

ENVIRONMENTAL ASSESSMENT

For The

**Issuance of an Incidental Take Permit
Under Section 10(a)(1)(B) of the Endangered Species Act**

For The

**LAMONT PUBLIC UTILITY DISTRICT
SEWAGE EFFLUENT EXPANSION PROJECT**

**LAMONT
KERN COUNTY, CALIFORNIA**

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Lead Agency:

U.S. Department of Interior
Fish and Wildlife Service
Sacramento Fish and Wildlife Office
Pacific Region

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LIST OF ACRONYMS AND ABBREVIATIONS USED IN THIS DOCUMENT

CEQ	President's Council on Environmental Quality
CFR	Code of Federal Regulations
CRRR	Community Resource Recovery and Recycling Inc.
CSC	California Department of Fish and Game "Species of Special Concern"
District	Lamont Public Utility District
DM	Department of the Interior's Departmental Manual
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FONSI	Finding of No Significant Impact
HCP	Habitat Conservation Plan
ITP	Incidental Take Permit
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NRCS	Natural Resources Conservation Service
ROD	Record of Decision
RWQCB	Regional Water Quality Control Board
U.S.	United States
U.S.C.	United States Code
USDI	United States Department of the Interior
Service	United States Fish and Wildlife Service (USDI agency)

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1.0 PURPOSE AND NEED FOR ACTION

This environmental assessment (EA) has been prepared in compliance with the National Environmental Policy Act (NEPA) to describe the potential environmental effects of the U.S. Fish and Wildlife Service (Service) proposed action and alternatives of the issuance of an Incidental Take Permit (ITP), pursuant to Section 10(a)(1)(B) of the Endangered Species Act of 1973, as amended (ESA). The Lamont Public Utility District (District, or Applicant) seeks an ITP from the Service to authorize the incidental take of the Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), San Joaquin kit fox (*Vulpes macrotis mutica*), and the western burrowing owl (*Athene cunicularia*) (collectively termed “covered species”) in connection with the District’s effluent disposal expansion project.

Section 9 of the ESA prohibits the “take” of any federally listed species of wildlife unless authorized under provisions of Section 7, Section 10(a), or Section 4(d) of the ESA. Section 3 of the ESA defines take as “to harass, harm, pursue, shoot, hunt, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct.” Section 10(a)(1)(B) defines “incidental take” as take that is “incidental to and not the purpose of, the carrying out of an otherwise lawful activity.” Federal regulations define the terms “harass” and “harm” as follows: Harass means “an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding or sheltering.” Harm means “an act which actually kills or injures wildlife” and “may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” A Section 10(a) permit (ITP) constitutes an exception to the taking prohibition of Section 9.

1.1 Purpose for Action

The Service’s purpose in this action is to respond to the District’s application for an ITP. If granted, the ITP would allow for incidental take of the covered species listed above during construction and operation of the District’s proposed project to increase their effluent disposal capability by expanding on to a 160-acre site south of Lamont in Kern County, California. This EA assesses the environmental impacts of issuing the ITP for the District’s project and habitat conservation plan (HCP) alternatives for mitigating the impacts of expansion of effluent disposal capacity on the covered species.

1.2 Need for Action

The Service’s need in this action is to provide protection and conservation for listed, proposed and unlisted species to the extent intended under ESA section 10(a)(1)(B). These species would incur habitat loss, a primary cause of endangerment of most terrestrial species in the southern San Joaquin Valley, if the applicant’s project is permitted and implemented.

1.3 Decisions to be Made

This subsection describes how the Service determines whether our need is met with respect to species protection and conservation.

Discussions between applicants and the Service during the development of the ITP and HCP proposal are conducted with the knowledge and understanding that specific criteria must ultimately be met before a permit issuance decision can be reached. The determination as to whether the ITP has met these criteria would be made after the HCP is developed and subsequently revised based on public input. This determination is documented in the Service's decision documents consisting of an ESA section 10 findings document, ESA Section 7 biological opinion, and NEPA decision document. These decision documents are produced at the end of the process.

1.3.1 ESA Section 10

The issuance criteria for an ITP are contained in Section 10(a)(2)(B) of the ESA and again in the Service's implementing regulations for the ESA (50 CFR 17.22(b)(2) and 17.32(b)(2)). The issuance criteria are: (1) the taking will be incidental; (2) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (3) the applicant will ensure that adequate funding for the conservation plan and procedures to deal with unforeseen circumstances will be provided; (4) the taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild; and, (5) such other measures the Service may require as necessary or appropriate for the purposes of the HCP.

As a condition of receiving an ITP, a landowner must prepare and submit to the Service for approval an HCP containing the mandatory elements of Section 10(a)(2)(A). An HCP must specify: (1) the impact that will likely result from the taking; (2) what steps the applicant will take to monitor, minimize and mitigate such impacts, the funding available to implement such steps, and the procedures to be used to deal with unforeseen circumstances; (3) what alternative actions to such taking the applicant considered, and the reasons why such alternatives are not proposed to be used; and (4) such other measures that the Director may require as being necessary or appropriate for the purposes of the plan.

The ESA section 10 assessment is documented in a Section 10 Findings Document, which will be produced at the end of the process.

1.3.2 ESA Section 7

Issuance of an ITP is also a Federal action subject to section 7 of the ESA. Section 7(a)(2) requires all Federal agencies, in consultation with the Service, to ensure that any action "authorized, funded, or carried out" by any such agency "is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification" of critical habitat. Because issuance of an ESA section 10 permit involves an authorization, it is subject to this provision. In this case, since the Service is the action agency, it would perform an internal consultation.

