

**Draft**

**Initial Study/Mitigated Negative Declaration (IS/MND)**

**Issuance of Waste Discharge Requirements for the  
Agricultural Beneficial Use of Treated Industrial Wastewater  
57 East Shank Road in Brawley  
Imperial County, California**



**October 2016**

Prepared for:

**Colorado River Basin Regional Water Quality Control Board**

Prepared by:

**Environmental Resources Management on behalf of OWB Packers, LLC**

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## LIST OF ACRONYMS

AADT	Average Annual Daily Traffic
AADTT	Total Average Annual Daily Truck Traffic
AQAP	Air Quality Attainment Plan
ATC	Authority to Construct
Basin	Salton Sea Air Basin
bgs	below ground surface
BioFiltro	BioFiltro BIDA®
BMP	best management practice
BOD	biochemical oxygen demand
Caltrans	California Department of Transportation
CAO	Cleanup and Abatement Order
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CH <sub>4</sub>	methane
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
CUP	Conditional Use Permit
DAF	Dissolved Air Flotation
dBA	A-weighted decibel
DOC	California Department of Conservation
EIR	Environmental Impact Report
FOG	fats, oils, and grease
GHG	greenhouse gas
gpd	gallons per day
GWP	global warming potential
HFC	hydrofluorocarbon
HMBP	Hazardous Materials Business Plan
ICAPCD	Imperial County Air Pollution Control District
IID	Imperial Irrigation District
LOS	level of service
mg/L	milligrams per liter
MGD	million gallons per day

MND	Mitigated Negative Declaration
MT/yr	metric tonnes per year
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
National Beef	National Beef California, LP
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	Oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
O <sub>3</sub>	ozone
OSHA	Occupational Safety and Health Administration
OWB	OWB Packers, LLC
PFC	perfluorocarbon
PM <sub>2.5</sub>	particulate matter of 2.5 micrometers or less
PM <sub>10</sub>	particulate matter of 10 micrometers or less
POTW	publicly owned treatment works
Regional Water Board	Regional Water Quality Control Board
RMP	Risk Management Plan
ROG	reactive organic gases
ROWD	report of waste discharge
SAAQS	State Ambient Air Quality Standards
SAF	suspended air floatation
SF <sub>6</sub>	sulfur hexafluoride
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	oxides of sulfur
SPCC	Spill Prevention, Control, and Countermeasures
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
TDS	total dissolved solids
TSS	total suspended solids
USFWS	United States Fish & Wildlife Service
VMT	vehicle miles traveled
WDR	Waste Discharge Requirement

## GENERAL INFORMATION

<b>Project Title:</b>	Issuance of Waste Discharge Requirements for the Agricultural Beneficial Use of Treated Industrial Wastewater
<b>Lead Agency Name:</b>	Colorado River Basin, California Regional Water Quality Control Board (hereafter Regional Water Board)
<b>Lead Agency Address:</b>	73-720 Fred Waring Drive, Suite 100, Palm Desert, CA 92260
<b>Contact Person:</b>	Jose Cortez, WRC Engineer
<b>Contact Phone Number, email:</b>	(760) 776-8963, Jose.Cortez@waterboards.ca.gov
<b>Project Applicant's Name:</b>	OWB Packers, LLC Eric Brandt, President
<b>Project Applicant's Address:</b>	6363 Knott Avenue Buena Park, CA 90620
<b>General Plan Designation:</b>	Industrial
<b>Zoning:</b>	M-2 Heavy Manufacturing (Facility); M-1 Light Manufacturing (agricultural land)
<b>Description of Project:</b>	The proposed Project consists of the issuance of Waste Discharge Requirements (WDRs) to One World Beef Packers, LLC existing slaughterhouse (a.k.a. beef plant) in Brawley for the discharge of up to 238,000 gallons per day (GPD) of treated industrial wastewater onto onsite unlined ponds for storage and reclaimed for Agricultural Beneficial on approximately 140 acres of farmland to grow Bermuda grass or other fodder crops for cattle feed. The project includes the construction and operation of a new BioFiltro wastewater treatment system for the beef plant. This CEQA review is needed to justify the issuance of new WDRs by the Regional Water Board to authorize the reuse of reclaimed water for agricultural uses on and off the site.
<b>Surrounding Land Uses and Setting:</b>	The Project Area is surrounded by industrial and agricultural uses: to the west are a railroad track and other industrial uses; to the north is the Brawley Bypass and agricultural fields; to the east is agricultural fields; and to the south is the Brawley Municipal Airport.
<b>Other Responsible Agencies:</b>	City of Brawley, Imperial Irrigation District, Imperial County, Imperial County Air Pollution Control District

## 1.0 INTRODUCTION

OWB Packers, LLC (OWB) recently acquired an existing slaughterhouse and beef- processing facility (hereafter referred to as “Facility”) located at 57 East Shank Road in Brawley, Imperial County, California as shown on **Figure 1**. The Facility was operated by National Beef California, LP (National Beef) until May 2014, and has been idle since then. OWB intends to restart operations at the current Facility.

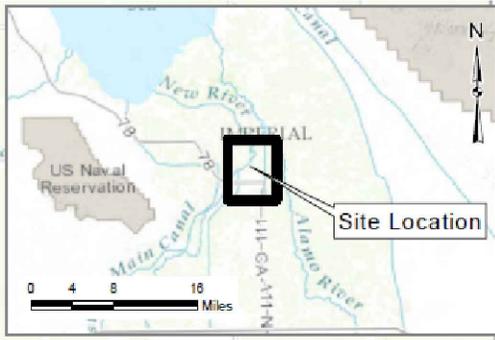
OWB will operate the Facility in accordance with the terms of Conditional Use Permit No. 00-01 issued by the City of Brawley (City) on September 29, 2000 (CUP). The CUP approved the construction, operation, and maintenance of a beef-processing plant on the entire site subject to the conditions listed in the CUP. The CUP transferred to OWB when it purchased the Facility in 2016.

Prior to approving the CUP, the City, as lead agency under the California Environmental Quality Act (CEQA) (Public Resources Code § 21000 *et seq.*), adopted a Mitigated Negative Declaration (MND) to assess the potential environmental impacts of the construction and operation of the Facility and the discharge of pretreated wastewater from the Facility into the City of Brawley sewage collection and wastewater treatment plant (a.k.a. publicly owned treatment works (POTW; City of Brawley 2000)). The MND identified certain mitigation requirements that were incorporated into the CUP.

The Facility currently includes an onsite pretreatment wastewater treatment system that consists of several dissolved air flotation units (DAFs), a surface air flotation unit (SAF), an anaerobic pond, an aerated treatment pond, a polishing/aerobic pond, and a filter-belt press to dewater solids removed from the wastewater. From a Colorado River Basin California Regional Water Quality Control Board (hereafter “Regional Water Board”) regulatory perspective, all of the ponds are unlined; therefore, they can also percolate wastewater into areal groundwater in the vicinity of the Facility. The aerated and polishing ponds can also dispose of wastewater by evaporation. When National Beef operated the Facility, it discharged from the wastewater treatment system to the City’s sewage collection and wastewater treatment system (a.k.a. Publicly Owned Treatment Works (POTW)).

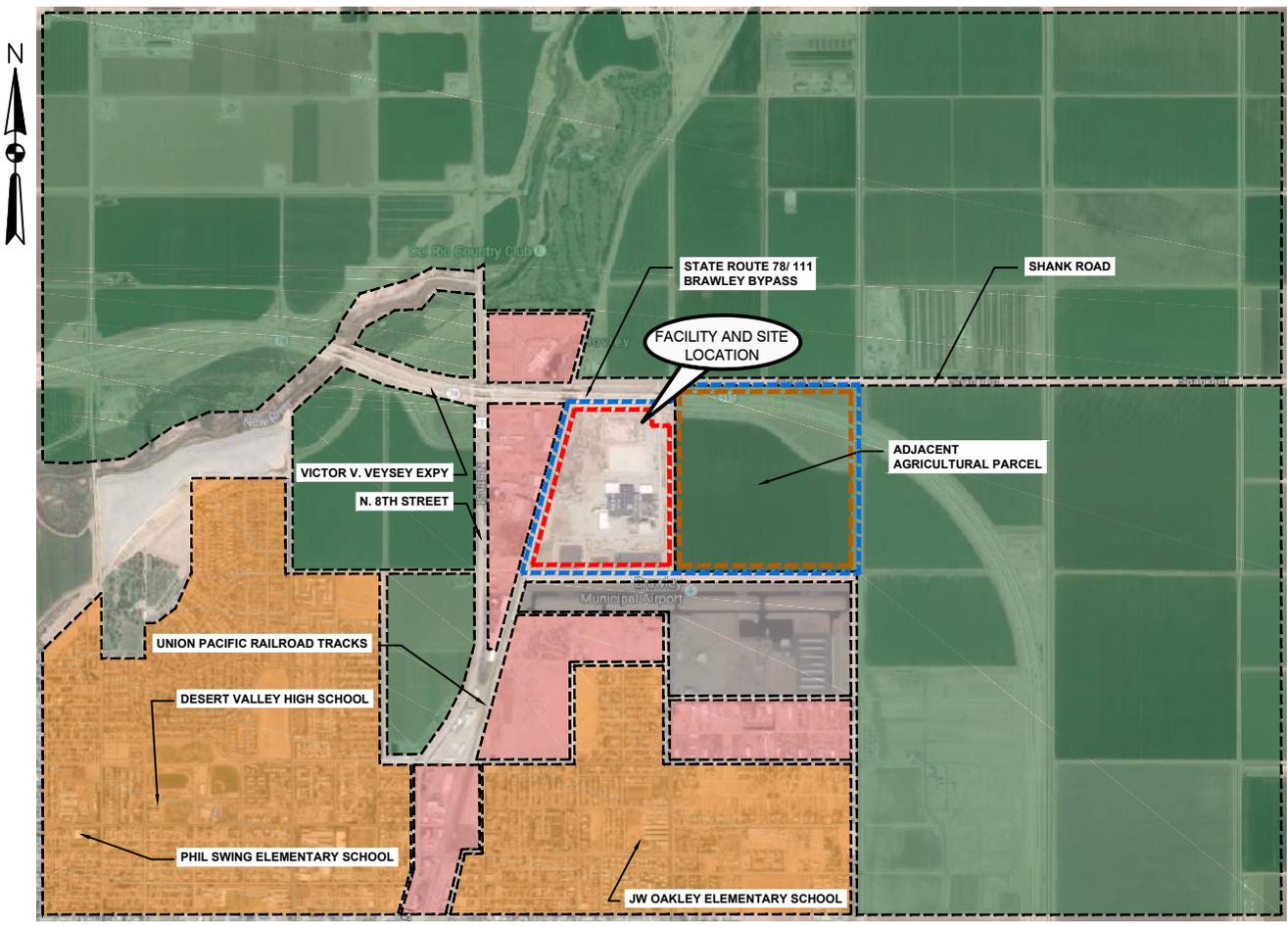
OWB proposes to upgrade the existing onsite wastewater treatment system at the Facility by installing a BioFiltro BIDA® System (BioFiltro) that would replace the anaerobic and aerated pond-based wastewater treatment systems. The BioFiltro system is a patented treatment system that uses biological processes to treat wastewater in concrete containment tanks. The proposed BioFiltro system would have ultimate treatment capacity of 800,000 gallons per day (gpd) and will be built in three Phases.

OWB proposes to discharge up to 238,000 gallons per day (gpd) of treated wastewater onto a 10-acre parcel that is within the Facility and to a 130-acre parcel located immediately east of the Facility. The treated wastewater would be reclaimed on the 10- and 130-acre parcels to grow Bermuda grass or other fodder crops for cattle feed. The 140 acres have a projected disposal capacity of 238,000 gpd. OWB is obtaining permission from the City of Brawley to discharge up to 562,000 gpd of treated wastewater from the ponds to the City POTW. It is anticipated that the BioFiltro system would also enable OWB to meet the pretreatment standards for discharge to the City POTW.



**LEGEND**

-  SITE BOUNDARY
-  ADJACENT AGRICULTURAL PARCEL
-  PROJECT AREA
-  AGRICULTURAL LAND
-  RESIDENTIAL PROPERTIES
-  BRAWLEY MUNICIPAL AIRPORT
-  COMMERCIAL AREA



0 2600  
Approx. Scale (feet)

**Figure 1**  
*Site Location and Surrounding Land Uses*  
*57 East Shank Road*  
*Brawley, Imperial County, California*

Drawn By: J. Rahmani  
 Date: 10/10/2016  
 Project No: 0364807.002-01  
 CAD File: G:\DWGS\0364807 One WorldBee\002\0364807002-08.dwg

References:  
Google Map



OWB has applied to the Regional Water Board for waste discharge requirements (WDRs) for the proposed discharge to the storage ponds and the 140 acres for irrigation purposes. Specifically, OWB submitted a report of waste discharge (ROWD) to the Regional Water Board in June 2016 and an amended ROWD dated September 16, 2016, for the WDRs. The discharge to the unlined ponds is currently governed by Regional Water Board WDRs Order No. R7-2016-0007 and Time Schedule Order R7-2016-0008. The proposed discharge from the OWB ponds to the POTW, if approved by the City of Brawley, would have to be regulated by the City pursuant to its approved Pretreatment Program.

Other than the proposed changes in the method of treatment and disposal of the wastewater, operation of the Facility has been and continues to be subject to the conditions of the CUP. The analysis and findings in the 2000 MND of the environmental impacts of the construction and operation of the Facility remain valid and are adopted and incorporated by reference for purposes of this CEQA analysis. This CEQA analysis focuses on the potential impacts caused by the proposed installation and use of the BioFiltro system to treat process wastewater generated by the Facility and by the discharge of the reclaimed wastewater for reuse on land for agricultural uses.

## 1.1 AGENCY AUTHORITY

CEQA, and the CEQA's implementing regulations, the CEQA Guidelines (Title 14 California Code of Regulations § 15000 *et seq.*), require that the environmental impacts of a public agency's proposed discretionary action be evaluated and that feasible methods to reduce, avoid, or eliminate significant adverse impacts of such actions be identified and implemented, if feasible. The "lead agency" is the public agency that has the principal responsibility for carrying out or approving a "project" that may have a significant effect upon the environment. (Public Resources Code § 21067)

Here, the proposed WDRs require discretionary approval from the Regional Water Board, and its approval of the WDRs is a "project" subject to CEQA. Because the Regional Water Board has the primary responsibility approving the issuance of the WDRs, it is the appropriate public agency to act as the CEQA lead agency (CEQA Guidelines § 15051(b)). Although the Regional Water Board is the lead agency for this Project, the construction and operation of the Facility was previously analyzed in the MND prepared by the City as lead agency to support its approval of the CUP. The MND adopted by the City remains valid, and this CEQA document is subsequent to it. OWB's operation of the Facility must comply with the conditions of the CUP.

Under CEQA, where a project has been subject to previous CEQA review, including through an MND, any subsequent CEQA analysis must address only the "incremental differences between the original project and the modification when evaluating whether the modifications to the original proposal would result in any significant environmental impacts." (*Benton v. Board of Supervisors* (1991) 226 Cal.App.3d 1467, 1484). That means that the Regional Water Board's CEQA analysis should not consider the impacts of the operation of the entire facility that were addressed in the MND (City of Brawley 2000), including the proposed discharge of up to 562,000 gpd into the City POTW, since no change in operation is proposed, but rather the potential environmental impacts from the installation and operation of the upgraded wastewater treatment system and the use of the reclaimed water for agricultural purposes. The operations allowed on the site under the CUP, National Beef's historical operations on the site, and the

historical use of the site and the neighboring property for agriculture establish the baseline on which the analysis of environmental impacts is based (*North County Advocates v. City of Carlsbad* (2015) 241 Cal.App.4th 94, 105).

This Initial Study/Negative Declaration addresses whether the installation, operation, and maintenance of the BioFiltro system at full capacity (800,000 gpd) and its ancillary pipelines, as well as the reuse of the reclaimed water on a 10-acre onsite parcel and on a 130-acre offsite parcel, may cause a significant effect on the environment. If a significant effect is identified, CEQA requires that the agency determine if those effects can be reduced or avoided by changing the Project, imposing conditions, or by other means (CEQA Guidelines §15152(b)(2)). If such revisions, conditions or other means to lessen significant impacts are identified, they will be listed as mitigation measures. The determination of whether a project may have a significant effect on the environment is a critical step in the CEQA process, and one that requires professional knowledge and judgment, as described in CEQA Guidelines Section 15064. The determination should be supported by substantial evidence in the record and, to the extent feasible, on scientific and factual data.

The evaluation provided in Chapter 2 analyzes and discusses the following areas of potential environmental impacts: aesthetics, agricultural and forestry resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation/traffic, utilities/service systems and mandatory findings of significance. After evaluating the information on the proposed Project in light of the requirements of CEQA, the Regional Water Board has concluded that the proposed Project would not have any significant effects on the environment that cannot be mitigated to a less-than-significant level.

## 1.2. PROJECT LOCATION

The Project Area is in Brawley, California, approximately 125 miles east of downtown San Diego. The area covers two sites in the northern part of the city: (1) the Facility, which has an address of 57 East Shank Road, and includes the area where the BioFiltro will be built and the proposed 10-acre wastewater reclamation parcel; and (2) the other 130-acre proposed wastewater reclamation parcel, which is immediately east of the Facility. The Facility is south of the State Route (SR) 78/111 Brawley Bypass (Brawley Bypass), north of the Brawley Municipal Airport, east of Southern Pacific Railroad tracks, and west of agricultural fields. The Project location is shown on **Figure 1**.

The existing Facility is located on 140 acres identified by Imperial County Assessor's Parcel Numbers 047-010-029, 047-020-015, 047-020-016, and 047-020-017, within Tracts 76 and 78, Township 13 South, Range 14 East, San Bernardino Baseline and Meridian. The area covered by the Facility is zoned for industrial land use under the City's 2015 General Plan, and is identified as being within an "M-2 Heavy Manufacturing and Industrial" zone by the City Zoning Ordinance (City of Brawley Zoning Ordinance, Art. VI § 27.90).

## 1.3. SURROUNDING LAND USES

As shown on **Figure 1**, the adjacent properties to the Facility and 130-acre parcel include:

- North – SR-78/111 Brawley Bypass and agricultural land beyond;
- East – Agricultural land;
- South – Brawley Municipal Airport followed by a mix of residential and commercial properties; and
- West – Southern Pacific Railroad tracks with commercial properties and agricultural land farther west.

#### 1.4. PROJECT AREA CONDITIONS AND PREVIOUS OPERATIONS

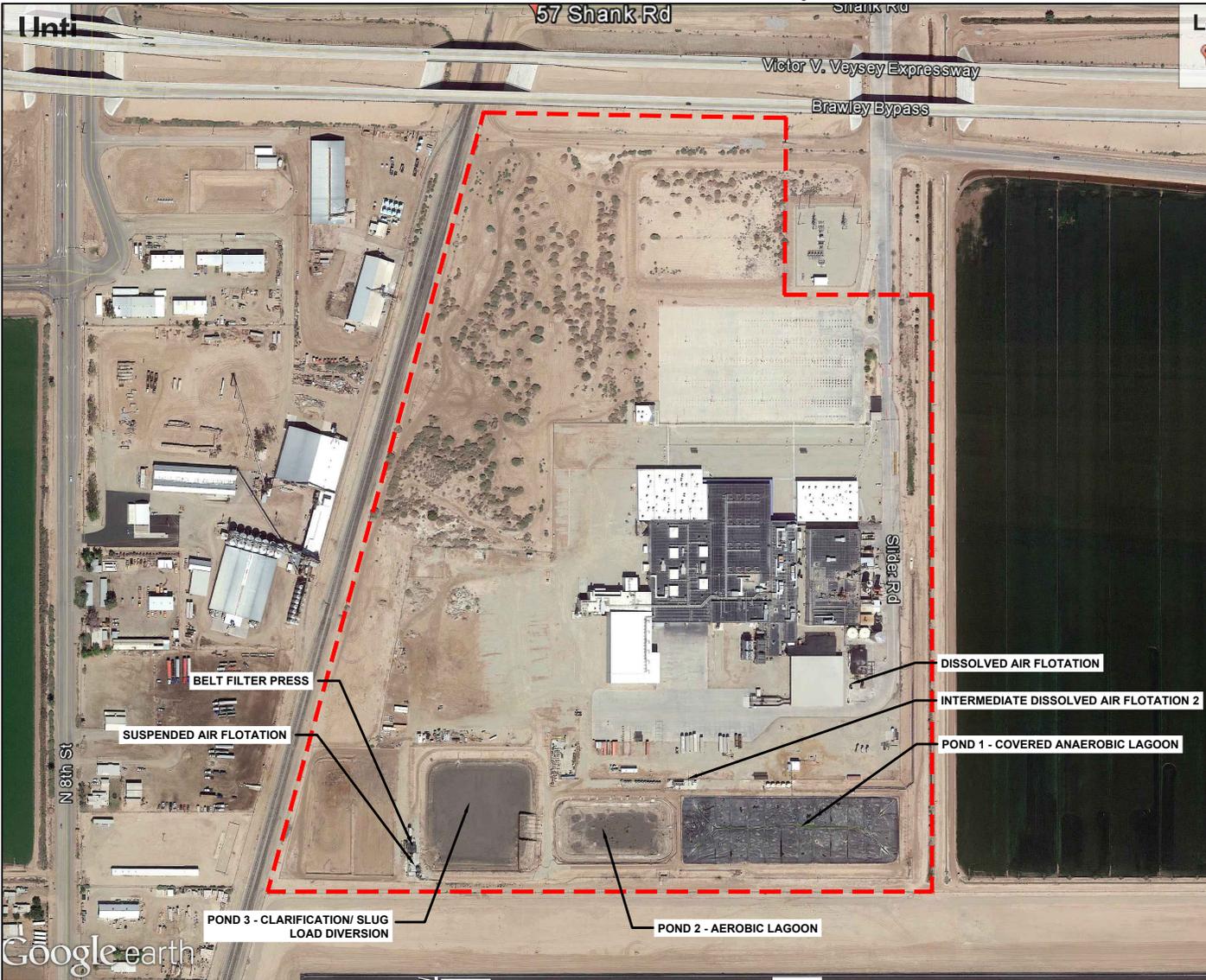
The existing 345,769-square-foot slaughterhouse (a.k.a. beef plant) was built in 2001 by Brawley Beef, LLC, which was acquired by National Beef in 2006. OWB acquired the Facility in June 2016. The Facility has been idle since May 2014, when National Beef ceased operations. The 140-acre area where the Facility was built was original farmland, which was irrigated for production of various crops, including alfalfa and Bermuda Grass. Similarly, the 130-acre parcel, which is proposed for reclamation of treated wastewater, has been historically used for agricultural purposes.

During the period prior to 2014, wastewater from the beef-processing operations was pretreated using DAFs, an SAF, and a series of onsite treatment ponds. The pretreated wastewater then was discharged to the City POTW pursuant to industrial wastewater discharge permit issued by the City to National Beef. The City POTW discharges treated wastewater into the New River in accordance with National Pollutant Discharge Elimination System (NPDES) Permit CA7000009, which was issued by the Regional Water Board. Water use during the National Beef period averaged approximately 2 million gallons per day (MGD), and the Facility generated approximately 0.590 to 1.655 MGD of industrial wastewater.

The existing wastewater treatment system consists of the following:

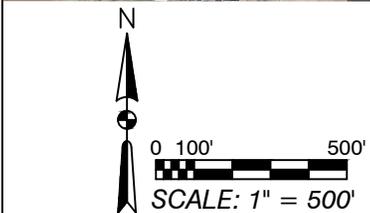
- Primary screening;
- DAF 1 and DAF 2 to remove grease and suspended solids;
- Pond 1 – 9.5-million-gallon storage capacity, covered anaerobic lagoon;
- Intermediate DAF 3;
- Pond 2 – 2.9-million-gallon storage capacity, clay-lined aerobic lagoon;
- Pond 3 – 6.5-million gallon storage capacity, pond separated into Ponds 3A, 3B, and 3C;
- SAF; and
- Belt Filter Press for dewatering sludge from Pond 2, intermediate DAF, and SAF.

