roadsides, and alkaline flats. The most recent record for Jackass Clover is from 1936, 10

miles east of Indio along the I-10 just north of the Mecca Hills which is over 10 miles away from the project site. Mecca Aster is associated with Sonoran Desert Scrub and more specifically with steep canyon slopes in areas of sandstone and clay. No supportive habitat for either plant species was observed onsite during the pedestrian surveys. In addition no special status plant species associated with the CVMSHCP were observed during the survey within the project bounds or immediately adjacent to the site.

Wildlife

The CNDDDB query revealed one federally listed species within the region, Desert tortoise (*Gopherus agassizii*). Desert tortoise are associated with desert scrub, desert washes, and Joshua tree habitats but can occur in almost every desert habitat. Desert tortoise require microhabitats with friable soil for burrow and nest construction and are dependent upon annual wildflowers which are also found in creosote bush habitat. Nearest recorded occurrences for this species include Chuckwalla Valley, Milpitas Wash, approximately 2.5 miles north of Thermal Canyon and 5 miles east of Coachella from 500 to 2000 feet elevation within various vegetation communities. No supportive habitat is present within the project footprint or surrounding area within one mile. No other federal or state listed threatened or endangered species are recorded on or within a 1-mile radius of the project site. No special status species were observed during the survey within the project bounds or immediately adjacent to the site. In addition, the site offers very limited habitat, forage, or refugium for wildlife species as the area is highly developed and surrounded by tribal housing and agricultural farms and ranches; although no special-status wildlife species were observed during the survey, migratory bird species could potentially move through the site. Their occurrence would be transient in nature and would not be affected by activities onsite as there is no supportive habitat for nesting or roosting; i.e. trees, shrubs, or structures within the immediate project right-of-way.

SUMMARY

Based on the field survey of the project site on August 23, 2018 proposed project activities are not anticipated to result in impacts to special-status plant or animal species. In addition, no impacts to special-status resources or sensitive habitat are anticipated. Avoidance and minimization measures to protect wildlife species will include preconstruction surveys for nesting birds, burrowing owls, and environmental training.

ATTACHMENTS

Exhibit A. Regional map showing project limits, staging area at lift station and pipe alignment

Figures 1-3 Onsite photographs

Table 1 CVMSHCP/NCCP listed wildlife and vegetation

Tables 2-3 Observed wildlife and vegetation

Resume Brett Daniels, M.S., CVWD Biologist

Exhibit A. Area map showing proposed lift station and staging area, sewer line alignment and meter connections.