Although the provisions of ESA section 7 and section 10 are similar, section 7 and its regulations introduce several considerations into the HCP process that are not explicitly required by section 10 – specifically, indirect effects, effects on federally listed plants, and effects on critical habitat. The results of this “consultation” are documented in a Biological Opinion, which will be produced at the end of the process.

1.3.3 NEPA

Issuance of an ITP is a Federal action subject to NEPA compliance. The purpose of NEPA is to promote analysis and disclosure of the environmental issues surrounding a proposed federal action to reach a decision that reflects the NEPA mandate to strive for harmony between human activity and the natural world. Although section 10 and NEPA requirements overlap considerably, the scope of NEPA goes beyond that of the ESA by considering the impacts of a Federal action on non-wildlife resources such as water quality, air quality, and cultural resources. Depending on the scope and impact of the HCP, NEPA requirements can be satisfied by one of the three following documents or actions: (1) a categorical exclusion; (2) an environmental assessment (EA); or (3) an environmental impact statement (EIS).

An EIS is required when the project or activity that would occur under the HCP is a major Federal action significantly affecting the quality of the human environment, though an agency may produce an EIS at its discretion even in cases where significant effects are not likely to occur. An EIS culminates in a Record of Decision (ROD). An EA is prepared when it is unclear whether an EIS is needed or when the project does not require an EIS but is not eligible for a categorical exclusion. An EA culminates in either a decision to prepare an EIS or a Finding of No Significant Impact (FONSI). Activities that do not individually or cumulatively have a significant effect on the environment can be categorically excluded from NEPA.

Since this NEPA review is an EA, the findings will be documented in the form of a FONSI.

1.4 Context

The District is responsible for sewage treatment and handling of wastewater disposal for the unincorporated town of Lamont. Although Lamont is presently a small town of about 3900 families, it is experiencing steady growth. The effluent disposal expansion project of the District is being conducted, in cooperation with the Regional Water Quality Control Board (RWQCB) – Central Valley Region, because an increased human population has caused a need for increased effluent disposal capacity. The District’s proposed project is to increase their effluent disposal capability by expanding to a 160-acre site south of Lamont in Kern County, California. This site is adjacent to sites currently being used for composting facilities.

Sewage typically enters the treatment plant site through pipelines. It is screened to remove coarse materials and is then pumped into ponds where natural biological processes treat the material. The treated effluent may be re-circulated in additional treatment ponds or discharged to be sprayed or flooded onto agricultural fields for leaching and evaporation. Laws and regulations

strictly limit potential uses of sewage effluent. It cannot be used on any agricultural crop destined for human consumption, but is allowed to be used on livestock forage crops, like winter wheat, corn, and alfalfa. The District is presently providing treated effluent to a recycling and composting contractor which is irrigating fiber and fodder crops on land located south of the treatment plant. Existing operations have received several violations from the RWQCB because the District's waste treatment plant is currently exceeding its permitted flow of 2 million gallons per day and may not allow any future development until the expansion occurs. Regulations require a 30-year capacity for spreading grounds.

The District had initiated irrigation on the expansion site, but the site was subsequently found to support habitat for threatened and endangered species. Consequently, the need for an ITP was identified, and an HCP was developed by consultants for the District (M.H. Wolfe and Associates Environmental Consulting Inc.) at the request of the District, in coordination with the Service and CDFG.

1.5 Location and Scope of Analysis

The proposed project site is located in Kern County on approximately 160 acres in the southeast quarter of map Section 25 (T31S, R28E) of the Weedpatch Quadrangle (Mt. Diablo Base and Meridian). It is about 2.5 miles directly south of the town of Lamont, and half a mile south of Bear Mt. Boulevard (State Highway 223). The site is bordered on its eastern boundary by Wheeler Ridge Road (State Highway 184), and on its western side by land operated by the Community Recycling and Resource Recovery Inc. (CRRR), for composting. Dirt roads for farm access run adjacent to the northern and southern boundaries of the project site. The existing District sewage treatment ponds are located to the northwest of the proposed project spreading site in the same map section.

This EA evaluates the potential environmental impacts of the Service's proposed action and alternatives of the issuance of an ITP to authorize the incidental take of covered species in connection with the District's effluent disposal expansion project. This EA analyzes alternatives to the action of issuing a permit as well as a No Action alternative (applicant's project not permitted, no HCP).

1.6 Public Involvement

Public participation in the NEPA process for this proposal will be conducted pursuant to Service NEPA procedures including a Notice of Availability in the Federal Register, and 60-day comment period. All groups or individuals expressing interest during the public involvement period will be sent a copy of this EA for review and comment. All comments received will be evaluated and considered in the final EA and accompanying decision. Groups and individuals submitting comments during the public comment periods will receive a notice of the decision.

1.7 Authority and Compliance

Based on agency relationships, missions and legislative mandates, the Service is the lead agency and decision-maker for this EA, and is responsible for the assessment's purpose, scope, content, and decision. As a cooperating agency, the CDFG provided input to this EA.

1.7.1 Compliance with Federal Laws Relevant to the Alternatives Considered

Several Federal laws regulate environmental management. The State and Federal agencies involved in this project comply with these laws and consult and cooperate with other agencies as appropriate. The following Federal laws are relevant to the actions considered in this EA:

National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321-4347).

Environmental documents pursuant to NEPA must be completed before Federal actions can be implemented. NEPA requires careful evaluation of the need for action, and that Federal actions be considered alongside all reasonable alternatives, including the "No Action Alternative". It also requires that the potential impacts on the human environment be considered for each alternative. The alternatives and impacts must be considered by the decision-maker prior to implementation, and the public is to be informed.