**Figure 2** shows the legacy wastewater treatment system, which operated as described below.



**LEGEND**

 SITE BOUNDARY



References:  
Google Earth

**Figure 2**  
*Legacy Wastewater Treatment System Schematic*  
*57 East Shank Road*  
*Brawley, Imperial County, California*

The wastewater that was treated in the existing treatment system was generated from the beef-processing, rendering, and fabricating operations, and the refrigeration and boiler units. The wastewater was directed through a screen, and routed to a wet well before entering the DAF 1 to remove grease and solids prior to being discharged for anaerobic treatment in Pond 1 to lower the biochemical oxygen demand (BOD). Cooling water, cattle pen mister water, pen wash water, and DAF stick water went directly into Pond 1 for anaerobic treatment at an estimated maximum discharge rate of 95,000 gpd. Sanitary wastewater generated from employees and contractors was discharged by a separate pipe directly to the City municipal sewer system until May 2013 when the City required that National Beef discharge the sanitary flow to the anaerobic lagoon as well.

The comingled wastewater was treated in Pond 1 and then directed through DAF 3 to prevent grease from entering Pond 2. Pond 2 was operated to remove BOD and ammonia through the use of 13 surface aerators (40- or 75-horsepower) and bubble diffusers. That water then was sent to Pond 3A, the main clarifier, for secondary treatment. The water then went to Pond 3B through a weir and into the SAF for tertiary solids removal prior to discharge to the City sewer system. Pond 3C has not been used since 2012.

Because of the quality of wastewater discharged by National Beef to the unlined ponds and site-specific hydrological conditions, on March 20, 2014, the Regional Water Board issued Cleanup and Abatement Order R7-2014-0033 (CAO) to National Beef requiring, in relevant part, that National Beef brought the Pond 1 up to the standards prescribed in Title 27 of the California Code of Regulations. In response, National Beef ceased operations entirely in May 2014 and proposed to “clean close” the pond treatment system. On January 14, 2016, the Regional Water Board rescinded the CAO issued to National Beef in anticipation of the sale of the property. On June 15, 2016, OWB purchased the Facility from National Beef.

## 1.5 PROJECT OBJECTIVES

OWB’s goal is to achieve an environmentally sound and sustainable beef-processing operation in Brawley by upgrading the wastewater treatment system with the BioFiltro system and using the reclaimed water to grow Bermuda grass or other fodder crops for cattle feed on approximately 10 acres at the Facility and approximately 130 acres on adjacent, existing farmland. The use of the reclaimed water would be in accordance with WDRs issued by the Regional Water Board.

Using the BioFiltro system in place of the treatment ponds would help OWB achieve this sustainability goal because it would (1) allow OWB to use the reclaimed water for irrigation, thus reducing the amount of imported water needed for irrigation; and (2) reduce the Facility’s energy demands. Energy use would be reduced, in part, because the BioFiltro system would eliminate the need to use the existing 13 surface aerators in Pond 2 to lower BOD.

### 1.5.1 Proposed Operations

During the period that National Beef operated the Facility, it processed between 1,600 and 2,500 cattle per day for the market using holding pens, a slaughterhouse, and fabrication processes.

OWB will restart operations and process beef products in a similar manner, offering boxed beef and variety meats and beef byproducts domestically and internationally. OWB will use the existing plant facilities as modified or upgraded where needed to conduct processing operations

that are within the scope of those authorized by the CUP and new WDRs issued by the Regional Water Board for the existing Facility and analyzed in the MND. The rendering plant would not be operated during the initial operations or contribute to wastewater requiring treatment.

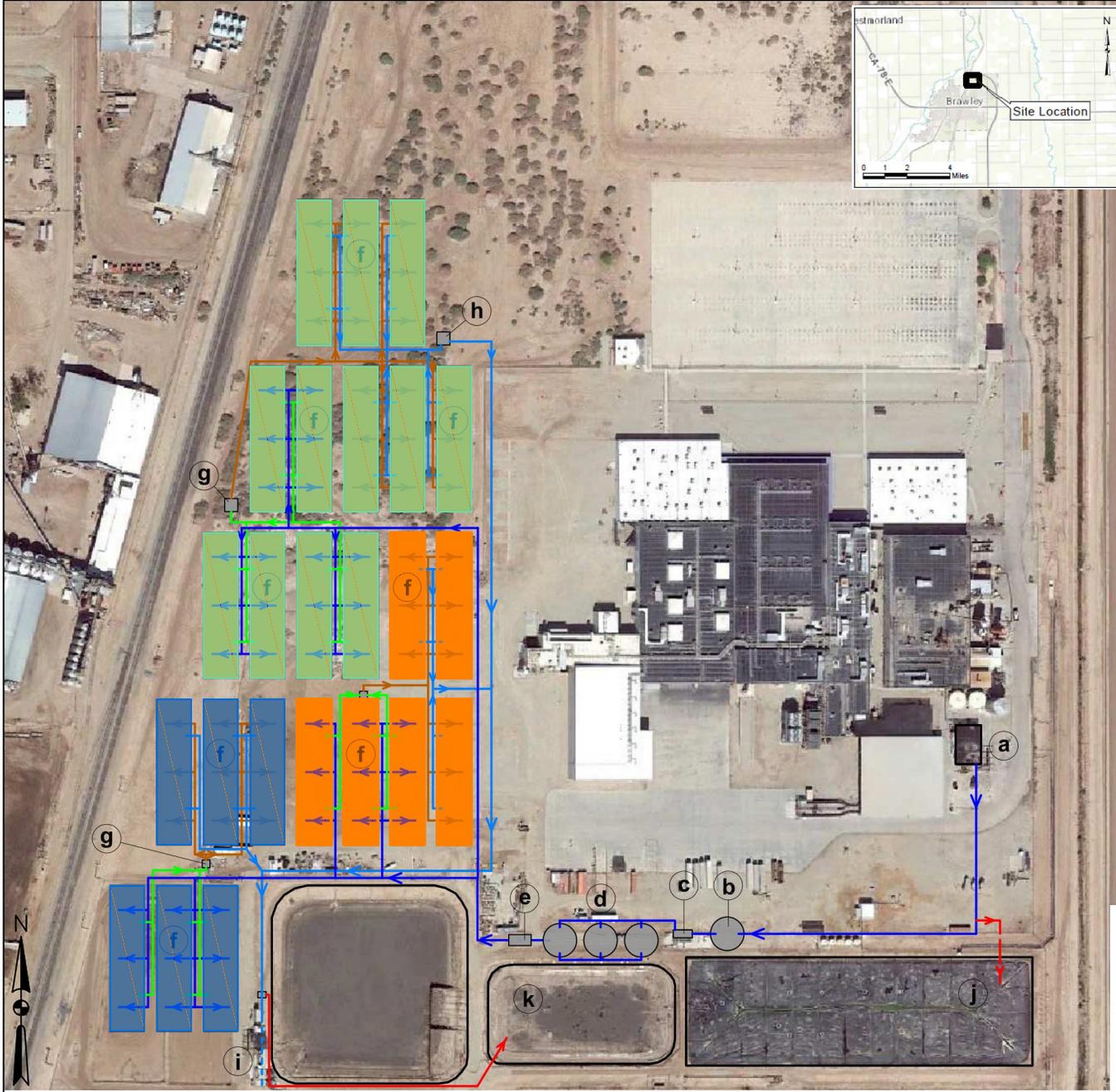
OWB will operate the Facility at a lower capacity than was done by National Beef. During the startup phase, OWB will process 100 to 200 head of cattle per day, ultimately reaching 1,200 head of cattle per day by 2022. OWB estimates that the amount of wastewater it will generate will increase from a maximum of approximately 238,000 gpd in the initial phase of operations to a maximum of 800,000 gpd at full operation, which is less than half the maximum volume generated during National Beef operations.

As proposed, OWB would use the reclaimed wastewater to irrigate an existing farmland on an adjacent parcel comprised of approximately 130 acres, and approximately 10 acres at the Facility to grow Bermuda grass or other fodder crops for cattle feed. A water balance study for the Project calculated that these 140 acres can use approximately 238,000 gpd (Provost and Pritchard 2016). This is what the Regional Water Board staff is recommending to authorize with new WDRs. If the amount of treated wastewater exceeds the irrigation needs of these 140 acres, OWB proposes to discharge excess water that cannot be stored in Pond 2 for future use to the City POTW pursuant to the industrial wastewater discharge permit. OWB is in negotiations with the City about the proposed discharge to the City POTW.

## **1.5.2 Upgraded Wastewater Treatment System**

Once operational, the BioFiltro system would eliminate the need to use the existing ponds for treatment of the wastewater. Ponds 2, 3A, 3B, and 3C would still be part of the system, but they will mainly serve to store treated wastewater before it is used on the 10- and 130-acre sites for irrigation purposes. The BioFiltro system would utilize both physical and biological processes to provide secondary treatment. As shown on the schematic included as **Figure 3**, the majority of the wastewater generated by operations would pass through screens and then be sent to the existing DAF for the removal of solids and grease. These solids separators would be installed to prevent large solids from reaching the BioFiltro system. Other wastewater, such as boiler blowdown, reverse osmosis unit reject, cattle pen mister, and pen wash water would be mixed with the DAF effluent. The wastewater then would enter an equalization tank before entering the intermediate DAF. Following the intermediate DAF, the wastewater would enter a second equalization tank before entering the BioFiltro system.

The BioFiltro system provides physical filtration through system media, which also cultivate a rich biomass of bacteria and worms for biological filtration. Organic solids captured in the process are transferred to secondary vermicomposting bins while the treated water flows to an equalization tank where sensors monitor various parameters, such as pH and flow, and add bacteria as a nutritional supplement. An automated irrigation system disperses this water across the entire surface of the BioFiltro system, and gravity pulls the water through layers of wood shavings and river cobble before final discharge. Additional information on the BioFiltro system is included as **Appendix A**.



- Proposed BioFiltro System Process at Full-Build Out (built in three stages):**
- a. DAF 1&2 (existing)
  - b. Holding tank, 300,000 G
  - c. DAF 3
  - d. Holding tanks, 3 units, 300,000 G each (one added per stage)
  - e. Plumbing
  - f. BioFiltro Stage 1, 6 modules, 200,000 GPD (5-7 weeks to construct)
  - BioFiltro Stage 2, 12 modules, 400,000 GPD (5-7 weeks to construct)
  - BioFiltro Stage 3, 24 modules, 800,000 GPD (10-14 weeks to construct)
  - g. Holding tanks and pumping between 1st and 2nd passing
  - h. Treated water tanks and pumping
  - i. Treated water discharge
  - j. Pond 1: emergency buffer capacity for DAF effluent (existing)
  - k. Pond 2: emergency buffer capacity for treated effluent (existing)

**PIPELINES:**

- Pretreatment and 1st passing pumping
- Drainage from 1st passing and discharge to holding tanks
- 2nd passing pumping
- Drainage from 2nd passing and discharge to pond
- Drainage to emergency holding

**Figure 3**  
*Proposed BioFiltro Wastewater Treatment System Schematic*  
 57 East Shank Road  
 Brawley, Imperial County, California

References:  
 Google Earth

0 200' 400'  
 SCALE: 1" = 400'

The BioFiltro system uses an industry-specific mix of worms and bacteria to achieve maximum reduction efficiencies on parameters such as BOD; total suspended solids (TSS); fats, oils, and grease (FOG); total Nitrogen; total dissolved solids (TDS); ammonia; and phosphorous. The burrowing worms create air channels, digest suspended solids, and can achieve densities of 12,000 worms per cubic yard.

The BioFiltro system is a modular system that is designed based on the influent flow rate and contaminant loading. Each BioFiltro module is a rectangular, concrete box approximately 65 feet wide by 277 feet long and 4 feet tall. OWB proposes to build the 800,000 gpd BioFiltro system in three phases. It is estimated that approximately 3 acres of BioFiltro modules and associated equipment, including a disinfection unit, would be needed to treat 200,000 gpd of wastewater (Phase 1); 5 acres would be needed to treat 400,000 gpd (Phase 2); and 12 acres would be required to treat the proposed flow of 800,000 gpd at full operation (Phase 3). **Figure 3** shows the phased development of the system. The Facility has the necessary acreage for building all the BioFiltro modules to treat up to 800,000 gpd.

The proposed BioFiltro system is designed to be a “double-pass” system in which the wastewater would pass through the system twice for treatment. Following the BioFiltro process, the wastewater would be disinfected as specified within the WDRs using paracetic acid or another alternative to chlorination. The treated water would be piped to Pond 2 for storage and distribution to the agricultural areas.

OWB anticipates that the quality of the reclaimed water after BioFiltro and other treatment would be suitable for discharge to land, as summarized on **Table 1**.

**Table 1 Projected Quality of Discharge of Reclaimed Water to Land**

BOD (5-day)	<100 milligrams per liter (mg/L)
TSS	<100 mg/L
pH	6.0–9.0
TDS	approximately 2,100 mg/L
Ammonia as Nitrogen	30 mg/L
Total Nitrogen	50 mg/L
Oil & Grease	<50 mg/L
Alkalinity	500 mg/L

The land application evaluation completed by Provost and Pritchard (2016) indicates that the BOD loading will be well within the generally acceptable application criteria found in the U.S. Environmental Protection Agency’s *Pollution Abatement in the Fruit and Vegetable Industry*, Volume 3, page 66, Table IV-3.

The treatment process would continue to generate sludges from DAF 1 and DAF 2 that would be collected and sent to the same composting facility used by National Beef. Sludge from DAF 3

would go to the belt filter press, and the dewatered solids would be hauled to a licensed disposal facility based on the characterization of the solids.

Construction of the BioFiltro system would require grading, preparation of the area, and the installation of concrete foundations in accordance with the geotechnical study prepared by ASR Engineering, Inc. (2016). Equipment used in construction would be trucked to and staged on the Facility during each of the three construction phases. **Table 2** lists the type of equipment that would be used during the initial construction and startup process for the first phase of the BioFiltro system and its ancillary facilities (e.g., piping and pumping equipment).

**Table 2 Projected Construction Equipment/Vehicles per Construction Phase**

Type of Equipment	Number	Hours of Operation per Device (Total for Project)
Low-Bed Transport <sup>1</sup>	1	30
Asphalt Paver	1	80
Vibratory Drum Compactor (Roller)	1	160
Man Lift/Extension-Fork	4	240
Concrete Pump	1	480
Excavators	2	240
Drilling Machine	1	80
Pickup Trucks <sup>1</sup>	2	192
Graders	1	80
Cranes	1	30
Front-End Loaders	4	480
Mechanic Truck	1	192
Type of Vehicle	Round Trip Distance Traveled - Paved Road	No. of Round Trips
<i>Mobilization/Demobilization</i>		
Equipment Delivery	630	5
<i>Vehicles Accessing Site</i>		
Class II/V Cement	30	31
Hot Mix Asphalt	30	20

The BioFiltro system and its ancillary facilities would be constructed in accordance with City ordinances. In sum, it is anticipated that construction of the Phase 2 and Phase 3 BioFiltro modules each will require a similar or smaller number of Construction Equipment/Vehicle resources than the Phase 1 module.

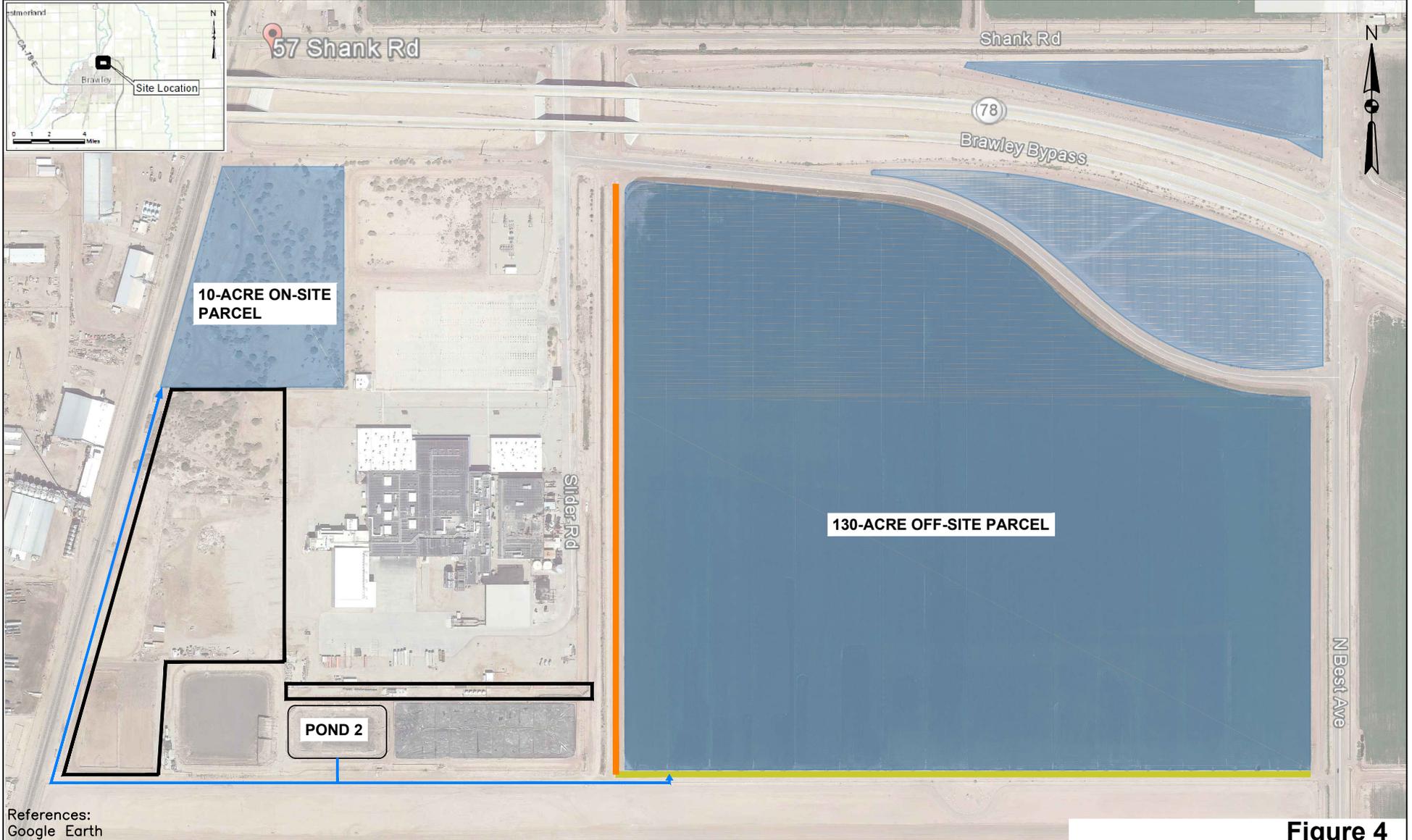
### 1.5.3 Proposed Agricultural Reuse of Treated Water

Following treatment in the BioFiltro system, the reclaimed water would be placed in Pond 2 and or Ponds 3A, 3B and 3C for storage and distribution to the agricultural areas. **Figure 4** shows this distribution system.

The reclaimed water would be pumped from Pond 2 in a new 3-inch, above-grade polyvinyl chloride pipeline. The new pipeline would extend from Pond 2 along the southern side of the site on OWB property, south of the McNeale Drain, ultimately to the existing irrigation canal on the agricultural property. If needed, an encroachment permit would be obtained from the Imperial Irrigation District (IID) and the City for siting the pipeline alignment prior to construction. The adjacent approximately 130-acre agricultural land currently is served by the IID, which provides that site with imported water from the Colorado River through the Oakley Canal, which runs along the western side of the agricultural property. The use of water from the IID canal would be reduced once the BioFiltro system and the reclaimed water pipeline are installed.

The approximately 10-acre onsite area intended for agricultural use is identified in **Figure 4**. Preparation of the area for agriculture would require that it be cleared, laser-graded, and tilled. OWB would install a pipeline from Pond 2 to the area, a distribution system to irrigate the land, and a collection ditch to allow the reuse of any tailwater generated by the irrigation. Although the area is not currently used for agriculture, it was developed for agricultural use during or before the 1940s and through the early 1990s. Therefore, the reuse of the land for agriculture would not result in any significant environmental impacts.

Based on a land-application water balance analysis completed for the Project (Provost & Pritchard 2016), up to 238,000 gpd of reclaimed wastewater can be reused for agricultural purposes on these 140 acres (**Appendix B**). Regional Water Board staff will be recommending to adopt WDRs that would allow only this volume of wastewater to be discharged to these areas. As operations and wastewater generation increase, excess treated wastewater beyond the capacity of this land discharge would be discharged to the City POTW in accordance with the industrial discharge permit from the City.



References:  
Google Earth

**LEGEND**

-  PROPOSED BIOFILTER SYSTEM FOOTPRINT AT FULL BUILD-OUT
-  OAKLEY CANAL
-  PRIVATE IRRIGATION CANAL
-  PROPOSED PIPELINE
-  DISCHARGE TO LAND

0 100' 500'  
  
SCALE: 1" = 500'

**Figure 4**  
*Discharge Distribution Map*  
*57 Shank Road*  
*Brawley, Imperial County, California*

## 1.6 PROPOSED PROJECT SCHEDULE

Table 3 provides a proposed Project schedule.

**Table 3 Proposed Project Schedule**

Proposed Project Element	General Timeframe
Construct the first phase of the BioFiltro system	Winter 2016/2017 (approx. 5-7 weeks)
Begin discharge from the BioFiltro system	Winter 2016
Construct second phase of the BioFiltro System	~Fall 2017 (approx. 5-7 weeks)
Construct third phase of the BioFiltro System	~2019 (approx. 10-14 weeks)
Full operations and discharge	2022

## 1.7 RELATED PERMITS AND REGULATIONS

**Table 4** summarizes both the permits and authorizations that have been issued to allow OWB to restart operations at the Facility as well as those approvals relying on this CEQA review. Activities would be fully compliant with the conditions of each of these permits and authorizations.

**Table 4 Required Permits and Approvals**

Agency	Permit/Approval	Status of Approval
<b>Completed Approvals</b>		
U.S. Environmental Protection Agency	Risk Management Plan (RMP); and Spill Prevention, Control, and Countermeasures (SPCC) Plan	SPCC Plan updated. RMP for ammonia refrigeration is in place.
Department of Toxic Substances Control	Hazardous Materials Business Plan (HMBP), RMP and SPCC Plan	HMBP and SPCC Plan completed. RMP for ammonia refrigeration is in place.
Imperial County Air Pollution Control District	Authority to Construct (ATC) and Permit to Operate	ATC issued 12 January 2016. ATC application under preparation for BioFiltro. Approval expected within 60 days.
City of Brawley Public Works Department	Sanitary Waste Discharge Permit to the POTW	Permit issued on June 1, 2016.
City of Brawley Public Works Department	Industrial User Permit	Permit Issued on June 1, 2016.
City of Brawley Planning Department	Conditional Use Permit (CUP)	Issued September 29, 2000, transferred to OWB on June 15, 2016.
Colorado River Basin Regional Water Quality Control Board	Waste Discharge Requirements (WDRs) and General Storm Water Permit for Industrial Activities	WDRs for the use of the existing wastewater treatment ponds were issued on January 14, 2016. Received coverage under the General Permit for

Agency	Permit/Approval	Status of Approval
		Storm Water Associated with Industrial Activities on May 3, 2016.
City of Brawley Public Works Department	Building Permit for the BioFiltro Wastewater Treatment System	
City of Brawley	Encroachment Permit for pipeline to the 130-acre adjacent farmland	
Imperial Irrigation District	Encroachment permit for pipeline to the 130-acre adjacent farmland	
<b>Approvals Pending CEQA Review</b>		
Colorado River Basin Regional Water Quality Control Board	WDRs  General Storm Water Permit for Construction Activities	WDRs for reuse of up to 238,000 gpd of treated wastewater for agricultural to be scheduled for Board consideration of adoption following Board approval of proposed Initial Study/MND for this Project. OWB is submitting application for coverage under the General Storm Water Permit for Construction Activities on or about November 15, 2016

Prior to initiating the proposed discharge for reclamation purposes, OWB proposes to resume plant operations and discharge process wastewater from the plant to the onsite ponds for evaporation and percolation. This discharge to the ponds is governed by current WDRs Order No. R7-2016-0007 and Time Schedule Order (TSO) R7-2016-0008. The discharge to the on-site ponds for evaporation and percolation is not part of this project, and is therefore not addressed in this MND.