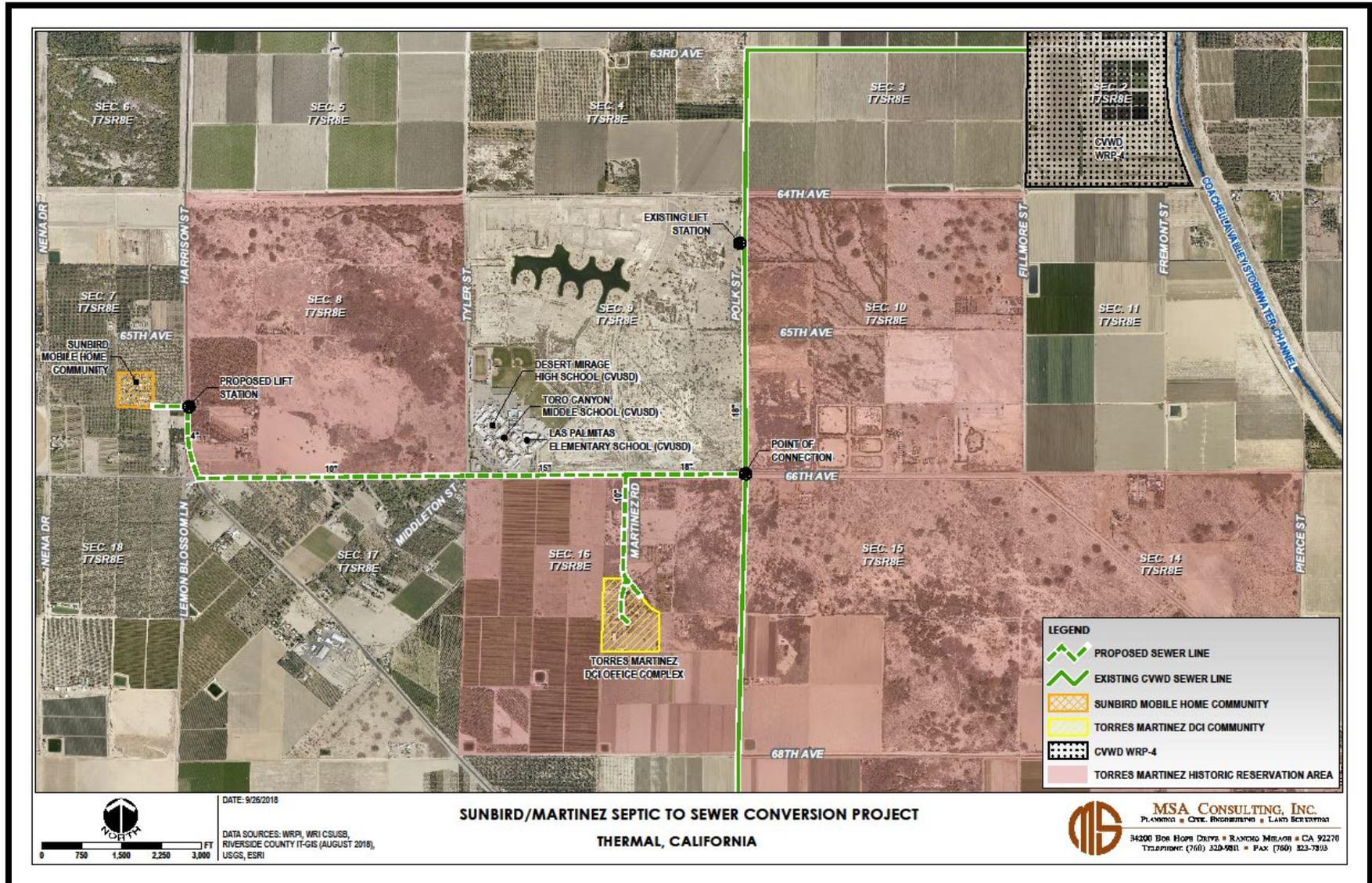


Figure 1. Looking south down east side of Martinez Road to Torres Martinez Tribal Headquarters



Figure 2. Looking south down Martinez Road down proposed pipe alignment



Figure 3. Looking north along east side Martinez Road from Torres Martinez Tribal Headquarters