This EA has been prepared in compliance with NEPA; the President's Council for Environmental Quality (CEQ) Regulations, 40 CFR Section 1500 - 1508; and Department of the Interior's Departmental Manual (DM) for NEPA compliance, Fish and Wildlife Service (516 DM 6, 30 AM 2-3, 550 FW 1-3, 505 FW 1-5).

Pursuant to NEPA and CEQ regulations, this EA documents the analysis of a proposed Federal action and its alternatives, including the "No Action" alternative. The EA evaluates impacts anticipated from all alternatives; informs decision-makers and the public; and serves as a decision-aiding mechanism to ensure that NEPA and CEQ regulations have been incorporated into Federal agency planning and decision-making. The EA was prepared using an interdisciplinary approach to address all aspects of the natural and social sciences relevant to the potential impacts of the project. The direct, indirect and cumulative impacts of the proposed action are analyzed.

Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1544). It is Federal policy under the ESA that all Federal agencies shall seek to conserve endangered and threatened species and shall utilize their authorities in furtherance of the purposes of the ESA (Section 2(c)). Section 7 consultations with the Service are conducted to use the expertise of the Service to ensure that "any action authorized, funded, or carried out by such an agency . . . is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat of such species. Each agency shall use the best scientific and commercial data available" (Section 7(a)(2)).

Migratory Bird Treaty Act (MBTA), as amended (16 U.S.C. 703-711; 40 Stat. 755). The Migratory Bird Treaty Act provides the Service regulatory authority to protect species of birds

that migrate outside the United States. Individuals of species that do not migrate outside of the United States are also protected with select exceptions, namely house sparrows (*Passer domesticus*), European starlings (*Sturnus vulgaris*), and rock doves (*Columba livia*). All cooperating agencies coordinate with the Service on migratory bird issues.

Clean Water Act (CWA) (33 U.S.C. s/s 121 et seq. (1977)). The Clean Water Act is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States. This law gave the Environmental Protection Agency (EPA) the authority to set effluent standards on an industry-by-industry basis (technology-based) and continued the requirements to set water quality standards for all contaminants in surface waters. The CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit is obtained under the Act. The 1977 amendments focused on toxic pollutants. In 1987, the CWA was reauthorized and again focused on toxic substances, authorized citizen suit provisions, and funded sewage treatment plants under the Construction Grants Program. The CWA provides for the delegation by EPA of many permitting, administrative, and enforcement aspects of the law to state governments. In states with the authority to implement CWA programs, EPA still retains oversight responsibilities.

Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended (7 U.S.C. 135 et seq.; 86 Stat. 975). The primary focus of FIFRA was to provide federal control of pesticide distribution, sale, and use. EPA was given authority under FIFRA not only to study the consequences of pesticide usage but also to require users (farmers, utility companies, and others) to register when purchasing pesticides. Through later amendments to the law, users also must take exams for certification as applicators of pesticides. All pesticides used in the U.S. must be registered (licensed) by EPA. Registration assures that pesticides will be properly labeled and that, if used in accordance with specifications, will not cause unreasonable harm to the environment.

National Historical Preservation Act of 1966, as amended (U.S.C 470 et seq.). The National Historical Preservation Act requires Federal agencies to: 1) evaluate the effects of any Federal undertaking on cultural resources; 2) consult with the State Historic Preservation Office regarding the value and management of specific cultural, archaeological and historic resources; and 3) consult with appropriate American Indian tribes to determine whether they have concerns for traditional cultural resources in areas of these Federal undertakings.

1.7.2 California State Laws

California Endangered Species Act (CESA) (Fish & Game Code §§2050 et seq.)

Section 2080 of the California Fish and Game Code prohibits "take" of any species that the commission determines to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects. CESA emphasizes early consultation to avoid

potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project caused losses of listed species populations and their essential habitats.

Porter-Cologne Water Quality Control Act (California Water Code, Division 7).

The State Water Resources Board is designated as the state water pollution control agency for all purposes stated in the Federal Water Pollution Control Act, and is authorized to exercise any powers delegated to the state by the Federal Water Pollution Control Act (33 U.S.C. 1251, et seq.) and amendments. The state is divided, for the purpose of division 7 of the California Water Code, into nine regions regulated by regional water quality boards. Kern County is regulated by the Central Valley Regional Water Quality Control Board.

2.0 AFFECTED ENVIRONMENT

2.1 Physical Environment

The proposed project site is located on the alluvial outflow plains of Bear Mountain on the west side of the southern Sierra Nevada Mountains. Being on the slopes of the floor of the Great Central Valley, the proposed project site is subject to periodic alluvial flow from the southern Sierra Nevada mountains to the coast and from Caliente Creek, several miles away. Located in the southern San Joaquin Valley, the project location is in the region around the former Kern Lake, an important migratory waterfowl and shorebird foraging, nesting and resting area.

2.1.1 Climate

The southern San Joaquin Valley has a Mediterranean climate characterized by wet, cool winters and hot, dry summers. Precipitation usually begins in November, reaches a peak during the winter months, and ends in April or May in wet years and in March in dry-average years. Most of the precipitation falls between December and April (Twisselmann 1967). Total winter rainfall on the Valley floor rarely exceeds ten inches, and may be less than three inches in a dry year, averaging about 4.5-5 inches in and around the town of Bakersfield and Buttonwillow. Snowmelt from the Sierra Nevada snowpack during spring is also important to the hydrological regime of the area, particularly for groundwater. Winter temperatures are mild, but may fall too slightly below freezing for short periods. Mean January temperatures range between 32° and 56° F, with extreme lows of 20° F (Twisselmann 1967). A tule fog may extend for days at a time following brief winter rains. Summer temperatures are high with a monthly mean of 85° to 90°F and extreme temperatures well over 105°F.