## 2.0 ENVIRONMENTAL CHECKLIST

The environmental factors checked below would be potentially affected by this proposed Project, involving at least one impact that is a “potentially significant impact” as indicated by the checklist on the following pages. The evaluation found no potentially significant impacts that cannot be mitigated to a less-than-significant level.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture and Forest Resources	<input checked="" type="checkbox"/> Air Quality
<input checked="" type="checkbox"/> Biological Resources	<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Geology/ Soils
<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Hazards & Hazardous Materials	<input checked="" type="checkbox"/> Hydrology/ Water Quality
<input type="checkbox"/> Land Use/ Planning	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Noise
<input type="checkbox"/> Population / Housing	<input type="checkbox"/> Public Services	<input type="checkbox"/> Recreation
<input type="checkbox"/> Transportation / Traffic	<input type="checkbox"/> Tribal Cultural Resources	<input type="checkbox"/> Utilities / Service Systems
<input type="checkbox"/> Mandatory Findings of Significance		

### DETERMINATION

On the basis of this initial evaluation:

- I find the proposed project COULD NOT have a significant effect on the environment, and that a NEGATIVE DECLARATION will be prepared;
- I find that although the proposed Project could have a significant effect on the environment, there will not be significant effects in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required; but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

### 3.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

The environmental checklist provides a standard evaluation tool to identify a proposed project's adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

#### 3.1 AESTHETICS

<b>AESTHETICS</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.1.1 Significance Criteria

The Project's impacts on aesthetics are considered significant if:

- The Project would block views from a scenic highway or corridor.
- The Project would adversely affect the visual continuity of the surrounding area.
- The impacts on light and glare would be considered significant if the Project adds lighting which would add glare to residential areas or sensitive receptors.

#### 3.1.2 Environmental Settings and Impacts

The City's MND described the site of the Facility as being "flat-lying, agricultural land devoid of any significant vegetation or habitat areas, scenic or cultural resources" (City of Brawley 2000). That is because the Project Area is bordered on the north and east by the Brawley Bypass and agricultural areas, on the south by the Brawley Municipal Airport, and on the west by railroad tracks and other industrial areas. SR-78/111 Brawley Bypass is not listed as a scenic highway in the California Scenic Highway Mapping System (DOT 2011) and no historic buildings are present in the Project Area. The City's General Plan identifies the topography of the Chocolate Mountains, which is located 12.9 miles northwest of the site, the foothills of the Peninsular Range, the New River riparian corridor, and agricultural open space as scenic resources in the area (City of Brawley 2008). Brawley is located in the Imperial Valley, which is an area

characterized by poor visual quality due to existing dust conditions (California Regional Water Quality Control Board 2014). The Project Area is not part of any scenic view shed.

**Items a), b), c):** Although the proposed Project would include the installation of BioFiltro treatment modules on the western side of the existing buildings at the Facility, the modules would be low to the ground and visibly unobtrusive in light of the existing facilities. Therefore, the Project would not result in impacts to the visual quality in the surrounding area. The modules also would be consistent with other industrial uses at the Facility and in the surrounding area. Similarly, the 130-acre farmland parcel is surrounded to the north, south, and east by other farmland, and irrigation activities do not preclude with scenic vistas. The addition of an agricultural area on the site also would be similar to the surrounding agricultural properties. Because the Project is not in an area characterized as a scenic vista or scenic resource, the Project would not affect the visual character of the area.

**Item d):** The Project would not include the installation of additional exterior lighting or other light or glare sources. Lighting needs during construction will be minimal and temporary, as construction-related activity will occur during daylight hours. The existing Facility approved by the City will continue to operate, but the impacts of that operation were addressed in the MND and the CUP. The proposed reclamation of treated wastewater on the 10-acre and 130-acre sites will not require any additional special lighting, nor generate any additional glare. Based on the foregoing, the Project would not create any environmental impacts from additional light or glare.

### **3.1.3 Mitigation Measures**

Because the Project would have no impacts on aesthetics, no mitigation measures are required.

### **3.1.4 References**

California Regional Water Quality Control Board, Colorado River Basin Region 7. 2014. National Beef Brawley Wastewater Pre-Treatment Facility Closure Project Initial Study/Negative Declaration. September 2014.

City of Brawley. 2000. City of Brawley Mitigated Negative Declaration BP Ventures Beef Processing Facility Conditional Use Permit. July 26, 2000.

California Department of Transportation (DOT). 2011. California Scenic Highway Mapping System. September 7, 2011. Retrieved from:  
[http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/)

City of Brawley. 2008. City of Brawley Final General Plan Update 2030. September 2008.  
[http://www.brawley-ca.gov/cms/kcfinder/upload/files/planning/Brawley\\_General\\_Plan\\_Amendments\\_June\\_2015.pdf](http://www.brawley-ca.gov/cms/kcfinder/upload/files/planning/Brawley_General_Plan_Amendments_June_2015.pdf)

### 3.2 AGRICULTURE AND FOREST RESOURCES

<b>AGRICULTURE AND FOREST RESOURCES</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.2.1 Significance Criteria

Project-related impacts on agricultural resources are considered significant if any of the following conditions are met:

- The Project would conflict with existing zoning or agricultural use or Williamson Act contracts.
- The Project would convert prime farmland, unique farmland, or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to nonagricultural use.
- The Project would involve changes in the existing environment, which, due to their location or nature, could result in conversion of farmland to nonagricultural uses.

#### 3.2.2 Environmental Setting and Impacts

The Project includes the phased installation of new wastewater treatment modules at the Facility, and the piping of the reclaimed water for use on agricultural land to the east and on agricultural land to be created at the Facility. OWB would use the reclaimed wastewater to irrigate an existing approximately 130 acres of farmland on an adjacent parcel, and approximately 10 acres at the Facility, to grow Bermuda grass or other fodder crops for cattle feed.

The area where the Facility was built is zoned M-1 and M-2 for Light and Heavy Manufacturing Industrial Uses in the City General Plan (City of Brawley 2014), and is located on a parcel categorized as “Urban and Built-Up Land” according to the California Department of Conservation (DOC) California Important Farmland Finder (DOC 2014). The proposed 10-acre reclamation site at the Facility is designated as “Other Land” by the DOC, but the area where the Facility was built was originally farmland. Also, the approximately 130-acre parcel adjacent to the Facility is designated as “Farmland of Statewide Importance” (DOC 2014). No forest lands or timberlands are in the vicinity of the site.

Urban and Built-Up Land is typically used for developed purposes, including residential, industrial, commercial, institutional, railroads, and airports, and has a higher building-density-to-land-area ratio. Other Lands are those not included in any other mapping category and can be reserved for vacant, nonagricultural lands surrounded by urban development. Farmland of Statewide Importance is farmland that has soil that is able to sustain long-term agricultural production, but is characteristic of greater slopes than Prime Farmland, and has a reduced ability to store soil moisture (DOC 2016).

**Items a), b), c), d), e):** The Project would not result in the loss of any agricultural or forest resources. No change in land use or zoning is proposed at the Facility or the approximately 130-acre agricultural parcel. Land application of treated wastewater would not result in the conversion of farmland to nonagricultural use. As such, the 130-acre agricultural land would maintain its classification as Farmland of Statewide Importance. Imperial County does not participate in the Williamson Act Program; therefore, there are no Williamson Act contracts in Brawley (DOC 2015). As such, the proposed Project would not impact existing agricultural use zoning or a Williamson Act contract. The Project would have no impacts on other agricultural or forest lands or agricultural activities in the area.

### **3.2.3 Mitigation Measures**

Because the Project would have no impact on agriculture or forest resources, no mitigation measures are required.

### **3.2.4 References**

DOC. 2014. California Important Farmland Finder. Accessed September 1, 2015. Retrieved from: <http://maps.conservation.ca.gov/ciff/ciff.html>.

DOC. 2016. Important Farmland Categories. Accessed September 1, 2016. Retrieved from: [http://www.conservation.ca.gov/dlrp/fmmp/mccu/Pages/map\\_categories.aspx](http://www.conservation.ca.gov/dlrp/fmmp/mccu/Pages/map_categories.aspx)

City of Brawley. 2014. Official Zoning Map. October 2014.

### 3.3 AIR QUALITY

<b>AIR QUALITY</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### 3.3.1 Significance Criteria

This analysis considers to what degree the proposed Project would

- Directly interfere with the attainment of long-term air quality objectives identified by the ICAQMD;
- Contribute pollutants that would violate an existing air quality standard, or contribute to a non-attainment of air quality objectives in the proposed Project's air basin;
- Produce pollutants that would contribute as part of a cumulative effect to non-attainment for any priority pollutant;
- Produce pollutant loading near identified sensitive receptors that would cause locally significant air quality impacts; or
- Release odors that would affect a number of receptors.

The thresholds of significance used by the ICAQMD for CEQA review are given in terms of emissions, as follows:

- Carbon monoxide (CO) – 550 pounds per day;
- Oxides of nitrogen (NO<sub>x</sub>) and reactive organic gases (ROG) – 55 pounds per day; and
- Inhalable particulate matter (PM<sub>10</sub>) and oxides of sulfur (SO<sub>x</sub>) – 150 pounds per day.

Emissions from the proposed Project that would exceed these ICAPCD levels would be considered significant.

Additionally, the wastewater treatment system, storage ponds, and use of treated wastewater on the reclamation areas have potential to emit nuisance odors if not properly operated and maintained. Section 13050 of the California Water Code defines “nuisance” as anything which meets all of the following requirements: (1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; (2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and (3) occurs during, or as a result of, the treatment or disposal of wastes. Odors from the Facility and reclamation areas that would meet these criteria would be considered significant.

### **3.3.2 Environmental Setting and Impacts**

The Project Area is located in Imperial County within the Salton Sea Air Basin (Basin). Under the provisions of the federal Clean Air Act, the Basin has been designated as unclassified/attainment for the National Ambient Air Quality Standards (NAAQS) and State Ambient Air Quality Standards (SAAQS) for carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), and sulfur dioxide (SO<sub>2</sub>). The Project Area is located in a region that has been designated as non-attainment for the ozone (O<sub>3</sub>) 8-hour average NAAQS and SAAQS, nonattainment for particulate matter of 10 micrometers or less (PM<sub>10</sub>) NAAQS and SAAQS, and nonattainment for particulate matter of 2.5 micrometers or less (PM<sub>2.5</sub>)

On January 13, 2016, the Imperial County Air Pollution Control District (ICAPCD) granted OWB an Authority to Construct and Permit to Operate (No. 3089 ATC). The permit establishes conditions under which OWB can operate the processing plant and the existing wastewater treatment system. The permit establishes performance standards; emission limits; and monitoring, testing, recordkeeping, and reporting requirements for the operation of specified equipment; such as the boilers, pond flare, and scrubber equipment used in the processing operations. Because the stationary systems covered by the permit will remain subject to the requirements of the permit, and because the impacts of operating those systems were assessed in the 2000 MND (City of Brawley 2000), they are part of the baseline operation and are not considered here. Only potential emissions from construction or operation of the BioFiltro units, the ponds to be used mainly for storage of wastewater, and from the discharge of wastewater for reclamation purposes to the 10- and 130-acre proposed reclamation areas are relevant to the Project and are evaluated. The air permit provisions regulating the anaerobic pond establish limits on the amount of hydrogen sulfide in the biogas that is sent to the pond flare system. Otherwise, the permit addresses the operation of the pond-based wastewater treatment system by prohibiting its operation from causing a nuisance under ICAPCD Rule 407. Rule 407 prohibits the discharge of air contaminants or other material “which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.” Because the rule does not apply to odors “from agricultural operations necessary for the growing of crops,” the use of the reclaimed water for irrigation is not subject to regulation by the ICAPCD. However, the Regional Water Board has responsibility and jurisdiction to regulate the discharge of treated

wastewater to the proposed agricultural reclamation areas to prevent water quality impacts and nuisance conditions (e.g., objectionable odors) caused or enhanced by the use of treated wastewater on the reclamation areas.

The Rule 407 provisions in the air permit require that a cover be maintained on Pond 1 to avoid fugitive emissions. The provisions also require that discharges from Pond 1 to Pond 2 be biodegraded to a level that does not cause nuisance odors, and that Pond 2 be aerated and maintained so as not to violate Rule 407. Similarly, the Regional Water Board has responsibility and jurisdiction to regulate the discharge of treated and partially treated wastewater to all the onsite ponds to prevent water quality impacts and nuisance conditions.

Pond 1 will not be used for processing wastewater as part of the BioFiltro operation. Pond 2 is designated for treated wastewater storage prior to land application. OWB will have provision for aeration of Pond 2 should it be required. There are existing floating aerators on site that can be used to provide aeration if needed. The design of the BioFiltro system is such that odors are not anticipated. Observations of operating units treating beef processing facility wastewater indicated no odors present. OWB has filed an Authority to Construct (ATC) application with the ICAPCD for the BioFiltro system. Other air districts within California have deemed the BioFiltro process exempt from need an ATC or permit to operate.

**Item a):** The ICAPCD prepares and maintains an Air Quality Attainment Plan (AQAP) and State Implementation Plan to document strategies and measures to attain ambient air quality standards. While the ICAPCD does not have direct authority over land-use decisions, it is recognized that changes in land use and circulation planning can affect air quality.

To comply with the AQAP, the Project must comply with (1) the air quality criteria thresholds on an individual basis; (2) land-use planning strategies in the AQAP; and (3) all applicable rules and regulations. According to the methodology described below under Item b), the Project would be consistent with the AQAP because no individual criteria pollutant thresholds would be exceeded either during construction or operation of the new BioFiltro system. In addition, Phase 1 and Phase 2 construction emissions would only take place for approximately 5 to 7 weeks each, and Phase 3 construction emissions would only take place for approximately 10 to 14 weeks. The BioFiltro system would be replacing an existing wastewater system that has not been shown to violate the air quality criteria listed above. Therefore, the Project would not result in a violation of these thresholds. In addition, the Project would not change existing land use other than using a 10-acre plot at the Facility to grow Bermuda grass or other fodder crops for cattle feed. The proposed use of treated wastewater for irrigation of the 130-acre parcel would just replace Colorado River water with treated wastewater from the Facility and would be done in accordance of typical Imperial Valley agricultural practices. In short, the Project would not conflict with any land use plan, allowable land use, or zoning. Finally, OWB would need to comply with the terms of its air quality permit in operating the BioFiltro system. Because the Project satisfies all three criteria, any impact would be less than significant.

**Item b):** The peak daily emissions from the Facility during the installation of the new wastewater treatment system and getting the 10-acre site ready for reclamation of wastewater should be less than significant. The first and second phases of construction would impact only 3 acres of previously disturbed land, and would require only 5 to 7 weeks of construction each.

The third phase of would impact 6 acres of previously disturbed land and would require 10 to 14 weeks of construction.

Construction activities that would generate air pollutant emissions include heavy construction equipment use and haul truck travel. **Table 5** below summarizes estimated proposed Project emissions. Construction emission factors from off-road heavy equipment were estimated by using the CARB OFFROAD emissions estimation program (included as **Appendix C**, along with default load factors that are presented in CalEEMod program documentation). On-road vehicle emission factors were obtained from EMFAC2011, a CARB web-based program designed to assess emissions from on-road vehicles. The year 2016 was selected for both the OFFROAD and EMFAC models. Inputs for both off-road and on-road vehicles such as miles traveled and number of round trips were based on the description of the proposed Project. On-road vehicles traveling onsite (e.g., pickup trucks and mechanic trucks) were assumed to travel at 10 miles per hour. As shown on **Table 5**, the calculations showed emissions below the ICAPCD Significance Thresholds. Because of this, impacts from construction are considered less than significant.

**Table 5 Air Pollutant Emissions for Heavy Construction Equipment Use and Haul Truck Travel**

<b>Pollutant</b> (pounds per day)	<b>Subtotal, Heavy Construction Equipment Use</b>	<b>Subtotal, Haul Vehicles</b>	<b>TOTAL Emissions</b>	<b>ICAPCD Significance Thresholds</b>
Carbon monoxide	29.70	0.28	29.99	550
Nitrogen oxides	44.35	0.43	44.78	55
PM <sub>10</sub>	2.94	0.06	3.00	150
Sulfur oxides	1.00	3.03	4.03	150
Reactive organic gas	4.50	0.06	4.55	75
Carbon dioxide	4704.97	700.39	5405.37	N/A

Source: Imperial County Air Pollution Control District 2007

The CUP already requires that the dust-control measures in the Imperial County Fugitive Dust Control provisions be implemented during any construction on the site. Those dust-control measures then are part of the requirements for the project’s construction of the BioFiltro units even into subsequent phases which would impact an additional two acres and then an additional seven acres of already disturbed land. The dust-control measures also would limit any potential impacts from land-preparation activities for agricultural uses.

Emissions from operation of the BioFiltro unit also would be subject to regulation under the amended permit. OWB will not operate the Facility at the processing level at which National Beef operated. Consequently, because less beef will be processed (1,200 head of cattle per day

versus the 2,300 by National Beef), the amount of wastewater requiring treatment would also be proportionally less. In addition, there would be fewer mobile sources coming to and leaving the site, and there would be no need to use the flare system to combust biogas. That would reduce emissions from stationary sources on the site as well. All mobile sources would be contained on the site itself and no operations requiring vehicle or mobile source access to the adjacent agricultural land within the broader Project Area are anticipated. As such, while there would be air emissions associated with the Project, for these reasons and because they are below the ICAPCD significance thresholds, the resulting impacts are considered less than significant.

**Item c):** The installation and operation of the BioFiltro system would result in minor emissions that would be far below the baseline emissions from the National Beef operations. As stated in the Environmental Setting and Impacts section above, the pollutants considered as non-attainment in the Basin are O<sub>3</sub> 8-hour average, PM<sub>10</sub>, and PM<sub>2.5</sub>. Because emissions from the BioFiltro units and construction of these units would not exceed any project-specific thresholds, potential air quality impacts of these criteria pollutants are considered to be cumulatively less than significant.

**Item d):** Based on surrounding land uses and development, the Project would not expose “sensitive receptors” to “substantial pollutant concentrations.” “Sensitive receptors” are defined as locations where young children, chronically ill individuals, the elderly, or people who are more sensitive than the general population reside, such as schools, hospitals, nursing homes and daycare centers. The nearest potential sensitive receptor is a residential neighborhood that is more than 0.5 mile south and 0.5 mile west of the site. See **Figure 1**.

Also, no sensitive receptors would be impacted because emissions from the construction and operation of the BioFiltro units would not be substantial. The construction of the wastewater treatment modules and the installation of the pipelines are estimated to generate fewer than 10 truck trips per day, an insubstantial source of diesel emissions and far below the baseline number of vehicle trips each day to the Facility allowed by the CUP and historically taken each day during operations by National Beef.

No sensitive receptors are within 0.5 mile from the site. The Project would result in a limited number of diesel truck trips per day for a short period during construction, and the BioFiltro system would reduce emissions from the pond surfaces and from stationary equipment that would no longer be needed. These factors show that the Project would not be a substantial source of hazardous air pollutants and would have a less-than-significant health risk impact on sensitive receptors.

**Item e):** While operation of the Facility by National Beef using the ponds to treat process wastewater resulted in some odor and nuisance complaints, the last odor violation was issued in November 2013. The installation of the BioFiltro system would eliminate the need to use the ponds for wastewater treatment and should result in no further odor concerns within or surrounding the Project Area. Instead, the wastewater would be treated in concrete containment units in which biological processes would lower the concentrations of BOD and other constituents without odorous air emissions around the treatment system or in the discharge locations. Pond 1 would continue to be covered until decommissioned, and Ponds 2 and 3 would receive only treated wastewater for storage and distribution, not partially treated wastewater. OWB is in the process of obtaining a modification to the existing permit from ICAPCD

authorizing the construction and operation of the BioFiltro system. The operation of the BioFiltro system would remain subject to the Rule 407 provisions. The permit also would limit emissions under Rule 407.

Also, the air emissions associated with the Project during construction would be capable of producing a noticeable odor; however, these emissions associated with construction would be temporary, contained completely at the Facility, and far from any sensitive receptors. The processes used in the BioFiltro system would not generate odors; thus, the Project impacts would be less than significant.

The foregoing notwithstanding, operation and maintenance of wastewater treatment and disposal facilities (i.e., the BioFiltro, storage ponds, and 10- and 130-acre reclamation areas) inherently have significant nuisance potential as defined by the California Water Code if not properly operated and maintained. Accordingly, the Regional Water Board WDRs for the Project must contain measures (e.g., provisions/requirements) to prevent nuisance (e.g., odors and vectors). By implementing mitigation measures MM-AIR-1, 2, 3, 4, and 5, below, objectionable odors would be minimized and the potential impact would be contained. Implementation of these measures would reduce impacts to nearby receptors to a less-than-significant level by containing, treating, and monitoring emissions and odors.

### **3.3.3 Mitigation Measures**

Because the Project could have significant adverse impacts on air quality by being a source of objectionable odors if not properly operated and maintained, the Regional Water Board WDRs should contain the following requirement as mitigating measures to prevent odor nuisance conditions:

**MM-AIR-1:** Prescribe minimum dissolved oxygen requirements for the upper layer of the storage ponds to ensure the treated wastewater in them remains aerobic and is not a source of nuisance odors;

**MM-AIR-2:** Prescribe hydraulic and organic loading rates (i.e., inches of water and pounds of BOD/acre) for the reclamation areas to ensure the reclamation areas are not hydraulically and organically overloaded and ensure that reclamation takes place at agronomic rates;

**MM-AIR-3:** Prescribe that the treatment, storage, and disposal facilities be at all times properly operated and maintained and be supervised by a Wastewater Treatment Operator with experience in the operation and maintenance of industrial wastewater treatment facilities and certified by the State Water Resources Control Board;

**MM-AIR-4:** Prescribe that neither the treatment, storage, nor the disposal of wastewater from the Facility create a condition of nuisance as defined by the California Water Code; and

**MM-AIR-5:** Prescribe a monitoring and reporting program for the treatment, storage, and disposal of the wastewater, including monitoring dissolved oxygen in the ponds and the application rates in the disposal area.

### **3.3.4 References**

Imperial County Air Pollution Control District. 2007. CEQA Air Quality Handbook. November 2007

### 3.4 BIOLOGICAL RESOURCES

<b>BIOLOGICAL RESOURCES</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.4.1 Significance Criteria

The impacts on biological resources are considered significant if any of the following criteria apply:

- The Project results in a loss of plant communities or animal habitat considered to be rare, Threatened, or endangered by federal, state, or local agencies.
- The Project interferes substantially with the movement of any resident or migratory wildlife species.

- The Project adversely affects aquatic communities through construction or operation of the project.

### 3.4.2 Environmental Setting and Impacts

The proposed BioFiltro system would be constructed and operated at the Facility. The Facility is currently developed and zoned for industrial use and does not contain any natural water features or ditches, trees, or rock outcroppings. Ponds associated with the existing wastewater treatment system, and onsite detention basins for storm water control, would continue to be used by the proposed Project. Existing ground cover at the Facility is either bare or covered by sparse weeds. There is no natural wildlife habitat at the Facility or the 130-acre farmland. The location where the treatment system would be installed has been devoid of vegetation since the area of the Facility first was developed for agricultural use in the 1940s, and subsequently has been used for the industrial processing activities. The 10 acres at the Facility where water is proposed for additional agricultural use is also former agricultural land. The area has not been used for agricultural purposes since the existing facility began operating in 2001, and the previous use of the area removed the native vegetation. The adjacent approximately 130-acre, offsite parcel within the full Project Area is currently cultivated and would continue to be used for agricultural purposes.

The site provides limited opportunities for wildlife movement. The site does not occur within an Essential Connectivity Area or Missing Linkage (California Department of Fish and Wildlife [CDFW] Biogeographic Information & Observation System, 2016b). Surrounding land use includes agricultural development and industrial uses, which would likely preclude terrestrial wildlife movement in the area.

Reclaimed wastewater would be used to irrigate the 10 onsite acres plus the existing farmland on an adjacent parcel comprised of approximately 130 acres, to grow Bermuda grass or other fodder crops for cattle feed. The final alignment of the pipeline to the adjacent property has not been identified, but it is assumed that it would run from Pond 2 along the southern side of the site on OWB property and then through an area to be identified in coordination with the IID and the City to the existing Oakley irrigation canal, which runs along the western side of the agricultural property. The adjacent agricultural land currently is served by the IID, which provides imported water from the Colorado River through the Oakley Canal. The use of water from the IID canal would be discontinued once the BioFiltro system and the reclaimed water pipeline are installed.