Table 1. Special Status Species Covered under the Coachella Valley MSHCP

Amphibians	Genus species	Status	Potential To Occur On Project Site
Arroyo toad	<i>Bufo californicus</i>	FE/CSC	No
Reptiles			
Desert tortoise	<i>Gopherus agassizii</i>	FT/ST	No
Flat-tailed horned lizard	<i>Phrynosoma mcallii</i>	CSC	No
Coachella Valley fringe-toed lizard	<i>Uma inornata</i>	FT/SE	No
Fish			
Desert pupfish,	<i>Cyprinodon macularius</i>	FE/SE	No
Invertebrates - Insects			
Coachella Valley giant sand-treader cricket,	<i>Macrobaenetes valgum</i>	NA	No
Coachella Valley Jerusalem cricket	<i>Stenopelmatus cahuilensis</i>	NA	No
Birds			
Yuma clapper rail	<i>Rallus longirostris yumanensis</i>	FE/ST/SFP	No
California black rail	<i>Laterallus jamaicensis</i>	ST/SFP	No
Burrowing owl	<i>Athene cunicularia</i>	CSC	No
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	SE/FE	Transient
Crissal thrasher	<i>Toxostoma crissale</i>	CSC	Transient
Le Conte's thrasher	<i>Toxostoma lecontei</i>	CSC	Transient
Least Bell's vireo	<i>Vireo bellii pusillus</i>	FE/SE	Transient
Gray vireo	<i>Vireo vicinior</i>	CSC	Transient
Yellow warbler	<i>Dendroica petechia brewsteri</i>	CSC	Transient
Yellow-breasted chat	<i>Icteria virens</i>	CSC	Transient
Summer tanager	<i>Piranga rubra</i>	NA	Transient
Mammals			
Southern yellow bat	<i>Lasiurus ega or xanthinus</i>	NA	No
Coachella Valley round-tailed ground squirrel	<i>Spermophilus tereticaudus chlorus</i>	C/CSC	No
Palm Springs pocket mouse	<i>Perognathus longimembris bangsi</i>	C/CSC	No
Peninsular bighorn sheep	<i>Ovis canadensis nelsoni</i>	FE/ST/SFP	No
Plants			

Mecca aster,	<i>Xylorhiza cognata</i>	NA	No
Coachella Valley milkvetch	<i>Astragalus lentiginosus</i> <i>var. coachellae</i>	FE	No
Triple-ribbed milkvetch	<i>Astragalus tricarinatus</i>	FE	No
Orocopia sage	<i>Salvia greataei</i>	NA	No
Chaparral sand-verbena	<i>Abronia villosa</i> <i>var.</i> <i>aurita</i>	NA	No
Jackass-clover	<i>Wislizenia refracta</i> <i>ssp.refracta</i>	NA	No
(Footnotes are explained below.) The status codes used in the table are identified in the following key, as listed in the <i>California Natural Diversity Data Base Special Animals List and Special Plants List</i> from July 2000 (CNDDB 2000).			
Key: FE = Federal Endangered FT = Federal Threatened FC = Federal Candidate SE = State Endangered ST = State Threatened SC = State Candidate SFP = State Fully Protected CSC = Species of Special Concern (a state list of species that are at risk due to habitat modification or destruction, over-collecting, disease, or other threats) CNPS = Rare in California NA = Not Applicable			

Table 2. Observed Vegetation

Family	<i>Genus species</i>	Common Name	Occurrence
Poaceae (Gramineae)	<i>Phragmites communis</i>	Common reed	Present in agricultural drainage channel on Ave 66
Tamaricaceae	<i>Tamarix ssp.</i>	Tamarisk	Present
Brassicaceae	<i>Brassica tournefortii</i>	Sahara Mustard	Absent
Asteraceae	<i>Baccharis pilularis</i>	Coyote Brush	Present
	<i>Pluchea sericea</i>	Arrow weed	Present
Salicaceae	<i>Salix lasiolepis</i>	Arroyo willow	Absent
	<i>Populus fremontii</i>	Cottonwood	Present as landscape tree
Areaceae	<i>Washingtonia filifera</i>	Fan Palm	Present outside of right-of-way
Nyctaginaceae	<i>Bougainvillea glabra</i>	Bougainvillea	Present as landscape vegetation

Table 3. Observed Wildlife

INSECTS		
Diptera	<i>Culicidae</i>	midges, mosquitos
BIRDS		
Columbidae	<i>Zenaida macroura</i>	Mourning dove
Corvidae	<i>Corvus corax</i>	Raven
Emberizidae	<i>Zonotrichia leucophrys</i>	White-Crowned sparrow
Fringillidae	<i>Carpodacus mexicanus</i>	House Finch
Sturnidae	<i>Sturnus vulgaris</i>	European Starling
Tyrannidae	<i>Tyrannus verticalis</i>	Western Kingbird

Brett Daniels, M.S., Associate Biologist
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Education

Green Mountain College (UC Riverside Extension Program)

M.S. Conservation Biology UC Riverside Palm Desert/Poultney, Vermont 2015

UC Davis

Post Graduate biology work for Arbovirus Research Coachella Valley, California 2002

CEQA/NEPA and California Law through extension Sacramento, California 2000

Sonoma State University

B.A. Environmental Sciences Rohnert Park, California 1997

College of Marin

A.A. Landscape Architecture Kentfield, California 1995

Registration/Training/Certification

Registered Biologist with Riverside County California Environmental Planning Department.