2.1.2 Soils

The soils on the proposed project site are the Kimberlina fine sandy loam and the Weedpatch clay loam mapping units with associated inclusions (NRCS 1996). These soil types are not particularly permeable, having low to moderately low permeability. The high amounts of silt

and clay cause these soils to seal themselves, so they are excellent for making evaporation ponds, as percolation is limited. The soils tend to be saline-sodic in some areas, as reflected by the presence of many alkali "scalds". These saline-sodic portions may contain high amounts of boron, which may require a boron-resistant type of alfalfa or planting with Sudan grass, which alter the chemistry and structure, necessary for improved plant productivity when high levels of salts and boron are present.

2.1.3 Aesthetics

The project site is typical of degraded habitat that occurs within agricultural areas of the San Joaquin Valley. The site is gently sloping to flat, with sections of shallow minor ephemeral drainage channels that remain on the site. The habitat types that originally occurred on the project site were treeless, and the project site remains so.

2.2 Biological Environment

2.2.1 Vegetation

Desert saltbush and seepweed are the main perennial shrubs with an understory growth of dense alien annual grasses dominating the vegetated portions of the project site. As indicated by the vegetation, the project site is actually more of an alkali sink habitat type, than that of a valley saltbush scrub habitat type, as described by Pruett and Lawrence (1993). The alkali sink nature of the habitat type is also reflected by the large areas void of vegetation and the soft sodium affected soils. The project site is highly degraded as described in the HCP.

2.2.2 Wetlands

No wetlands likely existed on the original project site as no remnants of wetland vegetation are present. Ephemeral flow channels observed from aerial photography indicate a northeast to southwest flow direction for flood waters and temporary flows created by precipitation events. Pondered sewage effluent is bermed in the farthest most southwest corner of the project location and a small pond of effluent occurs alongside the northern access route. These help to minimize any off-site drainage of effluent. A 12-foot differential in elevation occurs on the project site, which causes water to flow in a southwestern direction.

2.2.3 Wildlife

The wildlife that remain on the proposed project site are typical of those found throughout the southern San Joaquin Valley and are described in the HCP. They include the Tipton kangaroo rat, range for the San Joaquin kit fox. Numerous migratory waterfowl and shorebirds pass through this region, as the path was part of the Central Valley flyway. Badger, coyote and short-tailed weasel were other predators typical of these types of sites.

3.0 DESCRIPTION OF ALTERNATIVES

3.1 Alternative A - Current Situation - No Action Alternative

This alternative would not change the *status quo*. “No Action”, in this case, means limited Federal action, which is consistent with the CEQ’s definition and requirement for a “No Action Alternative”. Under the “No Action Alternative”, the Federal lead and cooperating agencies would not issue any ITP and no HCP would be utilized for the covered species.

If the District’s project is not implemented, the District would be in continued violation of RWQCB requirements, and the Tipton kangaroo rats would continue to be lost from flooding. A cease and desist order and building moratorium could be continued into the future, having significant adverse economic effects on the region. Without a discharge spreading area and ponds, existing treatment ponds would overflow, resulting in public nuisance or health hazards, continued damage to habitat, and effluent flow off of the proposed site onto adjacent lands would occur.

Under the No Action alternative, there would also be no minimization and mitigation measures implemented as proposed, including project-related contribution towards conservation of covered species and their habitat in a conservation bank. The permanent protection and management of habitat for the Tipton kangaroo rat, San Joaquin kit fox, western burrowing owl, and other sensitive species in an area of regional importance for multispecies conservation would not be accomplished. and an opportunity lost to provide endangered species education to a number of Kern County residents who would be working on or visit this project site.

3.2 Alternative B – Proposed Federal Project Alternative

The proposed project is the expansion of the effluent discharge area onto 160 acres in Section 25, T31S, R28E, under the terms of an ITP of the Federal ESA. On the northwest corner of the site two ponds would be constructed on approximately twenty-one (21) acres. This pond construction is to be located in unoccupied and previously disturbed areas as reported by trapping reports (BioEnvironmental Associates 1995). Many activities already occur in this area such as composting and agriculture. Conservation of existing agricultural lands is also a desirable goal. The preferred project site has alkali-affected soils, which would require extensive amelioration prior to the cultivation of either new crops or vineyards. The remainder 139 acres of the property would be graded for access roads and leveled. The east side of the property, including the power line right-of-way would be planted in corn, alfalfa, or another forage crop that can be irrigated and harvested periodically through standard cultivating and harvesting techniques.

A series of terraced benches may be constructed on the east side of the site, which is designated for agricultural use, as is most of the surrounding properties. Effluent would be spread aerially onto the benches, which would be about 600 feet wide, with approximately four-foot drops in elevation between each bench. The terraced leaching benches would be used sequentially. This would allow evaporation and infiltration of the effluent into the soil while water is being spread on other benches. The effluent would be spread on each pad, as needed. Following the completion of infiltration and drying, each bench would be disked several times per year to

maintain the highest levels of permeability and percolation. Winter wheat, corn, alfalfa or another forage crop may be planted on the benches and harvested periodically.