Queries for special-status species in the vicinity of the site, using publicly available databases from the U.S. Fish and Wildlife Service (USFWS), CDFW, and California Native Plant Society, were completed in August 2016. Query results are included in **Appendix D** including a summary of the likelihood of these species to occur in the Project Area is provided in Table D-1.

There are no known occurrences of special-status species within 1 mile of the Project Area, and the majority of listed species require habitats that do not exist on the site. However, burrowing owls are abundant in the county and have been found in human altered habitats despite conditions being less than optimal for nesting. The approximately 10-acres onsite proposed for irrigation and agricultural purposes, is currently fallow, may provide potential, though marginal, habitat for burrowing owls. Some wildlife may forage on the adjacent agricultural parcel;

however, proposed Project activities would not alter land use or habitat conditions of adjacent land.

**Items a), b), c), d), e), f):** The Project would not result in any changes in habitat conditions of adjacent land or elimination of any natural wildlife habitat on the Facility or within the greater Project Area. The Project would not result in the addition or the elimination of any water sources that could be used by animals or migratory fowl. The Project Area is located in an industrial area, bound to the east by farmland, and is adjacent to a municipal airport and a railroad line. There are no identified wildlife movement corridors. Therefore, the Project would not impact any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

There are no known occurrences of special-status species within 1 mile of the Project area, and the majority of listed species require habitats that do not exist in the Project Area. However, burrowing owls are abundant in the county and have been found in human altered habitats despite conditions being less than optimal for nesting. Therefore, to avoid and minimize impacts to burrowing owls and other protected birds, mitigation measure MM BIO-1, below, will be implemented. Implementation of this measure would reduce impacts to candidate, sensitive, or special-status species to a less-than-significant level by ensuring no impacts through full avoidance, restoration, or compensatory mitigation.

Should the discharge location at the Oakley Canal be constructed in the jurisdiction of the Clean Water Act, CDFW, USFWS, or the Regional Water Board, OWB would design the project to avoid any net loss of protected waters or sensitive communities through impact avoidance, impact minimization, restoration, and/or compensatory mitigation, as determined in Clean Water Act Section 404 and 401 permits and/or the 1602 Streambed Alteration Agreement. Evidence of compliance with this mitigation measure would be provided prior to construction activities for the proposed Project. Implementation of these procedures would ensure no net loss of protected waters or sensitive communities through full avoidance, restoration, or compensatory mitigation.

Development of the Project would be required to be consistent with all local policies and ordinances protecting biological resources. Therefore, no impact would occur with regard to consistency with local ordinances or policies protecting biological resources.

### **3.4.3 Mitigation Measures**

#### **MM BIO-1: Conduct pre-disturbance assessment for active nests and burrows:**

If grading and/or ground-disturbance activities associated with construction of the BioFiltro system and/or associated piping would occur during the nesting season for migratory birds (March 15–August 15) or during the nesting period for burrowing owls (February 1–August 31), a pre-disturbance assessment should be conducted by a qualified biologist to identify any active nests or burrows in the proposed impact area. The survey should occur within 14 days of activity initiation. If active nests or burrows are found, avoidance, minimization, and mitigation methodologies will be followed as outlined by CDFW.

### 3.4.4 References

CDFW. 2016. BIOS 5 Viewer. Sacramento: CDFW Biogeographic Data Branch.  
<https://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>.

### 3.5 CULTURAL RESOURCES

<b>CULTURAL RESOURCES</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.5.1 Significance Criteria

Impacts to cultural resources are considered significant if:

- The Project would result in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group.
- Unique paleontological resources are present that could be disturbed by construction of the proposed Project.
- The Project would disturb human remains.

#### 3.5.2 Environmental Setting and Impacts

**Items a), b):** The Project Area is not located in the areas identified as Important Archaeological Areas in the City of Brawley’s General Plan (2008). The Environmental Impact Report (EIR) for the Imperial County General Plan (n.d.) designates the Project Area and surrounding region as having “zero to rare” sensitivity for cultural resources. The EIR also indicates significant impacts to prehistoric sites are not anticipated “in areas that have been or currently are utilized for agriculture, residential, or other types of intensive land use.” The Project Area and its vicinity are located in a region currently and previously used for agriculture or industrial development.

CEQA Guidelines Section 15064.5 states that resources listed in the California Register of Historical Resources or in a local register of historical resources are considered “historical resources.” Additionally, CEQA Guidelines Section 15064.5(a)(3) states that “generally, a resource shall be considered by the lead agency to be ‘historically significant’ if the resource meets the criteria for listing in the California Register of Historical Resources including the following:

- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.

- Is associated with the lives of persons important in our past.
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- Has yielded or may be likely to yield information important in prehistory or history.

The BioFiltro system would be installed in an area developed as agricultural land in the 1940s, which now is an existing industrial processing facility. The area where the treatment modules and pipelines would be installed and the 10-acre site have been used for various agricultural and industrial purposes for decades. No cultural resources were discovered during past construction projects and any archaeological or paleontological resources that might have been present prior to development likely would have been damaged by those past disturbances.

The proposed Project would not cause an adverse change in the significance of a resource listed in the California Register of Historical Resources or in a local register of historical resources, or cause substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5.

There are no known prehistoric or historic structures or objects within the Project Area. The proposed Project would be located within the confines of the existing Facility and adjacent parcel, referred to in this assessment as the Project Area, and would not affect structures in the surrounding area. Previous construction activities at the Facility have not uncovered any archaeological or cultural resources. The adjacent 130-acre parcel has been farmed for over 50 years also and no archeological or cultural resources have been found there either. Further, there are no existing structures at the Facility or the 130-acre site that are considered architecturally or historically significant by Imperial County or City of Brawley. Therefore, the Project would not result in substantial adverse changes in the significance of an archaeological or historic resource.

**Item c):** The Project Area lies within the footprint of the ancient Lake Cahuilla and is underlain by sediments mapped as Quaternary lake deposits (ASR Engineering, Inc. 2016), which have a high potential of containing fossils. Project-related soil disturbance activities would include grading the shallow subsurface soils, compacting of the system parcel for construction, installation of the BioFiltro system, and installation of an irrigation and drain system onsite. The treated wastewater would be deposited in an existing irrigation system on the adjacent 130-acre agricultural parcel and within 10 acres at the Facility. Given the shallow depth of soil disturbance activities, it is unlikely that unique paleontological resources or geological features would be encountered during proposed construction or that a unique paleontological resource or geological feature would be disturbed by Project implementation. Therefore, the proposed Project would result in a less-than-significant impact related to paleontological resources or unique geological features.

**Item d):** There are no cemeteries, graves, or burials identified within the Project Area and no areas identified as Important Archaeological Areas in the City of Brawley’s General Plan (2008). The presence of human remains or human burial sites was not encountered during previous construction activities at the Facility, nor have human remains or burial sites have been found during farming operations at the adjacent 130-acre parcel. There would not be any subsurface disturbance associated with the proposed Project; therefore, it is unlikely that the proposed Project would disturb any human remains. As required by state law, if human remains are

unearthed, OWB would follow the guidance of California Health and Safety Code Section 7050.5 and immediately notify the county coroner who would investigate the remains. No further disturbance would occur until the county coroner has made the necessary findings concerning the origin and disposition of these remains. The Native American Heritage Commission would be notified if the remains are determined to be of Native American descent.

### **3.5.3 Mitigation Measures**

Because the Project would have no significant adverse impacts on cultural resources, no mitigation measures are required.

### **3.5.4 References**

City of Brawley. 2008. *City of Brawley, Final General Plan 2030*. Prepared by ICF Jones & Stokes, San Diego, California, for the City of Brawley, California.

ASR Engineering, Inc. 2016. Geotechnical Engineering Investigation, One World Beef BioFiltro, 57 Shank Road, Brawley, California. 25 August.

### 3.6 GEOLOGY AND SOILS

<b>GEOLOGY AND SOILS</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.6.1 Significance Criteria

The impacts on the geological environment will be considered significant if any of the following criteria apply:

- Impacts to people and structures from seismic hazards, including earthquake surface rupture, ground shaking, liquefaction or landslides, would be triggered by or aggravated by the Project.
- Project-related topographic alterations would result in substantial soil erosion or the loss of large amounts of topsoil.

- The Project is constructed in an area with unstable geologic conditions such that the presence of Project-related features and operations would result in potential risks to people on or offsite, or otherwise cause geologic conditions to become unstable.
- Project-related wastewater disposal cannot be accommodated due to unfavorable subsurface conditions.

### 3.6.2 Environmental Setting and Impacts

The Project Area is located within the Salton Trough region of the Colorado Desert Province. The Salton Trough is a geologic and topographic structural depression created by regional faulting that is bounded on the east and northeast by the San Andreas Fault and on the west by the San Jacinto fault zone. The Project Area is not located with a current designated Alquist-Priolo Earthquake Fault Zone. The Imperial Fault and Brawley Fault, located approximately 4 miles to the southwest and southeast of the site, respectively, are the closest known earthquake faults as delineated on the Alquist-Priolo Earthquake Fault Zoning Map.

The Project Area is within the footprint of the ancient Lake Cahuilla and is underlain by sediments mapped as Quaternary lake deposits. OWB commissioned a geotechnical engineering study to evaluate geologic conditions at the site and identify “preliminary geotechnical engineering recommendations for site preparation, earthwork procedures and foundation and slab system design parameters” for the installation of the BioFiltro modules planned as part of the Project. Sediments encountered at the site during these geotechnical investigation activities consisted of stiff to very stiff silty clay, to the maximum explored depth of 50 feet below ground surface (bgs). Depth to first groundwater beneath the site has been measured at approximately 20 feet bgs. The study concluded that (1) the fault rupture hazard at the Facility was low; (2) liquefaction is not a likely geologic hazard at the Facility; and (3) seismic settlement is not expected to represent a “significant geologic hazard” provided that the construction recommendations in the report were followed (ASR Engineering, Inc. 2016). Conditions of the broader Project Area are presumed to be similar.

The 2000 MND identified the potential for seismic impacts to the then-proposed National Beef facility due to its location in an area of known seismic activity. Accordingly, to reduce the potential for seismic-related impacts associated with the National Beef project, the 2000 MND mitigation measures and the CUP specified that (1) all site preparation and construction should comply with the structural design provisions for Seismic Zone 4 in the Uniform Building Code; (2) all excavations should include shoring or slope inclinations in conformance with California Occupational Safety and Health Administration (OSHA) regulations for Type B soils; and (3) all pavements should be designed to meet California Department of Transportation (Caltrans) or other acceptable standards.

**Item a):** Installation of the BioFiltro modules must comply with the conditions of the CUP concerning seismic design, and would implement the recommendations in the ASR Engineering, Inc., report (2016). Consequently, the Project would not expose people or structures to any substantial adverse effects, including impacts from the risk of loss, injury, or death involving the rupture of an earthquake fault, seismic ground-shaking, or seismic-related ground failure.

**Item b):** The proposed Project would include ground disturbance, primarily the grading of the site before the installation of the BioFiltro modules, and the grading of the new 10-acre

agricultural area at the Facility. The development of the agricultural area would be undertaken with an effort to retain topsoil, which is beneficial for agricultural use. The proposed Project-related grading activity would be conducted in accordance with the requirements of a grading permit secured from the City prior to construction; such requirements include erosion controls as a standard practice. OWB will also have to comply with the State Water Resources Control Board General Permit for Storm Water Discharges Associated with Construction Activities (Order No. 2009-0009-DWQ), NPDES CAS000002) for the construction of BioFiltro. The Permit requires implementation of best management practices to ensure storm water during construction activities do not adversely impact water quality. Storm water generated at the Facility would be retained in onsite detention basins and the construction and operation activities would comply with the site's Storm Water Pollution Prevention Plan (SWPPP), which includes erosion and sediment controls. Consequently, the construction and operation would not result in erosion or loss of topsoil that would be considered significant.

**Items c), d):** The Project Area is located outside geologic hazard zones related to soil stability. Given the nature of the soils and topography in the Project Area, there is a low susceptibility for liquefaction, lateral spreading, or landslides. Implementation of the proposed Project would involve ground disturbance and the removal of soils and therefore could disturb expansive soil. The proposed Project would be completed and operated in accordance with the CUP and other existing regulatory requirements, and would incorporate the geotechnical engineering recommendations from the ASR Engineering, Inc., report (2016). Therefore, the proposed Project would result in less-than-significant impacts from subsidence or expansive soil.

**Item e):** The Project would involve the discharge of reclaimed water to soils for agricultural purposes. This discharge does not constitute an alternative wastewater system involving discharge to soils, because the treatment of this water would be completed prior to discharge. New septic tanks or alternative wastewater systems that would release directly to soils would not be installed as part of the proposed Project.

### **3.6.3 Mitigation Measures**

Because the proposed Project would have no significant adverse impacts related to geology and soils, no mitigation measures are required.

### **3.6.4 References**

ASR Engineering, Inc. 2016. Geotechnical Engineering Investigation, One World Beef BioFiltro, 57 Shank Road, Brawley, California. 25 August.

Alquist-Priolo Earthquake Fault Zoning Map

### 3.7 GREENHOUSE GAS EMISSIONS

<b>GREENHOUSE GAS EMISSIONS</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.7.1 Significance Criteria

Impacts from the proposed Project are considered significant if:

- The Project would result in greenhouse gas (GHG) emissions that conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

#### 3.7.2 Environmental Settings and Impacts

GHGs are present in the atmosphere naturally and are released by natural sources or formed from secondary reactions taking place in the atmosphere. The following gases are the principal contributors to human-induced global climate change: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). These gases vary in terms of global warming potential (GWP), which compares the ability of each GHG to trap heat in the atmosphere relative to CO<sub>2</sub>, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the heat trapped by one unit mass of CO<sub>2</sub> over a specified time period. GHG emissions are typically measured in terms of pounds or tons of “CO<sub>2</sub> equivalents” (CO<sub>2</sub>e). For example, SF<sub>6</sub> is 22,800 times more potent at contributing to global warming than CO<sub>2</sub>.

**Item a):** In assessing impacts from the installation and operation of the BioFiltro system, the question is whether the new treatment system would result in additional emissions of GHGs above the baseline represented by emissions from activities approved by the CUP and those actually carried out by National Beef. As stated previously, the BioFiltro system would replace the existing pond-based wastewater treatment system. The operation of the new system would not result in additional processing operations or the generation of wastewater needing treatment that would be equal to or greater than the levels during National Beef’s operating period.

The installation of the BioFiltro system also would eliminate the need to run a complete aeration system for Pond 2 and the pond flare system to dispose of biogas. That change would reduce the amount of power used to treat the wastewater and eliminate emissions from the flare combustion system, both main sources of GHG emissions from the Facility. Because the overall beef-processing operation of the Facility would be reduced from National Beef levels as well, fewer

vehicles would come to the site, further reducing GHG emissions. No vehicles would be expected to access other parts of the Project Area, such as the adjacent agricultural parcel.

The ICAPCD does not have a daily or annual threshold for CO<sub>2</sub> emissions. However, construction activities would only be temporary, occurring over a period of approximately 5 to 7 weeks for Phases 1 and 2, and approximately 10 to 14 weeks for Phase 3. For all these reasons, the Project would not result in increased GHG emissions from direct or indirect sources that would have a significant effect on the environment.

**Item b):** CARB has designed a California Cap-and-Trade program that is enforceable and meets the requirements of AB32. The program began on January 1, 2012, with an enforceable compliance obligation beginning with the 2013 GHG emissions inventory. Because the Project would result in a decrease in the amount of GHG emissions, it would not conflict with AB32, the applicable GHG reduction plan, policy, or the regulations that have been adopted to implement AB32.

ICAPCD Rule 903 establishes a screening threshold of 20,000 metric tonnes per year (MT/yr) of CO<sub>2</sub>e on all permitted sources. Based on previous modeling by National Beef (California Regional Water Quality Control Board 2014), even at an operating rate of 600,000 gpd, the pond system generated only 12,365 MT/yr CO<sub>2</sub>e conservatively using the worst-case day as the measure for the entire year. Because the treatment process within the BioFiltro system would occur in concrete containers and would be at a lower level until full build-out, the estimated GHG emissions from the project would demonstrably be less and consequently would be less than significant.

The City of Brawley General Plan also strives to reduce GHG emissions to 1990 emissions levels by 2020, in line with AB32. As part of this, the City prepared a draft Climate Action Plan in July 2015 that includes such measures as use of upgraded and maintained equipment and replacements for off-road vehicles. The Project would comply with such measures. Based on the limited equipment and short duration of the construction period, emissions from off-road construction equipment and on-road haul trucks would be considered less than significant, as analyzed under Item a), and would not violate an applicable plan adopted for the purpose of reducing the GHG emissions, meaning no impact on these adopted plans.

### **3.7.3 Mitigation Measures**

Because the Project would create no significant adverse impacts due to GHG emissions, no mitigation measures are required.

### **3.7.4 References**

California Regional Water Quality Control Board, Colorado River Basin Region 7. 2014. National Beef Brawley Wastewater Pre-Treatment Facility Closure Project Initial Study/Negative Declaration. September 2014.

City of Brawley. 2015. City of Brawley Draft Climate Action Plan – A Plan to Reduce Greenhouse Gas Emissions. July 2015.

City of Brawley. 2008. City of Brawley Final General Plan Update 2030. September 2008.  
[http://www.brawley-  
ca.gov/cms/kcfinder/upload/files/planning/Brawley\\_General\\_Plan\\_Amendments\\_June\\_2015.pdf](http://www.brawley-ca.gov/cms/kcfinder/upload/files/planning/Brawley_General_Plan_Amendments_June_2015.pdf)

### 3.8 HAZARDS AND HAZARDOUS MATERIALS

<b>HAZARDS AND HAZARDOUS MATERIALS</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.8.1 Significance Criteria

The impacts associated with hazards will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation related to management, use, and disposal of hazardous materials.

- Non-conformance with National Fire Protection Association standards related to hazardous materials management and emergency response.
- Non-conformance with regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Hazardous materials (in solid, liquid, dust or vapor phase) at hazardous concentrations present less than 0.25 mile from a school.
- If historical operations within the Project Area or adjacent properties resulted in chemical releases, worker or offsite receptor exposures to soil, soil gas, or groundwater containing chemicals at hazardous concentrations are enhanced during Project construction or operation.
- If historical operations within the Project Area or adjacent properties resulted in chemical releases, the release of those materials such that migration of the contaminants (either onsite or offsite) is enhanced during Project construction or operation.
- Aggravated safety hazards associated with air traffic, impairment of emergency response actions, or wildland fires.

### 3.8.2 Environmental Settings and Impacts

The Project Area, which is zoned for industrial land use (City of Brawley 2014), is a developed property with existing industrial structures; previous site operations were similar to those proposed for the Project. The Project Area is surrounded on the north, east, and west by agricultural land. The site is currently listed as a land disposal site with an open status on the California State Water Resources Control Board GeoTracker database (SWRCB 2016). Land disposal sites are sites that are regulated due to waste discharge to land for treatment, storage, and disposal in waste management units, which include waste piles, surface impoundments, and landfills. The proposed Project operations are consistent with this designation. The Project Area is located within the Airport Land Use Plan footprint for the Brawley Municipal Airport, which abuts the site to the south.

**Items a), b):** Some hazardous materials, such as gasoline and diesel fuels, and small volumes of oils and lubricants, would be used during construction phase, for the construction of the BioFiltro system, and for operation of construction vehicles and equipment. These materials would be used and stored within the site boundary. As outlined in the proposed Project's SWPPP and draft SPCC Plan (OWB 2016a; 2016b), procedures to reduce the potential for chemical releases, including fuel oil releases from construction equipment, would be implemented during construction activities. Employees working with hazardous materials would be properly trained in the use and handling of hazardous materials. The design of the wastewater treatment system and discharge of reclaimed water in accordance with permit requirements would reduce the potential for the discharge to adversely affect water quality. As described above, the BioFiltro system would treat the wastewater using a physical and biological treatment system, and would not use chemicals; however, chemicals used for disinfection of the treated wastewater prior to application, as may be required by the Regional Water Board, would be transported to the site by appropriately permitted vehicles and properly stored on Site. Therefore, proposed Project-related

impacts associated with the transport, use, or disposal of hazardous materials would be less than significant.

**Item c):** The site and overall Project Area are not located within 0.25 mile of an existing or proposed school site; therefore, the Project would not impact any school sites resulting from the handling of hazardous materials or wastes or emissions of hazardous air contaminants.

**Item d):** The Project Area is not located on a property identified on the list compiled by the Department of Toxic Substances Control pursuant to Government Code Section 65962.5.

**Items e), f):** The Project Area is immediately north of the Brawley Municipal Airport, but operations on the site are in compliance with the Specific Plan for the area and the CUP issued by the City. The 2000 MND for the National Beef facility considered, and did not identify, any air traffic-related impacts that would result in a safety hazard for people residing or working at the Facility (City of Brawley 2000). No changes to airport noise or activities, safety standards, or related hazards have been identified since that time. Therefore, the Project would result in no impact on safety hazards for people residing or working within 2 miles of the airport.

**Item g):** The installation and operation of the wastewater treatment system and infrastructure for the use of the reclaimed water would occur on private land within the site. Project-related traffic would be limited, and would not require any public road closures. Therefore, the Project would not impair the implementation of or physically interfere with emergency response plans or emergency evacuation plans.

**Item h):** The installation and operation of the wastewater treatment system and infrastructure for the use of the reclaimed water would not increase the existing risk of fire hazards in the area, which generally is devoid of flammable brush, grass, and trees. The Project would not expose people or structures to wildland fires, and it is not located in an area where residences are mixed with wildlands. No substantial vegetation exists within the site or on the adjacent agricultural land. Therefore, the Project would have no impact related to wildland fires.

### **3.8.3 Mitigation Measures**

Because the Project would create no significant adverse impacts due to hazardous materials or wildfires, no mitigation measures are required.

### **3.8.4 References**

City of Brawley. 2014. Official Zoning Map. October 2014.

California State Water Resources Control Board (SWRCB). 2016. Geotracker site for National Beef CA LP. Accessed September 6, 2016. Retrieved from:  
[https://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T10000005237](https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000005237)

City of Brawley. 2000. City of Brawley Mitigated Negative Declaration BP Ventures Beef Processing Facility Conditional Use Permit. July 26, 2000.

OWB Packers, LLC. 2016a. Storm Water Pollution Prevention Plan and Monitoring Implementation Plan. April 2016.

OWB Packers, LLC. 2016b. Spill Prevention Control and Countermeasure Plan. May 2016.

### 3.9 HYDROLOGY AND WATER QUALITY

<b>HYDROLOGY AND WATER QUALITY</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.9.1 Significance Criteria

Potential impacts on water resources will be considered significant if any of the following

criteria apply:

- The Project would cause degradation or depletion of groundwater resources substantially affecting current or future uses.
- The Project would cause the degradation of surface water substantially affecting current or future uses.
- The Project would result in a violation of Waste Discharge Requirements, including requirements for the proposed discharge to the reclamation area and storm water NPDES permit requirements for construction activities.
- The Project would result in substantial increases in the area of impervious surfaces, interfering with groundwater recharge.
- The amount of surface water would be increased or drainage patterns in the Project Area would be substantially altered, resulting in increased erosion, siltation, and/or flooding potential.
- The Project would result in alterations to the course or flow of floodwaters.
- The Project would place housing or other structures within the 100-year flood hazard area, or otherwise expose people to risks due to flooding, including failure of a levee or dam, seiche, tsunami, or mudflow.

### 3.9.2 Environmental Impacts

The Project Area is located within the Brawley watershed, which is contained within the Imperial Valley groundwater basin. Sources of groundwater recharge include percolation of irrigation water/return flows, rainfall, and surface runoff; underflow into the basin; and seepage from unlined canals (ICF International 2010). The Imperial Valley region is arid and average annual precipitation in this area ranges between 3 and 4 inches per year (ICF Jones & Stokes 2008). Depth to first encountered groundwater beneath the Facility has been measured at approximately 20 feet bgs (ASR Engineering, Inc. 2016). Areal groundwater within the influence of the Project Area is not used for municipal or domestic supply.