USFWS Permitted Desert Pupfish Biologist Recovery Permit # TE24256B-0

CDFW Scientific Collecting Permit: SCP 4533 # D-011850150-1

CDFW, ICC, AZGF Permitted Flat-tailed horned lizard Biologist

Invasive species inspection, eradication, control and monitoring program development CDFW

Desert Tortoise Conservation Program survey training Certificate # 1E00W730

Florida Venomous Reptile License #824

40hr. Hazardous Material and Emergency Response Training

Proficient in the use of GPS and electronic distance measuring equipment

ESRI GIS/Campus workshops

FAA Registered UAV pilot

First Responder & CPR trained

PADI Certified Open Water Diver

Kukkiwon Certified 2nd Dan Black Belt in Taekwondo

Extensive experience in the field with accomplished scientific researchers and biologists such as Bryan G. Fry and Cameron Barrows

Proficient in the use and operation of 4x4 vehicles, ATV/OHV transport and Unmanned Aerial Vehicle (UAV) operation

Expert waterman comfortable operating motor vessels and sailboats (up to 75') - experience with Airboats

Experience

Associate Biologist - Coachella Valley Water District

Palm Desert, California 2010 – Present

I currently serve as the water district's Associate Biologist within their environmental services group. My duties include but are not limited to development and management of studies involving federal and state endangered species, biological assessments and habitat surveys, and research. I manage aquatic invasive species programs, species-specific surveys and project budgets associated with strategic goals. I provide daily biological resource support of the numerous operational maintenance projects and biological commitments performed on district owned lands within conservation areas. I also serve as a professional member on several regional biological work groups and steering committees responsible for the implementation and management of the Coachella Valley Multiple Species Habitat Conservation Plan.

Environmental Programs Director - City of Coachella

Coachella, California 2006 – 2010

In my role as the Environmental Programs Director for the City of Coachella, my primary duties involved the implementation, management, and integration of newly adopted environmental regulatory programs including an Industrial Pretreatment Program and National Pollution Discharge Elimination System (IPP/NPDES). In addition to program development and implementation, I achieved major compliance goals with state and federal agencies within a 24-month period. Additional responsibilities included supervision of administrative office staff, biological evaluations, review of environmental issues associated with planning and development projects, and City representation with business owners, citizens, contractors, and agency personal. I also served as Project Manager on underground storage cleanup projects,

managed the state funding, and subcontracted cleanup work. I was successful in securing over \$1M in grant funding from the Imperial Irrigation District for a 400KV photovoltaic solar system on lands belonging to the City's wastewater reclamation plant. I gained a great deal of experience working with large public utilities such as IID and enabled the city to become the first municipality with a WRP operated off solar power in southern California.

Palm Springs Biological Services

Palm Springs, California 2000 - Present

I currently serve as the senior biologist for this small biological consulting and Specimen Company. Services include herpetological and general wildlife biological surveys, assistance with NEPA permitting, and endangered species consultation. Additional services include unmanned aerial photography and video editing, wildlife photography, and field herpetology.

Publications

Food from Small Places. Feature article on the design and construction of recirculating agricultural systems. *Aquaponics Journal of America Volume III. Dec/Jan 1997-98*

Bay Area Back roads. Appearance as a guest biologist for a venomous reptile segment aired on a local CBS affiliate. In addition to providing commentary on the local species, I also guided their camera team to a local rattlesnake den and provided ecology and life history narration.