The development of the project would entail the incidental take of approximately 76 acres of foraging habitat for the San Joaquin kit fox and 19 acres of denning habitat for Tipton kangaroo rat. The District proposes to mitigate for the take by the acquisition and long-term management of an off-site parcel of existing Tipton kangaroo rat denning habitat. The District has purchased compensation acreage credits in the amount of 57 acres at an estimated cost of \$34,200.00. Purchase of the credits was made from ARCO Western Energy at the Coles Levee Ecosystem Preserve in advance of completion of the permits, on February 4, 1998. It also provided the sum of \$27,075.00 for an endowment to ensure the long-term funding for the fencing and management of the compensation lands. The compensation acreage at the Coles Levee Ecosystem Preserve supports all of the covered species as well as other species that may be affected by this project.

The long-term economic backing for completion of this project and mitigation during site construction would come from CRRR profits and utility taxes on those residents served by the District. The RWQCB completed a Memorandum of Understanding with the CDFG for this project being implemented by the District, but CDFG did not sign it prior to expiration of [Section 2090](#).

In this proposed project alternative, the District proposes to minimize potential take by implementing the following mitigation measures:

- (1) No more than 60 days after completion of construction, applicant shall prepare and deliver to Service and CDFG a construction compliance report. This report would include documentation of the implementation of mitigation measures, and incidents of non-compliance, all available information about project-related take of species named in the Section 2081(b) Permit, and an evaluation of the effectiveness of the mitigation measures in minimizing and mitigating impacts on the species.
- (2) Applicant shall submit, no later than February 28 of each year, a status report on implementation of mitigation measures and all available information about project-related take during the preceding year. Reports shall include a copy of the table from the Mitigation Monitoring and Reporting Program with notes indicating the status of each mitigation measure.
- (3) Applicant shall fully cooperate with the CDFG in its efforts to verify compliance with, or effectiveness of mitigation measures.
- (4) A specific individual shall be designated in writing as contact representative between the District, CDFG and the Service to oversee compliance with the Biological Opinion and the HCP.
- (5) Applicant shall hire a qualified biologist to perform specific monitoring duties and other biological work as required below.

- (6) Prior to any construction, a qualified biologist shall conduct an environmental pre-activity survey of the project site no more than 30 days prior to construction to assess endangered species presence and distribution.
- (7) If Tipton kangaroo rats are present, applicant shall provide an estimation of numbers to the Service and the CDFG and the two agencies would determine whether Tipton kangaroo rats are to be trapped, salvaged, or relocated and would provide their direction to the District in writing.
- (8) In addition, all potential kangaroo rat burrows shall be hand excavated to ensure their removal. This action would also verify the burrows are not occupied by blunt-nosed leopard lizards.
- (9) Any potential San Joaquin kit fox dens would be tracked in accordance with standard agency guidelines to determine if they are active. If they are inactive, the dens would be closed. If they are active, the resource Agencies would be contacted to determine the appropriate course of action.
- (10) Project boundaries, dens/burrows or buffer zones to be avoided during construction shall be flagged and posted as necessary to prevent straying of vehicles and equipment into adjacent areas where take could occur. The applicant shall consult with a qualified biologist to determine the necessity and extent of flagging and posting.
- (11) All construction equipment, staging areas, materials and personnel shall be restricted to the project site or previously disturbed off-site areas that are not habitat for listed species.
- (12) A 25 mile-per-hour speed limit shall be enforced on the project site.
- (13) All garbage and foodstuffs shall be contained and removed from the site regularly to prevent attraction of predators, such as dogs, coyotes or San Joaquin kit fox, to the project area where they may injure or increase harassment of the Tipton kangaroo rat, or result in the potential for incidental take of the San Joaquin kit fox.
- (14) To minimize take of the Tipton kangaroo rat on adjacent habitat after conversion, a pet management plan shall be submitted to the Service and CDFG for review and approval.
- (15) Employees or contractors shall be prohibited from using firearms on, or bringing dogs or other pets to the project site, unless confined or leashed.
- (16) The applicant shall consult with the Service and CDFG prior to application of any rodenticide on the project area during construction and operation of the proposed facility. Rodenticide use shall be in accordance with FIFRA requirements being implemented under the FIFRA Biological Opinion through the Kern County Agricultural Commissioner's office.

(17) Any spills of petroleum products or other chemicals, which may represent a hazard to wildlife, shall be cleaned up promptly and in accordance with appropriate laws and regulations.

(18) All steep-walled pipeline and utility trenches shall be inspected in the mornings to prevent entrapment of kangaroo rats and/or San Joaquin kit fox, or shall be provided escape ramps as determined by a qualified biologist. All trenches shall be inspected prior to back filling and a qualified biologist shall remove any entrapped wildlife or allow animals to escape voluntarily prior to resuming construction.

(19) All pipe, culverts, or similar structures on-site with a diameter of 2-24 inches shall be inspected for endangered species prior to moving or welding, and shall be capped or otherwise covered if sections cannot be inspected to prevent the entry and potential loss of wildlife. If an endangered species is discovered inside a pipe, the animal shall be safely removed by a qualified biologist. The pipe segment shall not be moved until the animal has escaped, or the pipe segment shall be moved a single time out of the path of construction. Alternatively, stored pipe may be kept capped at all times until used during construction.

(20) To minimize disturbance of adjacent wildlife and the potential for increased night-time predation, the facility lighting shall be directed toward the facility and shielded in a manner as to minimize artificial lighting the listed species or adjacent agricultural lands. Landscaping would also be of a type to reduce or shield light from adjacent habitat.

(21) Any dead, sick or injured threatened or endangered species shall be reported within 48 hours to the Sacramento Fish and Wildlife Office of the Service and the Fresno office of the CDFG.