The nearest surface water body to the Project Area is the McNeale Drain, located immediately east of the Facility. The McNeale Drain is a part of the irrigation drain system that serves agricultural lands in the area. The McNeale Drain eventually drains into the New River, located approximately 0.70 mile northwest of the Facility. The New River flows north and northwest, where it eventually drains into the Salton Sea, approximately 13 miles northwest of the Facility. The New River transports agricultural irrigation drainage, runoff, and a minor amount of treated municipal and industrial wastewaters from the Imperial Valley to the Salton Sea (ICF International 2010).

**Item a):** The Project would adhere to state and local regulations that would effectively reduce the potential for the Project construction activities to violate water quality standards and WDRs. Specifically, construction activities would be required to follow specifications in the following:

- A Project-specific grading permit obtained from the City.

- OWB must apply to the Regional Water Board and obtain coverage under the State Water Resources Control Board Order No. 2009-0009-DWQ for its construction activities and prepare a Project-specific SWPPP, which includes a detailed listing of best management practices (BMPs) and standard procedures that would be employed during construction activities and facility operation for protection of surface waters.
- The City’s storm water management program, which requires that commercial businesses, industrial operations, and construction activities include proof of compliance with the Construction General Permit, and requiring implementation of BMPs that reduce pollutants in storm water runoff (City of Brawley 2008).

The Water Quality Control Plan for the Colorado River Basin (hereinafter Basin Plan), which was adopted on November 17, 1993, and amended on November 16, 2012, designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan (including amendments adopted by the Colorado River Basin Water Board to date). In addition, State Water Resources Control Board (State Water Board) Resolution 88-63 requires that, with certain exceptions, all nine regional water boards assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in their Basin Plans. The proposed discharge from the Facility to the unlined ponds is within the Imperial Hydrologic Unit, whose beneficial uses are designated as municipal and industrial supply. However, first-encountered groundwater beneath the site is not currently used for municipal purposes because of its relatively high salt concentrations.

Also, State Water Board Resolution 68-16 (“Policy with Respect to Maintaining High Quality Waters of the State”) (hereinafter Resolution 68-16) requires a regional water board in regulating the discharge of waste to maintain high quality waters of the state (i.e., background water quality) until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than as described in plans and policies (e.g., violation of any water quality objective).

Constituents of concern (COCs) found in the proposed discharge to the ponds and the 10- and 130-acre parcels that threaten groundwater quality include biochemical oxygen demand (BOD), total nitrogen, ammonia, oil and grease, and pathogen-indicator bacteria. These COCs have the potential to degrade groundwater quality. As noted previously, wastewater would be treated by physical and biological process, including disinfection as needed, prior to being discharged to irrigation fields. Also, it would have to be applied to the reclamation areas in accordance with WDRs (i.e., at agronomic and proper organic rates) not just to prevent nuisance but also to prevent adverse water quality impacts. The agronomic rates would factor in the nutritive value (i.e., ammonia and total nitrogen) of the wastewater and other commercial fertilizer applied to the areas.

French drain systems (existing on the adjacent property and to be installed on the onsite parcel) would collect excess irrigation water that passes the root zone and is not uptaken by crops in the reclamation areas. These systems in the Imperial Valley are also known as “tile drains,” which discharge tilewater to surface drains. In the Project Area, the surface drains are tributary to the New River, which in turn is a tributary to the Salton Sea. It is expected that the irrigation of the 10- and 130-acre reclamation areas with treated wastewater from the Facility would also generate tilewater that will be discharged to the McNeale Drain. COCs (e.g., pathogen-indicator

bacteria) have the potential to be present in the tilewater from the reclamation areas, but it is unknown whether they will be present at concentrations and densities that threaten surface water quality. A monitoring program for the tilewater discharges from the reclamation areas is necessary to characterize the threat to and determine whether additional requirements (e.g., require disinfection and/or an NPDES Permit for the discharge to the reclamation areas) are necessary to prevent adverse impacts on and protect surface water quality from degradation.

Hydrologic studies conducted in support of the Project design (ERM 2016) concluded that the existing and proposed drain systems would recover most of the water applied at the anticipated application rates to the agricultural fields as part of Project operations. Those studies also concluded that the natural attenuation processes within the soil zone would further reduce the potential for any excess water to adversely impact groundwater, which is of poor quality (ERM 2016). In addition, the discharge to the onsite ponds for storage and of reclaimed water to land for agricultural use will be regulated by WDRs issued by the Regional Water Board. These WDRs will specify (1) discharge limits (water quality and quantity) considered by the Regional Water Board to be protective of water quality, and (2) testing and reporting that would be required to demonstrate compliance with permit requirements. Further, the proposed discharge will be required to meet requirements that result in the best practicable treatment or control (BPTC) of the discharge necessary to assure pollution or nuisance will not occur, and highest water quality consistent with maximum benefit to the people will be maintained. Based on the foregoing, Project-related impacts to water quality during the construction and operational phases of the Project would be less than significant with mitigation measures incorporated.

**Item b):** The limited volumes of water needed during the construction phase would be obtained from the municipal water supply, which is sourced from the Colorado River. Proposed Project activities would not involve the withdrawal of groundwater, as the City of Brawley does not extract or use groundwater due to the high salinity/TDS content (ERM 2016). The proposed Project would construct localized impervious surfaces where none previously existed (i.e., new wastewater treatment system components, including up to 24 approximately 278-foot-long by 65-foot-wide concrete beds; three 300,000-gallon holding tanks; and a concrete pump station covering an approximately 10-acre area; see **Figure 3**). These new impervious surfaces would interfere with groundwater recharge from rainfall in those localized areas. However, given the low amount of precipitation typically observed at the site, such recharge would be relatively minor even without the presence of these new features. Therefore, proposed Project activities would not result in depletion of groundwater or substantial interference with groundwater recharge.

**Items c), d), e):** The proposed Project would not alter the course of any stream or river. Project-related soil-disturbance activities include grading and compacting of the system parcel for construction and installation of the BioFiltro system, and installation of an irrigation and drain system for land application on the approximately 10-acre parcel onsite. These soil-disturbance activities and new structures would alter existing drainage patterns. As noted above, the Project Area has relatively low rainfall rates. Currently, rainfall runoff at the site generally flows to the north-northeast, and drains into the existing storm water collection system, which consists of two storm water retention basins on the east and north sides of the property (ERM 2016). The retention basins do not have discharge outlets to surface water, and the storm water runoff at the site is completely contained within the basins and does not leave the property (OWB 2016). After the Project-related structures have been installed, runoff would continue to flow into the

existing storm water retention basins. During construction and operation, the site would also operate under SWPPPs (construction and operation), apply BMPs, and comply with state and local regulatory requirements to control storm water runoff at the Facility and reduce the potential for storm water-related erosion and sediment migration off Site.

Detailed monthly water balances for the proposed discharge of reclaimed water to land are provided in the ROWD Application (ERM 2016). The total gross crop water need would be approximately 84 inches per year, which would be provided through approximately 22 inches per year of treated wastewater application (ERM 2016), and approximately 62 inches per year of fresh water irrigation from the IID. As noted above, the existing and proposed drain systems would recover most of the excess water applied to the agricultural fields as part of proposed Project operations.

Based on the above, the Project impacts related to alterations of drainage patterns and changes in runoff volume would be less than significant.

**Item f):** As discussed under Items a) through e), the Project would comply with regulatory requirements for discharges of storm water to effectively protect surface water quality in the Project Area. In addition, the application of reclaimed water to agricultural lands would be regulated by the Regional Water Board-issued WDRs, which will specify (1) discharge limits (water quality and quantity) considered by the Regional Water Board to be protective of water quality and (2) testing and reporting that would be required to demonstrate compliance with permit requirements. Accordingly, the proposed Project would have a less-than-significant impact on water quality with mitigation measures incorporated.

**Items g), h):** The Project Area is not located within the 100-year flood zone, and the proposed Project would not involve the construction of housing or other structures within the 100-year flood hazard area. Therefore, the proposed Project would not result in any impacts to flood hazards.

**Items i), j):** The Project Area is not located in areas that would be affected by flood hazards or dam inundation. The site is not susceptible to seiche or tsunami inundation because there are no major landlocked bodies of water within or near it. As the site is not located in landslide hazard areas, the potential for mudslides is low. The Project would not increase the impacts of a natural disaster, or further expose people or structures to risks as a result of flooding (due to failure of a levee or a dam) or seiche, tsunami, or mudflow (caused by earthquake or other natural disaster).

### 3.9.3 Mitigation Measures

Because the discharge of wastewater from Project to the reclamation areas could have adverse impacts on surface and groundwater quality if not properly operated and maintained, the Regional Water Board WDRs should contain requirements as mitigating measures to prevent significant water quality degradation. Additionally, OWB should be required to obtain coverage under the State General Construction Storm Water NPDES Permit. The following mitigation measures should be implemented:

MM-HYD-1: Prescribe hydraulic and organic loading rates (i.e., inches of water, pounds of BOD/acre, effluent limitations and discharge specifications) for the reclamation areas to ensure

the reclamation areas are not hydraulically and organically overloaded and ensure that reclamation takes place at agronomic rates;

MM-HYD-2: Prescribe application rates that do not permit reclaimed water to be applied to fields in a manner that causes wastewater to stand for greater than 48 hours.

MM-HYD-3: Prescribe a prohibition of discharge to reclamation areas during precipitation events and in excess of agronomic rates.

MM-HYD-4: Prescribe that OWB prepare and submit to the Regional Water Board for approval a proposed Wastewater Reclamation Plan to assure irrigation of the reclamation areas take place At a agronomic rates in a manner that prevents nuisance conditions at the reclamation areas;

MM-HYD-5: Prescribe a comprehensive Monitoring and Reporting Program in the WDRs that will monitor the Constituents of Concern in the treated wastewater stored in the onsite ponds, the reclaimed water used for irrigation of agricultural land and the tilewater discharged to the drain.

### **3.9.4 References**

ICF International. 2010. Rancho-Porto Development Project, Final Environmental Impact Report. August 2010.

ICF Jones & Stokes. 2008. City of Brawley, Final General Plan Update, 2030. September 2008.

ASR Engineering, Inc. 2016. Geotechnical Engineering Investigation, One World Beef BioFiltro, 57 Shank Road, Brawley, California. 25 August.

City of Brawley. 2008. Stormwater Management Plan. September 2008.

ERM. 2016. Report of Waste Discharge Application – Discharge to Land and Surface Waters, Beef Processing Facility, 57 East Shank Road, Brawley, California. June 2016.

OWB Packers, LLC. 2016a. Storm Water Pollution Prevention Plan and Monitoring Implementation Plan. April 2016.

### 3.10 LAND USE AND PLANNING

<b>LAND USE AND PLANNING</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.10.1 Significance Criteria

Land use and planning impacts are considered significant if the Project conflicts with the land use and zoning designations established by the City of Brawley.

#### 3.10.2 Environmental Setting and Impacts

The Project Area is located on land zoned as M-1 and M-2 for Light and Heavy Manufacturing and Industrial Uses (City of Brawley 2014). Surrounding properties are primarily zoned for Light Manufacturing and Public Facilities (P-F). **Figure 1** shows the surrounding land uses. The Project Area is bordered by SR 78/11 Brawley Bypass and agricultural land to the north; agricultural land to the east; Brawley Municipal Airport followed by a mix of residential and commercial properties to the south; and Union Pacific Railroad, commercial properties, and agricultural land to the west.

The residential neighborhood nearest the site is located approximately 0.26 mile south along Colegrove Road and Duarte Street. The site is not located within any applicable areas covered by Habitat Conservation Plans or Natural Community Conservation Plans.

**Item a):** The construction of the BioFiltro system would occur entirely within the boundaries of the existing site that is operating in accordance with the CUP. The zoning of the property also allows agricultural uses by right. The reclaimed wastewater would be used for irrigation on adjacent land that historically has been and currently is being used for agricultural purposes. The Project will not disrupt or divide an established community, and would comply with the City’s land-use requirements. Furthermore, construction vehicles and equipment would utilize paved city roads and highways and the Project would not involve the construction of new roads. As such, there would be no impact.

**Item b):** The Project Area has been zoned for industrial purposes by the City of Brawley and is immediately surrounded by other commercial and industrial properties (City of Brawley 2014).

Project activities would be industrial in nature and therefore would be consistent with the current zoning and surrounding land uses.

The City of Brawley General Plan also outlines the City's land use goals, which include creating balanced, compatible, and complementary development; and revitalizing aging commercial, industrial, and residential properties (City of Brawley 2008). The proposed Project would align with the City's goals as it would revitalize a currently unused industrial property, support compatible land uses, and contribute to Brawley's economic development. As such, the proposed Project would be consistent with the plans and goals of the community and there would be no impact.

**Item c):** Currently, no adopted habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans overlap with the site or adjacent property. The IID is currently in the process of preparing a Natural Community Conservation Plan and Habitat Conservation Plan; however, the plan development is still in the progress and there is no projected date for adoption. Thus, no conflict would occur.

### **3.10.3 Mitigation Measures**

Because the Project would have no impact on land use or planning, no mitigation measures are required.

### **3.10.4 References**

City of Brawley. 2014. Official Zoning Map. October 2014

City of Brawley. 2008. City of Brawley Final General Plan Update, 2030. September 2008.

Retrieved from:

<http://worldcat.org/arcviewer/1/CBG/2009/02/06/H1233943104215/viewer/file2.pdf>

### 3.11 MINERAL RESOURCES

<b>MINERAL RESOURCES</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.11.1 Significance Criteria

Project-related impacts on mineral resources are considered significant if any of the following conditions are met:

- The Project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- The Project results in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

#### 3.11.2 Environmental Setting and Impacts

Based on the Imperial County General Plan Conservation and Open Space Element (Figure 8, *Imperial County Existing Mineral Resources*), there are no known mineral resources or mineral resource sites in the Project Area (Imperial County 2016). Additionally, Imperial County does not contain any mineral resources containing a Surface Mining and Reclamation Act classification (DOC 2013). Still, a number of mineral resources including gold, gypsum, sand, gravel, lime, clay, stone, kyanite, limestone, sericite, mica, tuff, salt, potash, and manganese are currently being extracted in Imperial County. These extractions, however, are limited and are sparsely scattered throughout the county (Imperial County 2016).

**Items a), b):** All proposed Project activities would occur within the boundaries of the Project Area or along paved city roads and highways and would not impact mineral resources in the city of Brawley or surrounding cities. Therefore, there would be no impact.

#### 3.11.3 Mitigation Measures

Because the Project would create no impact to mineral resources, no mitigation measures are required.

#### **3.11.4 References**

Imperial County. 2016. Imperial County Conservation and Open Space Element. March 8, 2016. Retrieved from: <http://icpds.com/CMS/Media/Conservation-&-Open-Space-Element-2016.pdf>

California Department of Conservation (DOC). 2013. Publications of the SMARA Mineral Land Classification Project Dealing with Mineral Resources in California. March 2013. Retrieved from: [http://www.conservation.ca.gov/cgs/minerals/mlc/Documents/SMARA\\_Publications\\_March\\_2013.pdf](http://www.conservation.ca.gov/cgs/minerals/mlc/Documents/SMARA_Publications_March_2013.pdf)

### 3.12 NOISE

<b>NOISE</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.12.1 Significance Criteria

Impacts on noise are considered significant if:

- Construction noise levels exceed the City of Brawley noise ordinance or, if the noise threshold is currently exceeded, Project noise sources increase ambient noise levels by more than three A-weighted decibels (dBA) at the site boundary. Construction noise levels would be considered significant if they exceed federal OSHA noise standards for workers.
- Operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, Project noise sources increase ambient noise levels by more than three dBA at the site boundary.
- Project equipment would generate noise greater than 90 dBA at the property line.

#### 3.12.2 Environmental Setting and Impacts

The proposed Project would result in the construction and operation of the proposed BioFiltro units and the use of the reclaimed water for agriculture. Both activities would occur in an area

that is dominated by existing industrial and agricultural uses. The Project Area is in “Noise Zone C” under the City’s Zoning Ordinance, which is defined as a high-noise area in which no development is discouraged. In fact, the runway for the Brawley Municipal Airport borders the southern side of the Project Area.

The use of construction equipment would be limited to the hours of 7 a.m. to 7 p.m., Monday through Friday, and 9 a.m. to 5 p.m. on Saturday. No commercial construction operations would be permitted on Sunday or Holidays.

**Items a), b), c), d):** Except for the installation of the pipeline to provide reclaimed water to the adjacent farmland, all construction and operation would occur within the existing boundaries of the Project Area. The area is in a highly industrialized area, and no noise-sensitive receptors immediately adjoin the Facility. The residential community nearest the site is located approximately 0.26 mile to the south, south of Brawley Municipal Airport. The existing ambient noise environment is dominated by the Brawley Municipal Airport (to the south), the Brawley Bypass (to the north and east), and a railroad line and other industrial activities (to the west.)

The installation of the BioFiltro system would occur in phases as noted on **Figure 3** (approximately 5 to 7 weeks for both Phases 1 and 2 of construction and approximately 10 to 14 weeks for Phase 3), with individual elements more iterative and shorter term. Noise from construction vehicles and equipment and from the installation of the BioFiltro units is expected to be consistent with the industrial nature of the area and largely absorbed within the existing background noise being generated by the airport, freeway, rail, onsite and surrounding industrial uses, and other traffic noise sources.

The BioFiltro system uses biological processes to treat wastewater, making it unlikely that the operation of the units would cause any noise impacts. The pumps required to move water from the system for use in the agricultural fields also would generate a minimum amount of noise for the area. Project-related noise levels are expected to be less than significant. The installation of the BioFiltro system and the ancillary pipelines would not require blasting or other vibration-causing events.

**Items e), f):** The Project Area is less than 0.10 mile north of the Brawley Municipal Airport runway and approximately 3 miles from the Pioneers Memorial Hospital Heliport, a private airstrip. Future operations, which include the processing of cattle, would experience noise from airport activities; however, these effects would be consistent with past activities, as analyzed in the 2000 MND (City of Brawley 2000). Construction workers during the anticipated 3-month construction period would also be affected by airport noise. These crew workers would be notified of the hazard and would wear hearing protection, as appropriate. These effects would be less than significant and short term in duration.

The previous MND considered and did not identify any air traffic-related impacts that would result in a safety hazard for people residing or working at the Facility. As such, the Project would result in no impact with respect to private airstrip-related safety hazards for people residing or working near the site.

### **3.12.3 Mitigation Measures**

Because the Project would create no significant adverse noise impacts, no mitigation measures would be required.

#### **3.12.4 References**

City of Brawley. 2000. City of Brawley Mitigated Negative Declaration BP Ventures Beef Processing Facility Conditional Use Permit. July 26, 2000.

### 3.13 POPULATION AND HOUSING

<b>POPULATION AND HOUSING</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.13.1 Significance Criteria

The impacts of the Project on population and housing are considered significant if the following criteria are exceeded:

- The demand for temporary or permanent housing would exceed the existing supply.
- The proposed Project would produce additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

#### 3.13.2 Environmental Setting and Impacts

The population of Brawley as of July 1, 2015, was approximately 25,897. Between 2010 and 2014, the City experienced a population increase of approximately 3.8 percent (US Census Bureau 2016). In 2013 the racial makeup of Brawley was 82.3 percent Hispanic, 15 percent white, 1.7 percent black, and 0.5 percent Asian, with mixed-race and American Indians making up 0.35 percent of the population (Advameg 2016). In 2010, 10.5 percent of the population consisted of persons 65 years and older, 32.6 percent of the population consisted of persons under 18 years, and 9.5 percent of the population consisted of persons under 5 years (US Census Bureau 2016).

There were approximately 8,231 housing units in Brawley in 2010. Between the years of 2010 and 2014, there were approximately 7,455 households in Brawley with an average of 3.4 persons per household (US Census Bureau 2016). The residential area nearest the Project Area is located approximately 0.26 mile to the south. The Project Area and immediate vicinity are zoned primarily for industrial and public purposes (City of Brawley 2014).

The median household income between 2010 and 2014 was \$41,718 (US Census Bureau 2016) with agriculture, public administration, and manufacturing being the most common employment industries (Advameg 2016).

**Items a), b), c):** The proposed Project would not result in the relocation of individuals, impact housing or commercial facilities, or change in the distribution of the population. No new homes or roads are planned as part of the proposed Project and proposed upgrades would not result in direct or indirect population growth. Construction crews would be hired locally for the short duration of the proposed Project. Consequently, the proposed Project would have no impact on population, population distribution, or housing.

### **3.13.3 Mitigation Measures**

No impacts from the proposed Project on population and housing would be expected and no mitigation measures would be required.

### **3.13.4 References**

US Census Bureau. 2016. Quick Facts Brawley city, California. Accessed September 1, 2016. Retrieved from: <http://www.census.gov/quickfacts/table/PST045215/0608058>.

Advameg. 2016. Brawley, California. Accessed September 1, 2016. Retrieved from: <http://www.city-data.com/city/Brawley-California.html>

City of Brawley. 2014. Official Zoning Map. October 2014.

### 3.14 PUBLIC SERVICES

<b>PUBLIC SERVICES</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.14.1 Significance Criteria

Impacts on public services are considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

#### 3.14.2 Environmental Setting and Impacts

The Brawley Fire Department and the Brawley Police Department are responsible for fire and police services in the City of Brawley. In the event of a major emergency, Imperial County and the State of California assume local emergency roles (City of Brawley 2008). The Brawley Fire Department is made up of 13 firefighters and two fire stations: Fire Station 1, located at 815 Main Street, and Fire Station 2, located at 1505 Jones Street (USA Fire Departments 2015). Brawley Police Department consists of 31 officers is located at 351 Main Street (PoliceOne 2016).

Brawley is made up of four school districts: Brawley Elementary School District, Brawley Union High School District, Magnolia Union Elementary School District, and Mulberry Elementary School District (ICOE 2015). Brawley Elementary School District consists of four elementary schools and one middle school; Brawley Union High School District is made up of two high schools and one alternative education school; and Magnolia Union Elementary School District and Mulberry Elementary School District are made up of one Kindergarten through eighth-grade (K-8) school each. There are no schools within a 1-mile radius of the proposed Project site.

**Item a):** The Facility operations must comply with all applicable code and ordinance requirements for access, water mains, fire flows, and fire hydrants and those would not be

changed by the Project. The Project Area is served by emergency response provided by the City Fire Department and that would not change. The Facility is designed to accommodate large fire protection vehicles, and the proposed Project would not alter that fact.

The City of Brawley Police Department provides law enforcement services for the site, which is fenced with entry and exit controlled at an existing security gate. No changes are proposed that would affect the usability, adequacy, and responsiveness of existing law enforcement services within the city.

Construction crews would be hired locally from populations living in Imperial County and the City of Brawley for the short duration of the Project and would not independently stress fire and police services or result in increased response times. Additionally, the Project would not result in further demand on schools, parks, and other public facilities and service ratios would remain at an acceptable level. As such, proposed construction and operations would not affect public facilities and there would be no impact.

### **3.14.3 Mitigation Measures**

Because the proposed Project would not impact public services, no mitigation measures would be required.

### **3.14.4 References**

City of Brawley. 2008. City of Brawley Final General Plan Update 2030. September 2008.

USA Fire Departments. 2015. City of Brawley Fire Department. Accessed September 1, 2016. Retrieved from: <http://usfiredept.com/city-brawley-fire-department-4294.html>

PoliceOne.com. 2016. Brawley Police Department – Brawley, CA. Accessed September 1, 2016. Retrieved from: <http://www.policeone.com/police-departments/brawley-police-dept-brawley-ca/>

Imperial County Office of Education (ICOE). 2015. School Districts. Accessed September 2, 2016. Retrieved from: <https://www.icoe.org/about-icoe/school-districts>

### 3.15 RECREATION

<b>RECREATION</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.15.1 Significance Criteria

The impacts to recreation are considered significant if:

- The Project would result in an increased demand for neighborhood or regional parks or other recreational facilities.
- The Project would adversely affect existing recreational opportunities.

#### 3.15.2 Environmental Setting and Impacts

There are a total of 26 parks and recreational facilities in Brawley. The park nearest the Project Area is Alyce Gereux Park, located 2.2 miles south of the site on E. Adler Street and N. Eastern Avenue (City of Brawley 2015).

**Items a), b):** The proposed Project would not increase the demand for neighborhood or regional parks, or other recreational facilities in the area because it would not increase the local population. The Project would not include any new recreational facilities, require expansion of existing recreational facilities, or adversely affect recreational services since it would not increase the local population. As such, there would be no recreational impacts resulting from the proposed Project.

#### 3.15.3 Mitigation Measures

Because the proposed Project would not impact recreational resources, no mitigation measures are required.

#### 3.15.4 References

City of Brawley. 2015. Parks and Recreation. Accessed September 1, 2016. Retrieved from: <http://www.brawley-ca.gov/section/Parks-and-Recreation/Parks-and-Facilities>

### 3.16 TRANSPORTATION/TRAFFIC

<b>TRANSPORTATION/TRAFFIC</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the importance of the circulatory system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulatory system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.16.1 Significance Criteria

The impacts on transportation/traffic are considered significant if any of the following criteria apply:

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than 1 month.
- An intersection's volume-to-capacity ratio increases by 0.02 (2 percent) or more when the LOS is already D, E, or F.
- A major roadway is closed to all through traffic, and no alternate route is available.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.

- The demand for parking facilities is substantially increased.
- Waterborne, rail car, or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.

### 3.16.2 Environmental Setting and Impacts

The Project Area is located at 57 East Shank Road in Brawley, California. The Project Area is bordered by SR-78/111 Brawley Bypass to the north; Union Pacific Railroad tracks to the west; beyond which is N. 8th Street; and Slider Road to the east. Primary access to the site is provided by the 2-lane, east-west East Shank Road and Slider Road.

The majority of SR-78 in Imperial County is a 2-lane east-west arterial highway characteristic of signalized and non-signalized intersections and reduced speed zones (Caltrans 2007). SR-111 is a 2- to 4-lane, approximately 130-mile, north-south highway connecting Calexico at the International Border to Imperial County (Caltrans 2015a). The intersection of SR-78/111, Brawley Bypass, is a 4-lane, 8-mile divided expressway that extends from “SR-86, northwest of the city of Brawley, to SR-111 southeast of the city of Brawley in Imperial County” (Caltrans 2001). The bypass is signalized where the old SR-78 and SR-111 merge (Caltrans 2015b). The construction of Brawley Bypass was intended to alleviate heavy truck traffic traveling through Brawley (Caltrans 2015a). The LOS for Brawley Bypass in 2012 and 2013 was rated as A. Traffic data for Brawley Bypass are summarized in **Table 6**. No data were available for East Shank Road and Slider Road; however, given the predominantly industrial character of this area, it is assumed that traffic volume on these streets is generally low.

**Table 6 2012-2013 Traffic Data for Brawley Bypass**

<b>Brawley Bypass Segment Location</b>	<b>South Junction SR-68 to South-111 Junction</b>	<b>North Junction SR-111 to South SR-111 Junction</b>
<b>Average Annual Daily Traffic (AADT)</b>	6,400	6,500
<b>Peak Hour Volumes</b>	360 Eastbound PM Total	536 Eastbound PM Total
<b>LOS</b>	A	A
<b>Vehicles Miles Traveled (VMT)</b>	23,603	12,220
<b>Total Average Annual Daily Truck Traffic (AADTT)</b>	2,368	2,275

Source: Caltrans 2015b

The City established a Circulation Plan to maximize the circulation of traffic throughout the City (City of Brawley 2008). LOS is used as the main criterion for evaluating transportation performance in Brawley. Average Daily Traffic (ADT) is accommodated by LOS A through E for various roadway categories, with LOS A representing the most favorable roadway conditions. The City of Brawley has established LOS C as the standard to monitor traffic and congestion in the city (City of Brawley 2008). LOS C is described as:

“A condition of high-density, stable flow in which speed and freedom of movement are severely restricted by the presence of vehicles. At signalized intersections, some vehicles may occasionally have to wait for more than one green light in order to pass through the intersection.”

The City maintains an LOS C as the threshold standard for monitoring the performance of community roadways (City of Brawley 2008).

Based on the analysis completed for the initial Facility construction, the City prescribed specific design measures to offset such hazards in the site layout, which were employed as conditions in the CUP (City of Brawley 2000). These design elements include two egress lanes at the main Project driveway from Shank Road, a westbound left turn-in lane from Shank Road, and a dedicated right-of-way set aside for the future expansion of Shank Road. These improvements have been made.

Most proposed Project activities would occur primarily within the site footprint and would not affect Union Pacific or other mass transit transportation systems, such as IVT. Transportation to and from the site for the Project would occur along paved, designated city roads and highways and would not obstruct pedestrian and bike paths. During construction, the proposed Project would generate between 5 and 10 truck roundtrips per day, over an estimated 5 to 7 weeks for each of Phases 1 and 2 of construction and an estimated 10 to 14 weeks for Phase 3. In general, truck arrivals during construction would be staggered over the course of the day and larger construction equipment would be staged onsite during consecutive days to limit the amount of vehicle trips per day. During operations, the Project would require no additional operating personnel.

OWB would coordinate closely with the City for traffic control and planning during construction to limit trips during peak commuting periods (before 9:00 a.m. and after 3:00 p.m.). If needed, a Traffic Control Plan would be developed in consultation with the City.

**Items a), b):** The traffic generated by both the proposed Project and the existing, permitted Facility would be within the limits identified in the CUP and evaluated in the MND (City of Brawley 2000a; 2000b). Anticipated additional Project-related traffic volumes during construction would be minor and not expected to degrade the existing LOS A status on surrounding roadways such that they would operate below City standards. The Project would result in minor increases in vehicle traffic that could be accommodated by the current transportation systems in Brawley. Additionally, the proposed Project would conform to all policies, goals, and ordinances related to the City’s transportation systems. Consequently, the Project would have a less-than-significant impact on applicable plans, ordinances, and policies, or congestion management plans.

**Item c):** The Project would not affect air traffic patterns. No planes, helicopters, jets or related aircraft would be utilized during construction or operations that would result in increases in air traffic. Additionally, no permanent, tall structures that have the potential to obstruct aircraft or pose safety risks are proposed. The proposed Project would conform to all Federal Aviation Administration regulations concerning construction activities near an airport.

**Item d), e):** Installation of the proposed BioFiltro wastewater treatment system and associated infrastructure would be located on private land within the site boundaries and would not substantially increase traffic hazards or create incompatible uses at or adjacent to the Project Area. The proposed Project would utilize existing paved roads during the transport of construction and operations vehicles, and road geometrics would not be altered. No new roads or intersections are proposed that have the potential to create additional hazards. The traffic generated by both the proposed Project and the existing Facility would be within the limits identified in the CUP and evaluated in the MND (City of Brawley 2000a; 2000b). Therefore, the proposed Project would not substantially increase hazards due to a design feature or incompatible land uses. The proposed Project would not increase traffic beyond that allowed in the CUP during construction or impact emergency access through existing emergency access gates.

**Item f):** Construction contractors and OWB employees utilizing city transportation systems would conform to all programs, plans and policies regarding public transit, bicycle, and pedestrian facilities. The Project Area is located in a heavy industrial area where few pedestrian facilities and bicycle paths exist. Proposed project-related activities would occur primarily on the site or on existing paved roads and highways. Therefore, the construction and operation of the new wastewater treatment system and associated infrastructure would not affect area roadways or bicycle facilities, bus turnouts, or other means of facilitating alternative transportation. The proposed Project would have no impact on adopted policies, plans, or programs supporting alternative transportation.

### **3.16.3 Mitigation Measures**

Because the proposed Project would not cause any significant impacts to traffic and transportation, no mitigation measures would be required.

### **3.16.4 References**

Caltrans. 2007. Draft SR-78 Imperial County Transportation Concept Summary. October 2007. Retrieved from:

[http://www.dot.ca.gov/dist11/departments/planning/pdfs/tcs/07\\_SR\\_78\\_TCS\\_Imperial.pdf](http://www.dot.ca.gov/dist11/departments/planning/pdfs/tcs/07_SR_78_TCS_Imperial.pdf)

Caltrans. 2015a. State Truck Route List. Accessed September 2, 2016. Retrieved from:

[https://en.wikipedia.org/wiki/California\\_State\\_Route\\_111#cite\\_note-trucklist-1](https://en.wikipedia.org/wiki/California_State_Route_111#cite_note-trucklist-1)

California Department of Transportation (Caltrans). 2001. State Routes 78/111 Brawley Bypass. Draft Environmental Impact Statement/Report. May 2001. Retrieved from:

<http://www.dot.ca.gov/dist11/news/brawley/BrawleyBypass.htm>

Caltrans. 2015b. Transport Concept Report State Route 78 Imperial County District 11. September 2015. Retrieved from:

[http://www.dot.ca.gov/dist11/departments/planning/pdfs/tcr/2015\\_TCR\\_SR\\_78\\_IMP.pdf](http://www.dot.ca.gov/dist11/departments/planning/pdfs/tcr/2015_TCR_SR_78_IMP.pdf)

City of Brawley. 2008. City of Brawley General Plan Update 2035. September 2008.

City of Brawley. 2000a. City of Brawley Mitigated Negative Declaration BP Ventures Beef Processing Facility Conditional Use Permit. July 26, 2000.

City of Brawley. 2000b. City of Brawley Conditional Use Permit No. 00-01. Signed December 2000.

### 3.17 TRIBAL CULTURAL RESOURCES

<b>TRIBAL CULTURAL RESOURCES</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.17.1 Significance Criteria

Impacts to tribal cultural resources would be considered significant if the Project would alter such resources, as defined in Public Resources Code section 21074, in a way that would alter the cultural significance or cultural value by a California Native American tribe.

#### 3.17.2 Environmental Setting and Impacts

**Item a), b):** As noted in Section 3.5, Item a-b), The Project Area is not located in the areas identified as Important Archaeological Areas in the City of Brawley’s General Plan (2008). The EIR for the Imperial County General Plan (n.d.) designates the Project Area and surrounding region as having “zero to rare” sensitivity for cultural resources. There are no known listed or eligible for listing tribal cultural resources within the Project Area and the proposed Project would not affect resources in the surrounding area. Furthermore, previous activities within the Project Area have not uncovered any tribal cultural resources. Prior to construction, the Facility was active farmland prior to construction in 2000 and was irrigated since the early 1940s. The adjacent 130-acre parcel has been actively farmed for over 70 years. As a result it is unlikely that new tribal cultural resources would be unearthed or otherwise adversely changed or disturbed by the proposed activities.

The Torres-Martinez Cahuilla Indian Tribe is the closest tribal reservation that may have interest on the Project Area. Although no tribal resources are known that might be affected by the proposed activities, pursuant to Assembly Bill 52, which requires formal notification to tribes when a state agency accepts a project application or makes a decision to undertake a project, the Regional Water Board has given such notification to these two tribes and is awaiting response. The Project would therefore not result in substantial adverse changes in the significance of a tribal cultural resource.

### **3.17.3 Mitigation Measures**

Because the proposed Project would not cause any significant impacts to tribal cultural resources, no mitigation measures would be required.

### **3.17.4 References**

City of Brawley. 2008. *City of Brawley, Final General Plan 2030*. Prepared by ICF Jones & Stokes, San Diego, California, for the City of Brawley, California.

### 3.18 UTILITIES AND SERVICE SYSTEMS

<b>UTILITIES AND SERVICE SYSTEMS</b> <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.18.1 Significance Criteria

The impacts on utility and service systems are considered significant if any of the following criteria apply:

- The Project would cause a substantial demand for water supplies or wastewater treatment.
- The Project would create an increase in runoff intensity that exacerbates drainage conditions and changes.
- The Project would produce an insufficient provision for solid waste or sludge disposal.
- The Project would violate Regional Water Board or State Water Resources Control Board waste discharge requirements, including requirements for the proposed discharge of treated wastewater to the storage ponds and for irrigation of the 10- and 130-acre parcels and storm water requirements.

#### 3.18.2 Environmental Setting and Impacts

##### Water, Storm Water, and Wastewater

The City obtains raw, imported Colorado River water from the IID, which serves as the regional water supplier for agricultural, municipal, and industrial users. Untreated water to be used for agricultural purposes is delivered to customers directly from the canal systems owned and operated by the IID, and water to be used for domestic and commercial/industrial purposes is delivered to the City's water treatment plant for filtration and disinfection before being pumped into the water distribution system (ICF Jones & Stokes 2008). The City POTW has a capacity of 5.9 MGD and currently processes 3.84 MGD (City of Brawley 2013). The system is currently operating at 65 percent of the maximum design capacity per the standards of the Regional Water Board (City of Brawley 2013). Once water is treated, it is discharged to the New River, which ultimately flows into the Salton Sea. Also, the City has a Pretreatment Program approved by the Regional Water Board. The Pretreatment Program regulates, in substantive part, industrial discharges into the City POTW. The City MND already addressed the discharge from the Facility into the POTW, and the Facility will obtain a City sewer discharge permit as an emergency contingency for wastewater disposal capacity.

Groundwater is considered unusable for municipal potable water or irrigation water supplies due to the high salinity/TDS content and there is currently no groundwater management plan for the City of Brawley (Dynamic Consulting Engineers, Inc. 2011).

#### Landfills and Solid Waste

Republic Services is the local service provider for the City's solid waste collection and disposal. The landfill serving the City of Brawley is the Allied Imperial Landfill. The landfill has a projected total volume capacity of approximately 19,514,700 cubic yards with a remaining life of approximately 30 years. During previous site operations, sludge wastes generated from the site wastewater treatment plant were historically disposed of at the South Yuma County Landfill, which is approximately 60 miles southeast of Brawley in Yuma, Arizona (Regional Water Board and Trinity Consultants 2014). The South Yuma County Landfill has been designed to exceed a design capacity of 2.5 million cubic meters and 2.5 million megagrams (Arizona Department of Environmental Quality 2010).

**Item a):** The new BioFiltro system would replace and upgrade the existing pond-based wastewater treatment system. The new system would not change the purpose or capacity of the Facility, which is regulated by the CUP, and it would be constructed and operated within the boundaries of the existing site. During the startup phase of operations, the proposed Project would generate a maximum of approximately 238,000 gpd of wastewater for treatment in the proposed BioFiltro system. Treated wastewater would be discharged to the 140 acres of land within the Project Area and would comply with the Regional Water Board's WDRs.

Proposed Project-related construction activities would produce a relatively small volume of wastewater, primarily associated with human waste, which would be contained in portable restroom units and disposed of off Site, and occasional equipment rinsing. Equipment rinse water would be allowed to flow onto the ground surface where it would either percolate into the ground or flow into the storm sewer system. BMPs would be employed in accordance with permit requirements to prevent silt entrained in runoff from migrating into the storm sewer or offsite. No treatment of this runoff would be needed. Further, any storm water generated during construction activities and storm water generated during the operation of the new wastewater treatment system for the Facility would have to be managed in accordance with the State Water

Resources Control Board Order No. 2009-0009-DWQ and Order No. 2014-0057-DWQ, respectively.

Based on these factors, the Project would not result in the exceedance of any wastewater treatment requirements of the applicable Regional Water Board. During later stages of the BioFiltro operations, new discharge approaches would be defined based on the results and findings of the initial discharge and testing. OWB would obtain appropriate permits prior to any discharge beyond the 238,000 gpd reviewed in this document and permitted through the WDRs issued by the Regional Water Board.

**Item b):** The Project would involve the construction of a new wastewater treatment system; that system will replace the existing system. The Facility would operate as it did between 2001 and May 2014 pursuant to the original CUP. The new water treatment system would not result in the expansion of facility operations.

**Item c):** The Project would not require the construction of new storm water drainage facilities or an expansion of the existing system and so no significant effects will be created. Subsurface disturbance activities associated with the Project may alter drainage patterns during compacting/grading and installing a new irrigation and drain system within the Project Area. However, it is anticipated that the topographic gradient at the site would not change following soil disturbance activities, and runoff would continue to flow into the existing storm water retention basins. Localized impervious surfaces installed as part of the new treatment system (open concrete beds for the BioFiltro system components, holding tanks, a concrete pump station, and DAF 3) would have minor impacts to surface water flow. Project-related construction activities would produce a relatively small volume of wastewater, which would be allowed to flow onto the ground surface where it would either percolate into the ground or flow into the storm sewer system.

Once the BioFiltro system is in operation, storm water flow is expected to be comparable to flow prior to construction and would be captured by the existing onsite storm water system. Storm water runoff would flow into existing storm water detention basins. BMPs would be employed as specified in permit requirements to prevent offsite flow and the migration of sediment entrained in surface water runoff into the storm sewer system or offsite during construction and system operation.

The discharge of treated wastewater to the proposed 140 acres of land within the Project Area would be conducted at agronomic rates. Therefore, there would not be an increase the amount of surface runoff from the Project Area. Moreover, Regional Water Board WDRs for the proposed discharge to the 10- and 130-acre parcels would prohibit discharge of tailwater to surface waters (i.e., surface wastewater runoff).

**Item d):** The water demand for proposed Project construction activities is low and would be provided from the City's municipal water supply. During the operational phase, the Facility would operate as it did between 2001 and May 2014 pursuant to the original CUP, with a comparable water demand. The Facility is entitled to receive 2.5 MGD of potable water from the City, the same amount that was reserved for National Beef, pursuant to a Capacity Reservation Agreement. The operation of the new wastewater treatment system and discharge of treated wastewater would not require use of water supplies.

Because the proposed Project-related water demand is limited, the proposed Project would not result in the need for new or expanded entitlements and would not unduly burden existing water supplies; as such, potential impacts on water supply would be less than significant.

**Item e):** Treated wastewater would be discharged in conformance with the requirements and standards of the prescribed WDRs issued by the Regional Water Board for the proposed Project. Based on the Water Balance Study (Provost and Pritchard 2016), the land can accommodate up to 238,000 gpd. No more than this amount would be discharged as a result of initial processing and operations of the Facility without appropriate environmental review, permitting, and approvals. Based on this study, the land has adequate capacity to receive this volume of discharge and this impact would be considered less than significant.

**Item f):** Limited solid waste is expected to be generated during Project construction activities, such as packing materials used during transport of wastewater treatment system components. To the extent possible, construction materials would be recycled and disposed of to minimize solid waste generation by the Project and would not affect landfill capacity. Based on the available capacity of the Allied Imperial Landfill, there is sufficient capacity to accommodate the limited amount of solid waste not suitable for recycling that would be generated during Project construction activities.

Sludge may be generated associated with the nitrification process during wastewater treatment at the site. The previous disposal rate for sludge generated from the wastewater treatment plant was approximately 100 cubic yards per day (Regional Water Board and Trinity Consultants 2014). Consistent with previous operations, this sludge would be sent to the existing belt press at the Facility and would be disposed of at the South Yuma County Landfill. As such, solid waste disposal needs would be met by existing landfills with sufficient capacity, and impacts would be less than significant.

**Item g):** The Project would comply with all federal, state, and local statutes and regulations related to solid waste. None of the solid wastes generated during Project implementation are anticipated to be hazardous and these wastes would not require special handling.

### **3.18.3 Mitigation Measures**

Because the proposed Project would not cause any significant impacts to utilities and service systems, no mitigation measures would be required.

### **3.18.4 References**

City of Brawley. 2013. Initial Study, Housing Element Update. September 2013.

ICF Jones & Stokes. 2008. City of Brawley, Final General Plan Update, 2030. September 2008.

Dynamic Consulting Engineers, Inc. 2011. City of Brawley 2010 Urban Water Management Plan. June 2011.

California Regional Water Quality Control Board, Colorado River Basin Region 7 and Trinity Consultants. 2014. National Beef Brawley Wastewater Pre-Treatment Facility Closure Project, Initial Study/Negative Declaration. September 2014.

Arizona Department of Environmental Quality. 2010. Air Quality Class I Permit for South Yuma County Landfill.

### 3.19 MANDATORY FINDINGS OF SIGNIFICANCE

MANDATORY FINDINGS OF SIGNIFICANCE <i>Would the project:</i>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.19.1 Discussion

**Item a):** Because the Project consists of minor additions to an existing facility in an industrial and agricultural area that has been developed for decades, it would not adversely affect the quality of the environment or eliminate important examples of the major periods of California history or prehistory. The Project Area has been previously disturbed, graded, and developed. With the implementation of MM-BIO-1 (Conduct pre-disturbance assessment for active nests and burrows), the Project would avoid disturbance or impact on any burrowing owls and would not reduce or eliminate any plant or animal species. With this mitigation, the impact would be less than significant.

The Project’s onsite wastewater treatment and storage and offsite disposal at the reclamation areas have significant potential to generate nuisance conditions (e.g., odors) if not properly managed or controlled. With the implementation of mitigation measures MM-AIR-1, -2, -3, -4, and -5, the Project’s potential for nuisance would be substantially and effectively mitigated to less than significant.

The Project’s onsite wastewater treatment and storage and offsite disposal at the reclamation areas have significant potential to degrade surface and ground water quality if not properly managed or controlled. With the implementation of mitigation measures MM-HYD-1, -2, -3, -4, and -5, the Project’s potential for nuisance would be substantially and effectively mitigated to less than significant.

**Item b):** CEQA Guidelines Section 15064(h)(1) requires that a “lead agency consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable.” Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, a lead agency need not consider the effect significant, but must briefly describe the basis for concluding the incremental effect is not cumulatively considerable.

As described above, the proposed Project would contribute incrementally to the impacts on the environment; however, no potentially significant impacts were identified that could not be mitigated to a less-than-significant level. Impacts related to hydrology and water quality, air quality, and traffic could contribute cumulatively to broader, connected actions and cumulative effects. Particulate air emissions of 10 micrometers or less are in nonattainment for both the NAAQS and SAAQS and are regulated by the ICAPCD. Emissions related to either the construction or operation of the proposed BioFiltro system were quantified and found to be below ICAPCD significance thresholds. While these would contribute to cumulative and connected actions, which would include the operation of the Facility as analyzed previously and found to likewise be well below ICAPCD significance thresholds, and other activities in the Salton Sea Air Basin, these emissions would not measurably degrade air quality. Likewise cumulative emissions would not result in other criteria pollutants achieving nonattainment status.

Hydrology throughout the region is connected through the watersheds and irrigation canals. As such the Regional Water Board rigorously regulates water quality and the IID regulates waters entering its irrigation canals. As noted in the hydrology and water quality analysis, wastewater generated would be treated to a level consistent with the WDRs issued by the Regional Water Board prior to accessing either the groundwater or surface water supplies. Like with all projects considered in this cumulative analysis, the Regional Water Board and IID monitor these supplies to minimize or avoid effects. As such, the potential cumulative effect on hydrology and water quality would be less than significant.

Effects of other projects in the area, including the re-staffing of the approved and permitted OWB Facility, would generate additional traffic and require the hiring of permanent staff comparable to the original operations, which included approximately 500 employees. These effects were analyzed in the 2000 MND (City of Brawley 2000) and the site was designed to accommodate these volumes. This Project would contribute cumulatively to the traffic impacts in the short term when construction is underway; however, because no impacts were identified related to population, housing, or impacts on public services, by definition there would be no contributing or additive impact and therefore no cumulative impact. The short-term cumulative traffic impact would be offset by scheduling construction traffic and staging around site parking and peak travel times. The incremental increase would be noticeable but managed completely onsite so as to minimize or eliminate adverse impacts. There would be no effect on emergency access or safety.

Other Project impacts related to biological and cultural resources, GHG emissions, and hazardous materials, though potentially additive, would not result in cumulatively considerable or potentially significant impacts. Biological, cultural, and hazardous material impacts are fully contained onsite. And while there would be GHG emissions resulting from construction and operation of the proposed BioFiltro system, however there would be less than historically generated onsite given that the level of beef processing and consequently the volume of diesel trucks and energy needed to operate the wastewater treatment system would be substantially

reduced. Likewise aeration would no longer be required as part of treatment meaning reducing methane emissions.

As such, while the proposed Project would contribute to cumulative effects on the environment, these impacts would be less than significant and the mitigations identified in this analysis would offset any potential for significance both at a Project and at a cumulative level.