(22) If the incidental take of the Tipton kangaroo rat occurs during construction, the causative action shall cease immediately, and the Service and CDFG shall be contacted immediately for further guidance. Consultation may be reopened as necessary.

(23) The potential for death or injury to San Joaquin kit foxes is very low due to the limited amount of activity in the surrounding area. While modification of habitat at the existing project site may have an adverse effect on the San Joaquin kit foxes, it would not significantly impair breeding, feeding, or sheltering. If an incidental take of the San Joaquin kit fox occurs during construction the causative action shall cease immediately, and the Service and CDFG shall be contacted immediately for further guidance. Consultation may be reopened as necessary.

(24) An employee training program shall be conducted by a qualified biologist prior to construction to educate all workers on identifying threatened and endangered species along with the mitigation measures and the reporting requirements of the Section 10(a) permit.

(25) Applicant shall include in all construction contracts a requirement that the contractor comply with the mitigation requirements of the Service and CDFG. If compliance with this requirement is not possible, the District shall explain in writing to the Service and CDFG why this measure can not be fully implemented.

(26) A qualified biologist shall be present on site during the initial land clearing to insure implementation of the mitigation measures.

(27) The applicant shall provide the CDFG and Service access to the project site during construction, mitigation and monitoring to ascertain project progress and compliance.

(28) The applicant has permanently protected 57 acres of suitable habitat for the listed species at a location approved by the Service and CDFG. These conservation lands are permanently protected by a conservation easement approved by the Service and CDFG. The applicant has also provided \$27,075.00 to establish an endowment to fund long-term management of the conservation lands.

In addition to the mitigation measures being implemented for covered species, special take avoidance measures would be implemented to protect waterfowl and shorebirds that may be expected to use the area. Nesting of certain waterfowl may be encouraged with agricultural fields adjacent to ponds if there is undisturbed cover present during nesting times, such as in alfalfa. Shorebirds also may nest on barren ground along infrequently used roadways and berms. Further, if grain crops are planted, extensive foraging of waterfowl may be anticipated by certain waterfowl, especially following harvesting. Other species, such as the tricolored blackbird may both nest and forage in wheat. Harvesting activities would be conducted in such a manner and at times to avoid harm to these species. Pre-activity surveys would be conducted to ensure avoidance during nesting times.

3.3 Alternatives Considered But Eliminated from Analysis

3.3.1 Alternative C - A Zero Discharge Facility

The technology is available to construct a sewage recycling plant with zero discharge. Such a plant would create the ideal situation and would occupy much less land than a plant requiring a spreading ground, in accordance with state and federal regulations. However, this is not an economically feasible alternative for the small town of Lamont because the agricultural nature of the population in this region could not financially support such an expensive level of technology at this time and therefore does not meet the Service and applicant's purpose and need for the federally proposed project, and was therefore eliminated from analysis.

3.3.2 Alternative D - Location at Another Site

The District had specifically purchased this property for the proposed project and used it in conjunction with the CRRR activities on the adjacent site. Although another site could be purchased, none are available within the close proximity to the existing ponds that are not in dairy or existing agricultural uses.

Piping the effluent from a more distant location would incur further cost. Additionally, the requirement to pump would add an additional lifetime project cost that could not be supported.

Conservation of existing agricultural lands is also a desirable goal. The preferred project site has alkali-affected soils, which would require extensive amelioration prior to the cultivation of either new crops or vineyards. These modifications would also add additional unsupported costs to the proposed project. For these reasons, Alternative D did not meet the purpose and need for the federally proposed project, and was therefore eliminated from analysis.

4.0 ENVIRONMENTAL CONSEQUENCES

Section 4 provides information needed to make informed decisions regarding alternatives for meeting the objectives identified in Section 1. Both internal and external scoping of the proposed Federal project identified issues related to the impacts on wildlife and water quality, given the issuance of an ITP and HCP for the covered activities, due the increase of effluent disposal capability (expanding to a 160-acre site south of Lamont in Kern County, California). Some environmental impact areas are not affected by the permitting of the proposed project, and therefore, were not discussed in this EA, including: noise and transportation.

4.1 Environmental Consequences of Alternative A - No Action Alternative

4.1.1 Wildlife

Under the No Action alternative, the engineering facilities would not contribute to the environmental protection of the covered species, nor would the take avoidance and mitigation measures for covered species and habitat be fully implemented. Loss of Tipton kangaroo rats on the project site likely would continue from flood and uncontrolled overflow from the existing facilities when that occurs. Harassment of any kit fox could occur without permit, and the proposed HCP habitat enhancements for the kit fox, waterfowl, and shorebirds that are likely to occur with the implementation of the beneficial agricultural activities on the degraded and otherwise disturbed lands would not occur.

Conclusion: Significant negative impact with no mitigation

4.1.2 Water Quality

Under the No-Project alternative, the District would be in continued violation of RWQCB requirements. Without new ponds and a discharge spreading area, the treatment ponds would overflow and become a public nuisance or health hazard. In addition, effluent may continue to damage habitat and continue to flow off the proposed project site into adjacent lands.

Conclusion: Significant negative impact with no mitigation

4.2 Environmental Consequences of Alternative B - Proposed Project Alternative

4.2.1 Wildlife

The proposed action is the issuance of an ITP for the expansion of the effluent discharge area into the 160 acres in Section 25, T31S, R28E, as outlined in the HCP. This permit would authorize the incidental take of the endangered Tipton kangaroo rat and its habitat through development of 19 acres of denning habitat of the Tipton kangaroo rat. It would also authorize the take (in the form of harassment) of the San Joaquin kit fox and the western burrowing owl during the construction and operation of the proposed effluent spreading development.