**Item c):** This Project analysis has identified a number of areas where the human environment could be affected by the proposed activities. Specifically, air quality and GHG emissions, though less than significant, would contribute to the local air quality. The ICAQMD regulates such emissions and has permitted the proposed activities to minimize or avoid any such impact. Likewise, water quality resulting from the proposed wastewater treatment could have an effect on the human environment if not treated to an approved level. The Regional Water Board, however, is charged with regulating these water quality levels and, as such, issues very specific WDRs for each type of discharge with discharge specifications and effluent limitations for indicator pathogens to address human health concerns. Finally, noise and traffic generated during construction have the potential to result in local effects on the human environment. As noted in this analysis, however, these impacts are consistent with the surrounding industrial and commercial land use and would not create a new type or potentially significant impact on the human environment. The Regional Water Board and OWB have considered these effects and have found that the proposed Project would not cause a substantial adverse effect, either directly or indirectly, on the human environment.

### **3.19.2 Mitigation Measures**

Because the proposed Project will not cause any significant impacts to utilities and service systems, no mitigation measures would be required.

#### **4.0 PERSONS CONSULTED**

The Regional Water Board has consulted with the following entities in the development of this environmental review:

##### **OWB Packers, LLC**

**Contact:** Eric Brandt, President

**Interest:** Project applicant

##### **Procopio, LLC**

**Contact:** John Lorman, Partner/Project Manager

Hazel Campo, Project Associate

Walter Rusinek, Senior Counsel

**Interest:** Project applicant's legal counsel

##### **ERM-West, Inc.**

**Contact:** Leslie Tice, CEP

Paul Tranquill

**Interest:** Project applicant's environmental consultant

##### **City of Brawley Public Works Department**

**Contact:** Bill Smerdon, Legal Counsel

Roseanna Bayon Moore, City Manager

Rubin Mireles, Operations Division Manager

Guillermo Sillas, Interim Public Works Director

**Interest:** Responsible Agency issuing BioFiltro System Building Permit

##### **Imperial County Air Quality Management District**

**Contact:** Jesus Ramirez, APC Division Manager for Engineering and Permitting

**Interest:** Issuance of air permits and development of related mitigation measures

##### **Torres-Martinez Cahuilla Indian Tribe**

**Contact:**

**Interest:** Regional tribal resource interest

**Activity:** Notification of project pursuant to Assembly Bill 52.

**Colorado River Indian Tribes**

**Contact:**

**Interest:** Regional tribal resource interest

**Activity:** Notification of project pursuant to Assembly Bill 52.

**APPENDIX A**  
**BIOFILTRO BIDA® SYSTEM INFORMATION**

## 1. ABSTRACT

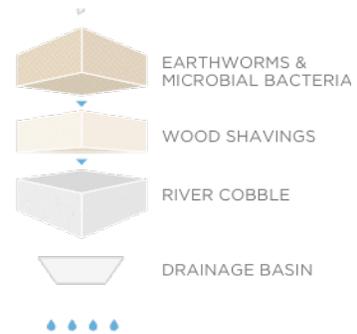
The BIDA<sup>®</sup> System, a biological system for treating liquids by forming bacteria flora using earthworm humus, is disclosed. The system includes a containment tank wherein medias of drainage basins, river cobble, and wood shavings provide physical filtration as well as a living environment for microbial flora and worms, which provide biological digestion to remove contaminants from liquid waste.

## 2. DETAILED DESCRIPTION

The disclosed bacteria flora inoculation process (INOCULUM) can be used for many possible applications, such as for cleaning sanitary wastewater, industrial process water, or other water that presents organic contamination. With regard to industrial water, this technology may be applied to food industry-related waste streams, such as those produced by slaughterhouses, dairies, vineyards and food processors.

### 2.1 System Design

The BIDA<sup>®</sup> System, or the filtration system disclosed herein, is traditionally comprised within an open top concrete pool, approximately five (5) feet in height, wherein the concrete pour base (floor) has a 1% grade to enable water to flow out of the system once treated. From the bottom up, drainage basins (plastic pallets), river rock, geotextiles, and wood shavings are layered. PVC pipes placed along the walls provide passive ventilation to the air chamber created by the drainage basins. The hydraulic loading rate, and thereby dimension, of the system is determined primarily by 1) gallons per day that shall be treated and 2) pounds per day of biological oxygen demand (BOD<sub>5</sub>) that shall be applied. Once constructed, an automated irrigation system, regulated by pump switches, timers, and sensors, applies wastewater across the system surface.



### 2.3 Biological Components

Slaughterhouse liquid waste is primarily made up of organic material such as blood, green waters, excrement, and fats. To organically break down these types of waste, it is necessary to form a biological film and system specialized in digesting this particular waste stream. BioFiltro, when installing a BIDA<sup>®</sup> System, inoculates the system with an industry specific mix of bacteria, worm castings (excrement) and worms, the latter of which is primarily comprised of *eisenia fetida*, or California red worm. During plant construction, BioFiltro will construct temporary onsite habitats so that the microbiology and worms have ample time to acclimate to onsite wastewater before system start up.



The worms, capable of eating their weight each day, digest larger suspended solids and, as a result, produce castings, which are crucial in providing an ideal environment to cultivate rich microbial activity. Worms also provide passive aeration throughout the system as their constant burrowing motion creates air channels throughout the media enabling aerobic bacteria to flourish through the system. BIDA<sup>®</sup> Systems are capable of

attaining red worm population densities of fourteen (14) pounds per cubic yard or approximately fifteen (15) thousand worms, and billions of bacteria to provide a robust digestive power. This symbiotic relationship enables biofilm to form throughout the system. Biofilm refers to a complex structure, or film, of colonies of bacteria and microbial flora such as yeast and fungi, that form a digestive layer on the shavings, rocks, and drainage basins. As water passes through the system, the biofilm capture, retains, and digests contaminants. Filtered water flows out within approximately 4 hours of initial system application.

### *2.3 Removal Efficiency*

The diverse and abundant microbial population may obtain contaminant removal rates of 80 – 99% of biological oxygen demand (BOD<sub>5</sub>), 80 – 99% of Total Suspended Solids (TSS), 80 – 99% of Oil and Grease, 30 – 70% of Phosphorus (P), and 60 – 95% of Total Nitrogen (TKN). Biofilm is also formed on the river cobble and drainage basins to provide further digestive power to organic material that was not retained in the superior layers of the system.

### *2.4 Wastewater Conveyance and Treatment Scheme*

For the bacterial inoculation process as described, it is preferable to separate the large solids upstream of the BIDA<sup>®</sup> System. If too many solids accumulate in the wood shavings, a film may form and cause puddling, odors, or anaerobic conditions instead of the aerobic environment that the system needs to flourish.

Therefore, typical process conveyance of wastewater in a BIDA<sup>®</sup> System may consist of the following:



Primary solid separator may refer to equipment such as parabolic screens, rotatory screens, and/or dissolved air flotation (DAF) systems. The equipment to be used is dependent upon influent water quality characteristics, specifically levels of TSS and oils and grease. Influent wastewater to the BIDA System should not have TSS levels exceeding 800 mg/L nor oil and grease levels greater than 200 mg/L.

Tertiary disinfection may refer to systems and equipment such as chlorine decanters, ultraviolet germicidal irradiation (UV), or reverse osmosis. The equipment to be used is dependent upon 1) effluent quality from the BIDA<sup>®</sup> System 2) discharge requirements and/or, if applicable, 3) water quality requirements for reuse. The effluent from the BIDA<sup>®</sup> System has very low absorption (is transparent) which permits the elimination of pathogenic microorganisms when using any tertiary disinfection.

BioFiltro employs chlorination disinfection for 45 sanitary waste systems operating in Chile and UV disinfection for the 6 sanitary waste facilities operating in New Zealand.

### **3. INDUSTRY EXPERIENCE**

The BIDA<sup>®</sup> System is operating in approximately 130 facilities worldwide, processing water from a diverse client base and of wastewater quality characteristics; namely food processors, wineries, aquaculture centers, slaughterhouses, livestock, and sanitary waste. The largest BIDA<sup>®</sup> System filters approximately two (2) million gallons per day, or 2MGD, for a fruit processor in central Chile and effluent from the facility is reutilized for crop irrigation.

Systems are operating on Antarctica (Chilean Air Force Base) and in the Atacama Desert (mining town) and have demonstrated any significant hindrance to operating in extreme climates.

In the United States, BioFiltro has been operating since 2013; executed 7 pilot studies; installed 5 full-scale commercial facilities; and is in the midst of permitting 2 more full-scale facilities.

For slaughterhouses, the BIDA<sup>®</sup> System is currently operating in 8 plants in Chile. The oldest slaughterhouse facility was constructed in 2002 and filters approximately 100,000 gallons per day (GPD). The largest cattle facility filters 200,000 GPD and was constructed in 2007 while the largest poultry facility filters 300,000 GPD and was constructed in 2006.

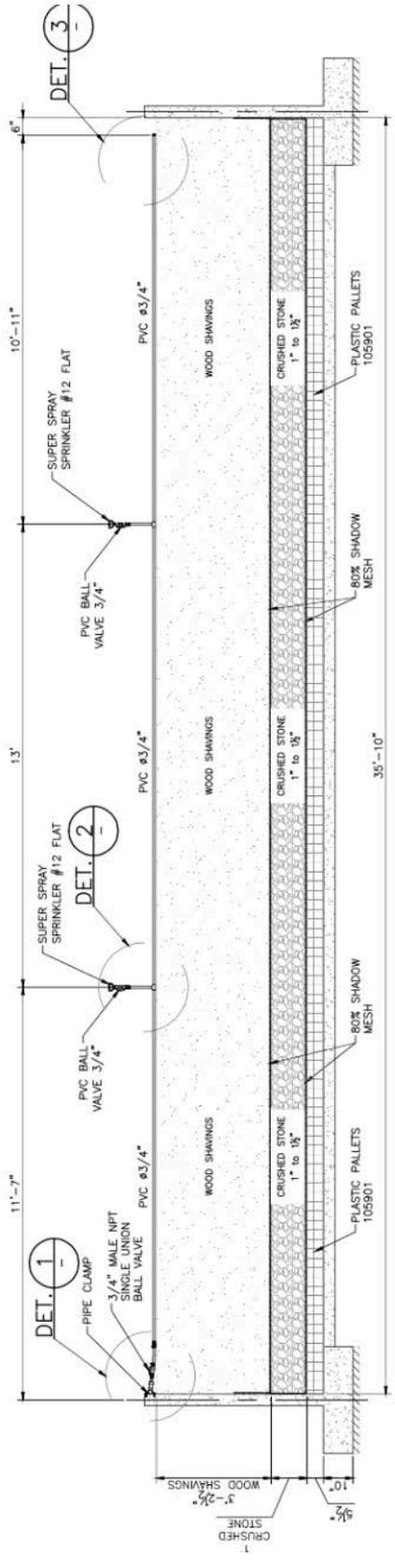
Examples of water quality samples are provide below. Industrial discharge requirements for the City of Brawley are included in the columns to the right so as to enable the reader to compare effluent from the BIDA® System with California requirements.

				<i>California Average</i>	<i>California Instant</i>	<i>Chile Irrigation Limit</i>
<b>Bavaria</b>	<b>6/12/15</b>	<b>12/23/14</b>	<b>4/22/14</b>			
BOD	113	50	29	76	250	300
TSS	76	77	58	180	250	150
TN	35	25	30		73	75
Ammonia as Nitrogen	20	13	17	30	50	
O&G	11	<5	12		40	50
pH	7.51	7.06	7		6 to 9	

All Chile Tests Are Instant

															<i>California Average</i>	<i>California Instant</i>	<i>Chile River Limit</i>
<b>Faenagro</b>	<b>2/19/16</b>	<b>3/12/15</b>	<b>4/17/14</b>	<b>11/13/14</b>	<b>1/5/12</b>	<b>2/6/12</b>	<b>3/6/12</b>	<b>4/3/12</b>	<b>5/24/12</b>	<b>7/10/12</b>	<b>8/7/12</b>	<b>9/28/12</b>	<b>10/9/12</b>	<b>11/20/12</b>			
BOD (mg/L)	53	11	30	29	15	14	6	28	12	11	28	8	5	49	76	250	35
TSS (mg/L)	8	9	8	8	21	19	14	13	18	11	13	<5	<5	15	180	250	80
TN (mg/L)	24	37	34	14	11	12	8	8	27	16	43	10	8	28		73	50
Ammonia as Nitrogen															30	50	
O&G (mg/L)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	7		40	20
pH	5.11		6.9	7.45	7.26									7.33	6.99	6 to 9	6 to 8.5

All Tests Are Instant



DET. 3

DET. 2

DET. 1

SECTION 1  
SCALE 1:25  
2-04

**APPENDIX B**  
**LAND-APPLICATION WATER BALANCE ANALYSIS**  
(Provost & Pritchard 2016)

August 12, 2016

**TECHNICAL MEMORANDUM**

Matias Sjogren  
BioFiltro, USA  
WET Center  
2911 E. Barstow Ave., M/S OF 144  
Fresno, CA, 93740

Re: One World Beef – Brawley, California  
Biofiltro Project – Land Application Water Balance Calculations

Dear Matias:

This technical memo was prepared for the Biofiltro One World Beef project in Brawley, California. It is understood that the Biofiltro project is intended to replace an existing digester wastewater pretreatment system.

## **A. WASTEWATER APPLICATION ANALYSIS**

The Regional Water Quality Control Board (**Regional Board**) oversees the land application of food processing wastewater. The guidelines of the Regional Board state that the wastewater must be beneficially used. The reuse of process wastewater is of great benefit on both a short term and long term basis.

### **1. Wastewater Application Area**

Wastewater will be used to supplement surface and/or groundwater supplies and will also provide some nutrients to the crops. Distributing wastewater evenly and efficiently over a field is critical to the success of a wastewater reuse system. A wastewater reclamation area water balance was performed to determine the amount of wastewater that can agronomically applied to the 140 acres.

### **2. Wastewater Parameters**

Wastewater parameters and constituent concentrations after treatment by the Biofiltro system were provided by One World Beef and Biofiltro as projected estimates and are listed in the following table.

Note: Fixed Dissolved Solids (**FDS**) and Electrical Conductivity (**EC**) was estimated from correlations of other beef packer wastewater results in relation to a TDS level of 2,100 mg/l.

### Wastewater Parameters & Constituents

Parameter & Constituent	Projected Discharge	Units	Notes
Land Application Area	140	Acres	Provided by OWB or Biofiltro
Land Application Area - Predominant Soil Map Unit	Imperial Silty Clay (114)	--	USDA-NRCS Imperial Soil Survey
Soil Available Water Holding Capacity	4.15	Inches in rootzone	8.3 inches per 60 inches of soil
Crop	Bermuda Grass	--	Provided by OWB or Biofiltro
Bermuda Grass - Rootzone Depth	2.5	feet	USDA NRCS
Bermuda Grass- Evapo-transpiration	84.23	Inches/year	USBR ET Lower Colorado River
Bermuda Grass – Nitrogen Utilization	225	lbs/ac/year	Western Fertilizer Handbook
Design Wastewater Production (Workday)	200,000	gpd	Provided by OWB or Biofiltro
Pond Storage Capacity (Ponds 2 & 3)	9,100,000	gallons	Provided by OWB or Biofiltro
Biochemical Oxygen Demand (BOD <sub>5</sub> )	100	mg/l	Provided by OWB or Biofiltro
Total Suspended Solids (TSS)	100	mg/l	Provided by OWB or Biofiltro
Total Nitrogen	50	mg/l	Provided by OWB or Biofiltro
Total Dissolved Solids (TDS)	2,100	mg/l	Provided by OWB or Biofiltro
Fixed Dissolved Solids (FDS)	1,226	mg/l	Estimated from correlations with other similar beef packers
Electrical Conductivity (EC)	2,838	umhos/cm	Estimated from correlations with other similar beef packers
Leaching Fraction	5.3	Inches	Calculated based on crop salt tolerance & EC of Wastewater
Salt Loading Guideline (without drainage)	2,000	lbs/acre/year	Single Crop Water Board Guideline
BOD <sub>5</sub> Loading	100	Lbs/acre/day	EPA "Pollution Abatement in the Fruit and Vegetable Industry Volume 3" page 66 Table IV-3 BOD Loading Rates

### 3. Constituent Loading

A detailed wastewater reclamation area water balance calculation (see attached) was performed to determine impacts of various water volumes and quality levels of wastewater on the dedicated reclamation area.

Biochemical Oxygen Demand (**BOD<sub>5</sub>**) and nutrient loading rates were calculated using the projected average monthly wastewater concentrations and the methods and formula described in the EPA Process Design Manual "Land Treatment of Municipal Wastewater" pages 4-1 to 4-35 and 5-1 to 5-21. BOD<sub>5</sub> loading must be less than or equal to 100 lbs/ac/day, as

recommended in accordance with EPA publication “Pollution Abatement in the Fruit and Vegetable Industry Volume 3” page 66 Table IV-3 BOD Loading Rates.

According to the Western Fertilizer Handbook, Seventh Edition published by the California Fertilizer Association, Table 4-1 page 63, the Bermuda nitrogen utilization rates is noted.

FDS is a measure of the fixed dissolved solids or inorganic salts in the wastewater. Because these salts don’t provide significant nutrient benefits to plants, they are a limiting factor. Based on the application area, the 5,430 lbs/acre/yr loading rate is well above the 2,000 lbs/acre/yr typically allowed annually for a single cropped field. However because a salt tolerant crop is being irrigated, a leaching requirement is applied, and a subsurface drainage system is utilized to remove salts from the rootzone, a higher salt loading rate is acceptable.

**Water Balance Calculations  
140 Acres of Bermuda Grass**

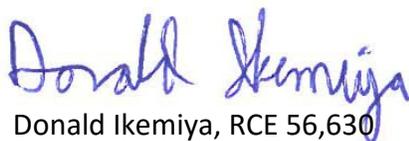
Condition	Results	Units	Notes
Land Application Area	140	acres	Farmed acres
Crop	Bermuda Grass	--	--
Total Wastewater Production (Work Day)	248,070	gpd	Based on leaching requirement limit and 312 working days/year
Total Wastewater Production (Calendar Day)	212,049	gpd	Based on leaching requirement limit and spread over 365 days/year
Total Wastewater Land Applied	228.1	ac-ft/yr	26% of applied. Includes surface rainwater onto ponds less pond evaporation
Effective Rainfall	0.9	ac-ft/yr	Small contribution towards total crop needs
Fresh Irrigation Water Land Applied	661.6	ac-ft/yr	74% of applied
Leaching Requirement	5.30	in/yr	In conjunction with subsurface drainage system
BOD <sub>5</sub> Loading – Ave.	1.4	lbs/ac/day	Very Good – Well within the 100 lb/ac/day allowed
TSS Loading – Ave.	1.4	lbs/ac/day	Very Good – No loading limit. But same calculation as BOD <sub>5</sub> and thus the same result
Nitrogen Loading – Overall Average	221	lbs/ac/yr	Within crop need of 225 lbs/ac/yr
FDS Salt Loading – Overall Average	5,430	lbs/ac/yr	FDS loading is above 2,000 lb/ac/year but as mentioned, is sustainable

## B. CONCLUSION

Based upon wastewater flow and concentration information, it is determined that the reuse of wastewater on the reclamation area should be in compliance with current agronomic and regulatory requirements.

Please note that all values and calculations are based on preliminary projections, and results from actual operations will need to be determined later.

Respectfully,

  
Donald Ikemiya, RCE 56,630



**ONE WORLD BEEF**  
**Wastewater Reclamation - Land Application**  
**Water & Constituent Loading Budget**  
**Bermuda Grass - Normal Year Rainfall**

**Biofiltro Pretreatment - 140 ac - 100 BOD<sub>5</sub> - 50 TN - 1,226 IDS**

**DATA:**

Month	Number of Days per Month	Working Days per Month	Normal Year		ET		BOD Ave. Applied (mg/l)	Total Nitrogen Applied (mg/l)	FDS Salt Applied (mg/l)	Irrigation Nitrogen (mg/l)	Irrigation Salt (mg/l)
			Rainfall (in/month)	Evaporation (in/month)	Bermuda (in/month)	(in/month)					
January	31	26	0.57	2.81	0.00		100	50	1,226	0.0	0
February	28	24	0.52	3.75	0.08		100	50	1,226	0.0	0
March	31	26	0.31	5.86	5.10		100	50	1,226	0.0	0
April	30	26	0.09	8.03	6.42		100	50	1,226	0.0	0
May	31	27	0.02	10.37	8.75		100	50	1,226	0.0	0
June	30	26	0.03	11.46	8.96		100	50	1,226	0.0	0
July	31	27	0.23	11.72	8.69		100	50	1,226	0.0	0
August	31	27	0.46	10.01	8.28		100	50	1,226	0.0	0
September	30	26	0.37	8.39	6.51		100	50	1,226	0.0	0
October	31	26	0.22	6.22	0.49		100	50	1,226	0.0	0
November	30	25	0.27	3.54	0.00		100	50	1,226	0.0	0
December	31	26	0.53	2.07	0.00		100	50	1,226	0.0	0
<b>Total</b>	<b>365</b>	<b>312</b>	<b>3.62</b>	<b>84.23</b>	<b>53.28</b>	<b>0</b>	<b>100</b>	<b>50.0</b>	<b>1,226.0</b>	<b>0.0</b>	<b>0.0</b>

Work Day Effluent Production = **248,070** gpd  
 Calendar Day Effluent Production = **212,049** gpd

Pond 2 Wet Area = 1.41 acres  
 Pond 3 Wet Area = 2.58 acres  
 Pond 2 & 3 Storage = **9,100,000** gal  
 Pond Percolation Rate = **0.00** in/day

Approx. Bermuda Area = **140.0** acres  
 Bermuda Rootzone AWHC = **4.15** inch

**STORAGE POND CALCULATIONS:**

Month	Effluent Produced (gal/month)	Effluent Exported (gal/month)	Effluent to Ponds (gal/month)	Surface Rainfall (gal/month)	Surface Evaporation (gal/month)	Pond Percolation (gal/month)	Monthly Available (gal/month)	Cumulative Available (gal/month)
January	6,449,831	0	6,449,831	21,824	107,588	0	6,364,067	25,051,600
February	5,953,690	0	5,953,690	19,910	143,578	0	5,830,022	30,881,622
March	6,449,831	0	6,449,831	11,869	224,365	0	6,237,335	37,118,957
April	6,449,831	0	6,449,831	3,446	307,449	0	6,145,828	43,264,785
May	6,697,901	0	6,697,901	766	397,042	0	6,301,625	49,566,410
June	6,449,831	0	6,449,831	1,149	438,775	0	6,012,205	55,578,615
July	6,697,901	0	6,697,901	8,806	448,730	0	6,257,977	61,836,592
August	6,697,901	0	6,697,901	17,612	383,258	0	6,332,255	68,168,847
September	6,449,831	0	6,449,831	14,166	321,233	0	6,142,764	74,311,611
October	6,449,831	0	6,449,831	8,423	238,149	0	6,220,105	6,220,105*
November	6,201,760	0	6,201,760	10,338	135,538	0	6,076,560	12,296,665
December	6,449,831	0	6,449,831	20,292	79,255	0	6,390,868	18,687,533
<b>Total</b>	<b>77,397,970</b>	<b>0</b>	<b>77,397,970</b>	<b>138,601</b>	<b>3,224,960</b>	<b>0</b>	<b>74,311,611</b>	<b>74,311,611</b>