The Tipton kangaroo rat is a State and Federal endangered species. Re-grading of the project site would be required to establish the benches, terraces, and ponds, resulting in the loss of about 19 acres of occupied Tipton kangaroo rat habitat. During the initial earthmoving activities, Tipton kangaroo rats may be killed by being crushed or buried in their burrows. Once the development has been constructed, the potential exists for take during the life of the project if individuals emigrate to the site from nearby lands.

The San Joaquin kit fox is protected under Federal endangered status and State threatened status. Direct mortality or injury of the San Joaquin kit fox is not likely during construction, as they do not occur on the site at this time, but they could move through the project site and be harassed.

The western burrowing owl is not a listed species, but it is protected by the federal Migratory Bird Treaty Act, and a proposal to list it is pending review with the CDFG. Western burrowing owls have been known to occupy the same areas identified as occupied Tipton kangaroo rat habitat. They may occupy ground squirrel burrows adjacent to the agricultural fields or along road ditches and berms. Although several were identified on the site in 1997, only one was observed in 1998. This species may return to the site at any time during or after completion of construction.

Numerous migratory waterfowl and shorebirds (Appendix A) may be expected to occur and forage or nest on the site, particularly following development. They may use the ponds or forage in the agricultural fields on the site. Harvesting of grain or other agricultural crops or other pond and terrace maintenance activities on the project site may impact nesting or foraging waterfowl. These activities and fence line maintenance may also affect ground-nesting raptors.

Mitigation

The District proposes to compensate for the loss of habitat by the providing for the acquisition and long-term management of an off-site parcel of known Tipton kangaroo rat habitat encompassing 57 acres. The HCP also details the take avoidance, mitigation, compensatory measures and funding commitments needed to accomplish and operate the project. The District has prepared and entered into management agreements with the Service and CDFG confirming implementation of the mitigation and compensation measures and the responsibilities of all the

parties in order to ensure the follow-through and success of the project and all its mitigation measures.

Environmental preactivity surveys would be conducted prior to agricultural activities that could result in take of migratory waterfowl or shorebirds. If feasible, harvesting would be modified to avoid take. Any harvesting that could not be modified to avoid take of young or nests would be postponed until the young have fledged.

Whereas the proposed site has already been degraded and has alkali-affected soils that make it less desirable for dairy or for other agricultural uses because of the added cost involved in the required soil modification prior to the use for either new crops or vineyards, implementation of the project would result in the best mitigation for wildlife.

Conclusion: Significant impact mitigated below significance

4.2.2 Water Quality

The secondary effluent wastewater has been approved for use on non-human consumption crops such as cotton, alfalfa and other livestock forage crops. The possibility that the water would contain higher than normal coliform and nitrates (but no higher than standing water) exists, making it unhealthy for direct human consumption (Clinton Stewart, personal communication to Marcia Wolfe, 2003).

As the soils do not percolate well, they would limit the amount of coliform bacteria that may enter the groundwater table. The berms and ponds would help prevent the water from running onto other properties. As the southern San Joaquin Valley is basically a “dead-end” watershed, no pathway exists for the effluent to enter any large natural waterways.

Mitigation

The implementation of the project and its engineering features would help to prevent contamination of land off-site.

Conclusion: Significant impact mitigated below significance.

4.2.3 Aesthetics

The composting facility is considered to be aesthetically compatible with the agricultural development in the surrounding area. Additionally, the applicant would use perimeter landscaping to mitigate any visual concerns identified.

Conclusion: Negative visual impacts, though not significant, mitigated to reduce impact

4.2.4 Other Resources

The applicant's proposed project discussed in this EA involves activities that are similar to ongoing agricultural activities in the area.

Water Resources

The proposed project is not designed to occur in riparian areas or wetlands. The proposed expansion of effluent disposal capacity is not expected to create a domestic (industrial, agricultural) water demand, which might substantially degrade or deplete groundwater resources; nor would it interfere substantially with present groundwater recharge capabilities. The site is not located in a 100-year floodplain; it is located in a 500-year floodplain. The proposed project would not result in a substantial increase of runoff resulting in flooding. Groundwater degradation would be mitigated through the irrigation and storage plan, and the cropping pattern of the land to accept treated effluent would be high-nitrogen consuming crops.

Conclusion: No significant impacts. Minor negative groundwater impacts mitigated.

Housing and Community Development

There is no housing in this project. The proposed project is not expected to induce substantial growth or concentration of the human population, or to displace a large number of people. The proposed project design is not expected to disrupt or divide the existing geographic arrangement of an established community.

Conclusion: No significant impacts

Aesthetics and Air Quality

The proposed project involves the storage of treated wastewater effluent; the regulatory requirements for treated effluent indicate that odors would be controlled by maintaining sufficient dissolved oxygen in the effluent. Accordingly, there would not be an impact to air quality.

Conclusion: No significant impacts

The project alternatives that were analyzed are not expected to affect other resource values, including geology, minerals, floodplains, wetlands, air quality, prime and unique farmlands, aquatic resources, vegetation, recreational facilities, or cultural resources. Also, there are no significant irreversible or irretrievable commitments of resources. These resources will therefore, not be analyzed in this EA.

4.3 Cumulative Impacts

NEPA defines cumulative effects as those resulting from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what

agency (Federal or non-Federal) or person undertakes such actions. An effect might be considered cumulative even if it results from individually insignificant actions, as long as collectively the actions are significant and take place over a period of time (40 Federal Register 15087). These effects might be due to the combined effects of different components of the same project, from different projects in the same region that have occurred in the past or are approved or reasonably foreseeable for the future, or from effects in conjunction with natural events.