\* Start at 0 Stored October 1st

**RECLAMATION AREA:**

Month	Cumulative Available (gal/month)	Bermuda 140.0 acres Irrigation Application Efficiency = 75%										BOD Loading			Nitrogen Loading			Salt Loading		
		Effluent Applied (gal/month)	Effluent Applied (in)	Effective Rainfall (in)	Fresh Irrigation (in)	Gross Crop Need (in)	Soil Moisture Start (in)	Soil Moisture End (in)	Percolation & Leaching > 4.15 in	Running Pond Volume (gallons)	Total Weight (lbs/month)	Loading Applied (lbs/ac/day)	Wastewater Applied (lbs/month)	Irrigation Applied (lbs/month)	Total Applied (lbs/ac/month)	Total Weight (lbs/month)	Irrigation Applied (lbs/month)	Total Applied (lbs/ac/month)		
January	25,051,600	6,364,067	1.67	0.00	0.00	0.00	4.15	5.82	1.67	0	5,310	1.5	2,655	0.00	19	65,106	0.00	465		
February	30,881,622	5,830,022	1.53	0.00	0.00	0.11	4.15	5.57	1.42	0	4,865	1.4	2,432	0.00	17	59,643	0.00	426		
March	37,118,957	6,237,335	1.64	0.00	5.16	6.80	4.15	4.15	0.00	0	5,205	1.4	2,602	0.00	19	63,809	0.00	456		
April	43,264,785	6,145,828	1.62	0.00	6.94	8.56	4.15	4.15	0.00	0	5,128	1.4	2,564	0.00	18	62,873	0.00	449		
May	49,566,410	6,301,625	1.66	0.00	10.01	11.67	4.15	4.15	0.00	0	5,258	1.4	2,629	0.00	19	64,467	0.00	460		
June	55,578,615	6,012,205	1.58	0.00	10.37	11.95	4.15	4.15	0.00	0	5,017	1.4	2,508	0.00	18	61,506	0.00	439		
July	61,836,592	6,257,977	1.65	0.00	9.94	11.59	4.15	4.15	0.00	0	5,222	1.4	2,611	0.00	19	64,021	0.00	457		
August	68,168,847	6,332,255	1.67	0.00	9.37	11.04	4.15	4.15	0.00	0	5,284	1.4	2,642	0.00	19	64,781	0.00	463		
September	74,311,611	6,142,764	1.62	0.00	4.92	8.68	4.15	2.01	0.00	0	5,126	1.4	2,563	0.00	18	62,842	0.00	449		
October	6,220,105	6,220,105	1.64	0.08	0.00	0.65	2.01	3.08	0.00	0	5,190	1.4	2,595	0.00	19	63,633	0.00	455		
November	12,296,665	6,076,560	1.60	0.00	0.00	0.00	3.08	4.68	0.53	0	5,071	1.4	2,535	0.00	18	62,165	0.00	444		
December	18,687,533	6,390,868	1.68	0.00	0.00	0.00	4.15	5.83	1.68	0	5,333	1.5	2,666	0.00	19	65,380	0.00	467		
<b>Total</b>	<b>74,311,611</b>	<b>19.56</b>	<b>0.08</b>	<b>56.71</b>	<b>71.05</b>	<b>5.30</b>	<b>61.8</b>	<b>100 lb/ac/day</b>	<b>225 lbs/ac/yr</b>	<b>2,000 lbs/ac/yr</b>	<b>62,009</b>	<b>1.4</b>	<b>31,002</b>	<b>0.0 Total</b>	<b>221</b>	<b>760,226</b>	<b>0.0 Total</b>	<b>5,430</b>		

Percent of Total = **26%** ac-ft      **0.9** ac-ft      **0%**      **74%**      Leaching Fraction of 5.3"

Annual Water Balance Summary (Gallons)	
Maximum Pond Storage Needed =	6,000,000
Pond Storage Available =	9,100,000
Excess Storage =	<b>3,100,000</b>
Total Effluent Production =	<b>77,397,970</b>
Total Effluent Exported =	0
Total Pond Surface Rainfall =	138,601
Total Pond Evaporation =	-3,224,960
Total Pond Percolation =	0
Effluent Applied to Corn/Wheat =	0
Effluent Applied to Alfalfa =	-74,311,611
Check Balance =	<b>77,397,970</b>

OK  
OK  
OK

	Bermuda
Crop Water Needs	OK
Deep Percolation/Leaching	OK
Total BOD Loading	OK
Total Nitrogen Loading	OK
Total Salt Loading	OK

**APPENDIX C**  
**CARB OFFROAD EMISSIONS ESTIMATION PROGRAM**

Description	CalEEMod Category	Total # Devices	HP from CalEEMod (User's Guide App. D)	Load Factor from CalEEMod (User's Guide App. D)	Hours of Operation per Device (Total for Project)	Emission Factors <sup>2</sup>						Total Project Emissions <sup>3</sup>											
						CO (g/bhp-hr)	NOx (g/bhp-hr)	PM10 (g/bhp-hr)	SOx (g/bhp-hr)	ROG (g/bhp-hr)	CO2 (g/bhp-hr)	CO (tons)	NOx (tons)	PM10 (tons)	SOx (tons)	ROG (tons)	CO2 (tons)	CO (lb/day)	NOx (lb/day)	PM10 (lb/day)	SOx (lb/day)	ROG (lb/day)	CO2 (lb/day)
Low-Bed Transport <sup>1</sup>	EMFAC T7 HHDT	1			30	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	0.00023	0.00034	0.00005	0.00243	0.00004	0.56	0.02	0.03	0.00	0.19	0.00	44.90
Asphalt Paver	Pavers	1	126	0.42	80	3.08023	4.87397	0.2422	0.0049	0.4332	506.5401	0.01437	0.02275	0.00113	0.00002	0.00202	2.36	1.15	1.82	0.09	0.00	0.16	189.11
Vibratory Drum Compactor (Roller)	Rollers	1	81	0.38	160	3.75537	5.80563	0.4275	0.0049	0.6282	508.1987	0.02039	0.03152	0.00232	0.00003	0.00341	2.76	1.63	2.52	0.19	0.00	0.27	220.70
Man Lift/Extension-Fork	Forklifts	4	89	0.20	200	4.02311	6.22192	0.5203	0.0049	0.7229	505.5833	0.06315	0.09766	0.00817	0.00008	0.01135	7.94	5.05	7.81	0.65	0.01	0.91	634.88
Concrete pump	Pumps	1	84	0.74	100	3.523	4.478	0.325	0.006	0.610	568.299	0.02414	0.03068	0.00223	0.00004	0.00418	3.89	1.93	2.45	0.18	0.00	0.33	311.51
Excavators	Excavators	2	163	0.38	200	3.15771	4.08095	0.2008	0.0049	0.3575	506.495	0.08624	0.11145	0.00548	0.00013	0.00976	13.83	6.90	8.92	0.44	0.01	0.78	1106.61
Drilling Machine	Bore/drill rigs	1	206	0.50	80	1.13299	2.9021	0.0852	0.0048	0.1925	502.128	0.01029	0.02636	0.00077	0.00004	0.00175	4.56	0.82	2.11	0.06	0.00	0.14	364.86
P.U. Trucks <sup>1</sup>	EMFAC LDT	2			192	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	0.00018	0.00072	0.00020	0.00633	0.00002	1.46	0.01	0.06	0.02	0.51	0.00	116.89
Graders	Graders	1	175	0.41	80	3.91624	8.24966	0.4635	0.005	0.8097	516.1305	0.02478	0.05220	0.00293	0.00003	0.00512	3.27	1.98	4.18	0.23	0.00	0.41	261.25
Cranes	Cranes	1	226	0.29	30	2.5822	7.38068	0.3349	0.0049	0.6229	507.1552	0.00560	0.01600	0.00073	0.00001	0.00135	1.10	0.45	1.28	0.06	0.00	0.11	87.93
Front End Loaders	Tractor/Loader/Backhoe	4	98	0.37	200	3.81146	5.14235	0.3959	0.0049	0.538	511.3456	0.12187	0.16443	0.01266	0.00016	0.01720	16.35	9.75	13.15	1.01	0.01	1.38	1308.03
Mechanic Truck <sup>1</sup>	EMFAC MDT	1			192	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	0.00008	0.00030	0.00010	0.00316	0.00001	0.73	0.01	0.02	0.01	0.25	0.00	58.30
Subtotal												0.37	0.55	0.04	0.01	0.06	58.81	29.70	44.35	2.94	1.00	4.50	4704.97

<sup>1</sup> Assume on-road vehicles travel on site at 10 mph. Emission factors for these vehicles are referenced in the table below.

<sup>2</sup> Factors obtained from the OFFROAD model, with factors based on the statewide inventory of construction equipment.

<sup>3</sup> Pounds per day assumes a basis of 5 weeks, 5 days a week, or 25 days.

Haul Trucks	Round Trip Distance Traveled - Paved Road	Distance on Unpaved Road	No. of Round Trips	CO (lb/VMT)	NOx (lb/VMT)	PM10 (lb/VMT)	SOx (lb/VMT)	ROG (lb/VMT)	CO2 (lb/VMT)	CO (tons)	NOx (tons)	PM10 (tons)	SOx (tons)	ROG (tons)	CO2 (tons)	CO (lb/day)	NOx (lb/day)	PM10 (lb/day)	SOx (lb/day)	ROG (lb/day)	CO2 (lb/day)	
<i>Import</i>																						
Class II/V Cement	30		31	0.001506	0.002293	0.000317	0.016191	0.000297	3.741426	0.00070	0.00107	0.00015	0.00753	0.00014	1.74	0.06	0.09	0.01	0.60	0.01	139.18	
Hot Mix Asphalt	30		20	0.001506	0.002293	0.000317	0.016191	0.000297	3.741426	0.00045	0.00069	0.00010	0.00486	0.00009	1.12	0.04	0.06	0.01	0.39	0.01	89.79	
<i>Mobilization/Demobilization</i>																						
Equipment Delivery	630		5	0.001506	0.002293	0.000317	0.016191	0.000297	3.741426	0.00237	0.00361	0.00050	0.02550	0.00047	5.89	0.19	0.29	0.04	2.04	0.04	471.42	
<i>EMFAC Data</i>																						
LDT				0.000093	0.000374	0.000105	0.003295	0.000012	0.76098													
MDT				0.000080	0.000313	0.000105	0.003287	0.000010	0.75913													
T7				0.001506	0.002293	0.000317	0.016191	0.000297	3.74143													
Subtotal											0.00	0.01	0.00	0.04	0.00	8.75	0.28	0.43	0.06	3.03	0.06	700.39
<b>TOTAL</b>											<b>0.37</b>	<b>0.56</b>	<b>0.04</b>	<b>0.05</b>	<b>0.06</b>	<b>67.57</b>	<b>29.99</b>	<b>44.78</b>	<b>3.00</b>	<b>4.03</b>	<b>4.55</b>	<b>5405.37</b>
Imperial County APCD CEQA Thresholds											N/A	N/A	N/A	N/A	N/A	N/A	550	55	150	150	55	N/A

**APPENDIX D**  
**QUERY RESULTS FOR SPECIAL-STATUS SPECIES**

Table D-1. Summary of Special Status Species Potential Occurrence in the Project Area

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Potential to Occur on Site	Rationale
<b>Plants</b>							
<i>Abronia villosa</i> var. <i>Aurita</i>	chaparral sand verbena	-	-	1B.1	Sandy soils in chaparral, coastal scrub and desert dunes. Elev: 246-5,249 ft (75-1,600 m). Blooms: Jan-Sep (CNPS 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Euphorbia abramsiana</i>	Abrams' spurge	-	-	2B.2	Sandy soils in Mojavean and Sonoran desert scrub. Elev: -16-3,002 ft (-5-915 m). Blooms: Aug-Nov (CNPS 2016).	N	Suitable habitat not present on the Site. The highly disturbed nature of desert scrub land, located along McNeal ditch, precludes presence of this species.
<i>Nama stenocarpa</i>	mud nama	-	-	2B.2	Marshes and swamps on lake margins and riverbanks. Elev: 16-1,640 ft (5-500 m). Blooms: Jan-Jul (CNPS 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Pholisma sonorae</i>	sand food	-	-	1B.2	Desert dunes and sandy Sonoran desert scrub. Elev: 0-656 ft (0-200 m). Blooms: Mar-Jun (CNPS 2016).	N	Suitable habitat not present on or surrounding the Site.
<b>Fish</b>							
<i>Cyprinodon macularis</i>	desert pupfish	FE	SE		Habitats include clear, shallow waters with soft substrates associated with cienegas, springs, streams, margins of lakes and rivers, shoreline pools, and irrigation drains and ditches below 5,200 feet (1,585 m.). In California, occurs only in two streams tributary to, and in shoreline pools and irrigation drains of, the Salton Sea (USFWS 2010).	N	Outside species range. Canal/ditches adjacent to Site do not provide suitable habitat.
<i>Xyrauchen texanus</i>	razorback sucker	FE	SE, FP		Currently found in the Green River, upper Colorado and San Juan River basins; as well as the lower Colorado River between Lake Mead and Mohave, and in small tributaries of the Gila River (USFWS 2012).	N	Outside species range. Canal/ditches adjacent to Site do not provide suitable habitat.
<b>Amphibians</b>							
<i>Incilius alvarius</i>	Sonoran desert toad	-	SSC		Extirpated from California. Has not been observed since 1955. Formerly inhabited the lower Colorado River and irrigated lowlands in Imperial County (Nafis 2016).	N	No longer present in California. Outside known species range.
<i>Lithobates pipiens</i>	northern leopard frog	-	SSC		Inhabits grassland, wet meadows, potholes, forests, woodland, brushlands, springs, canals, bogs, marshes, reservoirs. Generally prefers permanent water with abundant aquatic vegetation. From sea level to 11,000 ft. (3,350 m.) (Nafis 2016).	N	Outside known species range (Nafis 2016).
<i>Lithobates yavapaiensis</i>	lowland leopard frog	-	SSC		Extirpated from California. Formerly found in streams, river side channels, springs, ponds, stock ponds in desert scrub, grassland, woodland, and Pinyon Juniper (Nafis 2016).	N	No longer present in California. Outside known species range.
<b>Reptiles</b>							
<i>Phrynosoma mcallii</i>	flat-tailed horned lizard	FCE	SSC		Sandy desert hardpan or gravel flats with scattered sparse vegetation of low species diversity. Most common in areas with high density of harvester ants and fine windblown sand. From below sea level to around 820 ft (Nafis 2016).	N	The developed and heavily disturbed nature of Site likely precludes presence of this species. In addition, minimal ground disturbance is proposed for the Project, so impacts to species unlikely.
<i>Uma notata</i>	Colorado Desert fringe-toed lizard	-	SSC		Sparsely-vegetated arid areas with fine wind-blown sand, including dunes, flats with sandy hummocks formed around the bases of vegetation, washes, and the banks of rivers. Needs fine, loose sand for burrowing. From below sea level to 1,600 ft. (490 m.) (Nafis 2016).	N	The developed and heavily disturbed nature of Site likely precludes presence of this species. In addition, minimal ground disturbance is proposed for the Project, so impacts to species unlikely.
<b>Birds</b>							
<i>Asio flammeus</i>	short-eared owl	-	SSC		Found in open, treeless areas with elevated sites for perches, and dense vegetation for roosting and nesting. Associated with perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Athene cunicularia</i>	burrowing owl	-	SSC		Open areas with mammal burrows. Habitats include dry open rolling hills, grasslands, fallow fields, sparsely vegetated desert scrub with gullies, washes, arroyos, and edges of human disturbed lands. Inhabit golf courses, airports, cemeteries, vacant lots, and road embankments, with friable soils (Bates 2006).	Y	Suitable habitat potentially present on the portion of the Site not developed. The proposed Project will not alter or impact habitat or species on adjacent land.
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	FT	SSC		Inland populations nest along barren to sparsely vegetated flats and along shores of alkaline and saline lakes, reservoirs, ponds, braided river channels, agricultural wastewater ponds, and salt evaporation ponds (Shuford and Gardali 2008).	N	No suitable habitat on Site. Although the McNeal Ditch and a few cement-lined agricultural drainages occur adjacent to the Site, the highly disturbed nature of land adjacent to these areas preclude adequate nesting habitat.

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Potential to Occur on Site	Rationale
<i>Charadrius montanus</i>	mountain plover	-	SSC		Frequents open plains with low, herbaceous or scattered shrub vegetation below 3,200 ft (1,000 m.). Does not breed in California, only winters (CDFW 2016). Frequently uses fallow, grazed, or burned sites (Shuford and Gardali 2008).	N	May use fields for overwintering, but would not be impacted by project activities.
<i>Chlidonius niger</i>	black tern	-	SSC		Uses fresh emergent wetlands, lakes, ponds, moist grasslands, and agricultural fields for breeding. Can use coastal wetlands and offshore habitats during migration (CDFW 2016).	N	May nest in agricultural fields. Project activities would not alter or impact habitat or species.
<i>Circus cyaneus</i>	northern harrier	-	SSC		Nest on the ground in patches of dense, tall vegetation in undisturbed areas. Breed and forage in variety of open habitats such as marshes, wet meadows, weedy borders of lakes, rivers and streams, grasslands, pastures, croplands, sagebrush flats and desert sinks (Shuford and Gardali 2008).	N	Suitable habitat not present on or surrounding the Site.
<i>Colaptes chrysoides</i>	gilded flicker	-	SE		Suitable habitat consists of desert riparian woodlands and giant cactus forests with snags for nest cavities (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Contopus cooperi</i>	olive-sided flycatcher	-	SSC		Preferred habitat is forest and woodland, with adjacent meadows, lakes or open terrain for foraging (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Empidonax traillii extimus</i>	Southwestern willow flycatcher	FE	SE		Breeds in relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes (e.g., reservoirs). Most of these habitats are classified as forested wetlands or scrub-shrub wetlands. Habitat requirements for wintering are not well known, but include brushy savanna edges, second growth, shrubby clearings and pastures, and woodlands near water (USFWS 2002).	N	Suitable habitat not present on or surrounding the Site.
<i>Falco peregrinus</i>	peregrine falcon	FD	SD, FP		Breeds near wetlands lakes, rivers, or other waters on cliffs, banks, dunes or mounds, mostly in woodland, forest and coastal habitats. Nest is a scrape on a depression or ledge in an open site. May use man-made structures, snags, or trees for nesting (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Gelochelidon nilotica</i>	gull-billed tern	-	SSC		Prefers sandy beaches for nesting, and forages over shallow waters, mudflats, grasslands, and croplands. Known to breed at the Salton Sea and near San Diego (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Haliaeetus leucocephalus</i>	bald eagle	FD	FP		Nests in large, old-growth, or dominant live tree with open branchwork, especially ponderosa pine. Requires large bodies of water or rivers with abundant fish, and adjacent snags (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Ixobrychus exilis</i>	least bittern	-	SSC		Common summer resident at Salton Sea and Colorado River in dense emergent wetlands near freshwater and in desert riparian (saltcedar scrub). Likely nests only in emergent wetlands. Rare in deserts and coastal lowlands (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Lanius ludovicianus</i>	loggerhead shrike	-	SSC		Breed in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground (Shuford and Gardali 2008).	N	Suitable habitat not present on or surrounding the Site.
<i>Laterallus jamaicensis coturniculus</i>	California black rail	-	ST, FP		Yearlong resident of saline, brackish, and fresh emergent wetlands (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Melanerpes uropygialis</i>	Gila woodpecker	-	SE		Found along the Colorado River, and locally near Brawley, Imperial Co. Occurs mostly in desert riparian and desert wash habitats, but also found in orchard-vineyard and urban habitats, particularly in shade trees and date palm groves (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Oreothlypis luciae</i>	Lucy's warbler	-	SSC		Breeds along the Colorado River, fairly common locally in a few other desert areas, and rare near Salton Sea. It occurs in desert wash and desert riparian habitats, especially those dominated by mesquite; also ranges into saltcedar and other thickets (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Pelecanus erythrorhynchos</i>	American white pelican	-	SSC		In California, nests only in large lakes in Klamath Basin. Roosts along water edges, beaches, sandbars, or old driftwood (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.

Scientific Name	Common Name	Federal Status	State Status	CNPS Rare Plant Rank	General Habitat Characteristics	Potential to Occur on Site	Rationale
<i>Pelecanus occidentalis californicus</i>	California brown pelican	FD	SD, FP		Warm coastal marine and estuarine environments. Rare inland, but sometimes found at the Salton Sea. Breeds almost exclusively on undisturbed islands adjacent to good marine fishing areas (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Piranga rubra</i>	summer tanager	-	SSC		Breed primarily in mature riparian woodland with extensive cottonwood canopy, some records of orchard nesting. Need tall, shady trees (Shuford and Gardali 2008).	N	Suitable habitat not present on or surrounding the Site.
<i>Pyrocephalus rubinus</i>	vermillion flycatcher	-	SSC		A yearlong resident along the Colorado River, especially in vicinity of Blythe, Riverside Co. Nesters inhabit cottonwood, willow, mesquite, and other vegetation in desert riparian habitat adjacent to irrigated fields, irrigation ditches, pastures and other open, mesic areas in isolated patches throughout central southern California (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Rallus longirostris yumanensis</i>	Yuma clapper rail	FE	ST, FP		Freshwater marshes dominated by cattail or bulrush. Occurs along the lower Colorado River and its tributaries, as well as along the banks of the Salton Sea (USFWS 2009).	N	Suitable habitat not present on or surrounding the Site.
<i>Rynchops niger</i>	black skimmer	-	-		Requires calm, shallow water for foraging, and sand bars, beaches, or dikes for roosting and nesting (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Setophaga petechia sonorana</i>	Sonoran yellow warbler	-	SSC		Breeds only along the lower Colorado River in California in willow and cottonwood riparian areas (Shuford and Gardali 2008).	N	Outside known species range, and suitable habitat not present on or surrounding the Site.
<i>Toxostoma crissale</i>	Crissal thrasher	-	SSC		Occupies dense thickets of shrubs or low trees in desert riparian and desert wash habitats (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Toxostoma lecontei</i>	Le Conte's thrasher	-	SSC		Occurs primarily in open desert wash, desert scrub, alkali scrub, and desert succulent shrub habitats, also in Joshua tree habitat with scattered shrubs. Commonly nests in dense, spiny shrubs or cacti (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Xanthocephalus xanthocephalus</i>	yellow-headed blackbird	-	SSC		Nest in marshes with tall, emergent vegetation (e.g., tules and cattails) adjacent to deepwater (Shuford and Gardali 2008).	N	Suitable habitat not present on or surrounding the Site.
<b>Mammals</b>							
<i>Lasiurus xanthinus</i>	western yellow bat	-	SSC		Associated with palm trees in valley foothill riparian, desert riparian, desert wash and palm oasis habitats below 2,000 ft (600 m) (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Macrotus californicus</i>	California leaf-nosed bat	-	SSC		Roosts in rocky, rugged terrain with mines and caves and occasionally in buildings and bridges. Forages over nearby flats and washes (CDFW 2016).	N	Suitable habitat not present on or surrounding the Site.
<i>Nyctinomops macrotis</i>	big free-tailed bat	-	SSC		Rock crevices in canyon settings in arid, high relief landscapes (Bolster 1998).	N	Suitable habitat not present on or surrounding the Site.
<i>Perognathus longimembris bangsi</i>	Palm Springs pocket mouse	-	SSC		Known from various vegetation communities, including creosote scrub, desert scrub, and grasslands, generally occurring on loosely packed or sandy soils with sparse to moderately dense vegetative cover. No longer occurs in areas of urban and agricultural development (Bolster 1998).	N	Suitable habitat not present on or surrounding the Site. The highly disturbed nature of desert scrub adjacent to McNeal ditch precludes adequate nesting habitat.
<i>Sigmodon hispidus eremicus</i>	Yuma hispid cotton rat	-	SSC		Found mostly near the Colorado River or along sloughs and marshes adjacent to the river in brushy or weedy areas; also in irrigated fields, and along ditches and canals in the Imperial Valley (Bolster 1998).	N	The nearest recorded occurrence over 10 miles away from the Site (CNDDDB, CDFW 2016). Although the McNeal Ditch and a few cement-lined agricultural drainages occur adjacent to the Site, the highly disturbed nature of land adjacent to these areas likely preclude adequate habitat. Finally, minimal ground disturbance is proposed for the Project. Therefore, impacts to species unlikely.
<i>Taxidea taxus</i>	American badger	-	SSC		Open shrub, forest and herbaceous habitats with friable soils. Associated with treeless regions, prairies, park lands and cold desert areas. Range includes most of California, except the North Coast (CDFW 2016).	N	Heavily disturbed nature of Site and lack of vegetation likely precludes presence of this species. In addition, minimal ground disturbance is proposed for the Project; impacts to species unlikely.

**Key:**

**Status**

(FE) Federal Endangered  
 (FT) Federal Threatened  
 (FC) Federal Candidate  
 (FD) Federally Delisted  
 (SE) State Endangered  
 (ST) State Threatened  
 (SSC) State Species of Special Concern  
 (FP) Fully Protected

**CNPS Rare Plant Rank**

(1A) Presumed Extinct in California  
 (1B) Rare, Threatened, or Endangered in California and Elsewhere  
 (2) Rare, Threatened, or Endangered in California, But More Common Elsewhere  
 (3) More Species Information Needed  
 (4) Limited Distribution  
**Threat Ranks**  
 (0.1) Seriously threatened in California  
 (0.2) Fairly threatened in California  
 (0.3) Not very threatened in California