Without compensation and mitigation, the loss of threatened and endangered species habitat in the southern San Joaquin Valley could result in an overall significant cumulative impact occurring from development, oil and gas activities, agricultural activities and other types of activities and industry that result in habitat loss. Habitat loss has been the primary cause of endangerment of most terrestrial species in the southern San Joaquin Valley.

At this time, numerous habitat conservation plans are being implemented in the southern San Joaquin Valley, concomitantly with measures delineated in the Recovery Plan for Upland Species of the San Joaquin Valley, California (Service 1998). With the implementation of the CDFG Section 2081 permit, and of the District's HCP, herein incorporated by reference, the impacts of the proposed District sewage effluent expansion project are anticipated to reduce identified potential impacts to less than significant and would not result in any significant cumulative impacts.

Conclusion: Possible significant cumulative impact mitigated below significance

5.0 LITERATURE CITED

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APPENDIX A
ADDITIONAL BIRD SPECIES OF CONCERN

ADDITIONAL BIRD SPECIES OF CONCERN

Species	Federal Status	State Status
<u>Birds</u>		
American bittern (<i>Botaurus lentiginosus</i>)	MBTA	
American peregrine falcon (<i>Falco peregrinus anatum</i>)	MBTA	Endangered
Bank swallow (<i>Riparia riparia</i>)	MBTA	Threatened
Black crowned night heron (<i>Nycticorax nycticorax</i>)	MBTA	
Black swift (<i>Cypseloides niger</i>)	MBTA	
Black tern (<i>Chidonias niger</i>)	MBTA	CSC
California condor (<i>Gymnogyps californianus</i>)	MBTA Endangered	Endangered
Canvasback (<i>Aythya valisineria</i>)	MBTA	
Caspian tern (<i>Sterna caspia</i>)	MBTA	
Common barn owl (<i>Tyto alba</i>)	MBTA	
Common loon (<i>Gavia immer</i>)	MBTA	
Common nighthawk (<i>Chordeiles minor</i>)	MBTA	
Cooper's hawk (<i>Accipiter cooperi</i>)	MBTA	CSC
Double-crested cormorant (<i>Phalacrocorax auritus</i>)	MBTA	CSC
Ferruginous hawk (<i>Buteo regalis</i>)	MBTA	CSC

Fulvous whistling duck (<i>Dendrocygna bicolor</i>)	MBTA	CSC
Golden eagle (<i>Aquila chrysaetos</i>)	Eagle Protection Act and MBTA	CSC
Great egret (<i>Ardea alba</i>)	MBTA	CDF:sensitive
Great blue heron (<i>Ardea herodias</i>)	MBTA	CDF:sensitive
Greater sandhill crane (<i>Grus canadensis tabida</i>)	MBTA	Threatened
Green-backed heron (<i>Butorides virescens</i>)	MBTA	
Le Conte's thrasher (<i>Taxostoma lecontei</i>)	MBTA	CSC
Least bell's vireo (<i>Vireo bellii pusillus</i>)	MBTA Endangered	Endangered
Lesser nighthawk (<i>Chordeiles acutipennis</i>)	MBTA	
Loggerhead shrike (<i>Lanius ludovicianus</i>)	MBTA	CSC
Long-billed curlew (<i>Numenius americanus</i>)	MBTA	CSC
Long-eared owl (<i>Asio otus</i>)	MBTA	CSC
Merlin (<i>Falco columbarius</i>)	MBTA	CSC
Mountain plover (<i>Charadrius montanus</i>)	MBTA Proposed Threatened	CSC
Northern goshawk (<i>Accipiter gentilis</i>)	MBTA	CSC
Northern harrier (<i>Circus cyaneus</i>)	MBTA	CSC
Osprey (<i>Pandion haliaetus</i>)	MBTA	CSC
Prairie falcon	MBTA	CSC

<i>(Falco mexicanus)</i>		
Purple martin <i>(Progne subis)</i>	MBTA	CSC
Red-shouldered hawk <i>(Buteo lineatus)</i>	MBTA	
Sharp-shinned hawk <i>(Accipiter striatus)</i>	MBTA	CSC
Short-eared owl <i>(Asio flammeus)</i>	MBTA	CSC
Snowy egret <i>(Egretta thula)</i>	MBTA	
Sora <i>(Porzana carolina)</i>	MBTA	
Southwestern willow flycatcher <i>(Empidonax trailii extimus)</i>	MBTA Endangered	
Tricolored blackbird <i>(Agelaius tricolor)</i>	MBTA	CSC
Virginia rail <i>(Rallus limicola)</i>	MBTA	
Western burrowing owl <i>(Athene cunicularia)</i>	MBTA	CSC
Western grebe <i>(Aechmophorus occidentalis)</i>	MBTA	
Western least bittern <i>(Ixobrychus exilis hesperis)</i>	FSC	CSC
Western snowy plover <i>(Charadrius alexandrinus nivosus)</i>	MBTA	CSC
White-faced ibis <i>(Plegadis chihi)</i>	MBTA	CSC
Wood duck <i>(Aix sponsa)</i>	MBTA	
Yellow warbler <i>(Dendroica petechia brewsteri)</i>	MBTA	CSC

MBTA - Protected by the Federal Migratory Bird Treaty Act
CSC - California Department of Fish and Game "Species of Special Concern"
CDF:sensitive - California Department of Forestry and Fire Protection "sensitive species"
FSC - Federal "Species of Concern"