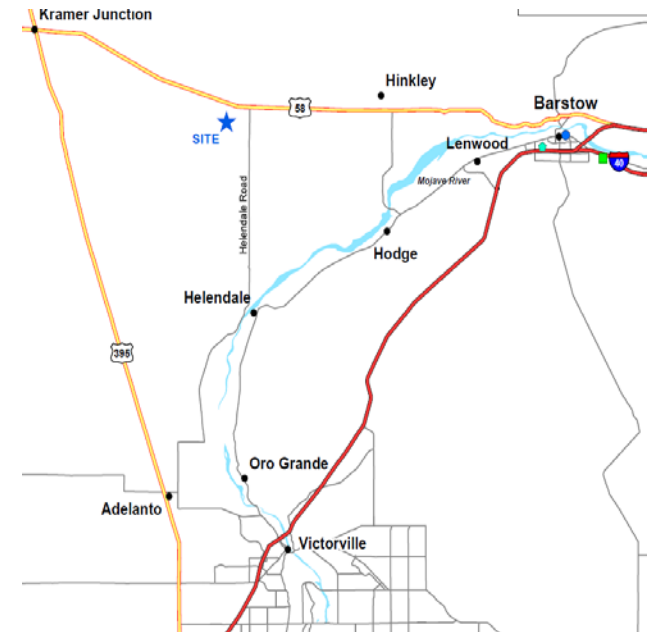


Permitting a Large Compost Facility in California

Chris Seney, PE
Denali Water Solutions

Compost Facility Overview

- Near Barstow, CA
- Siting/Permitting 2004-2012
- Opened in June 2012
- Open Windrow Composting
- 400,000 tons/year of biosolids, green material & inert material
- 80-acres on 160 acre parcel
- 8 miles from the nearest community
- “Close to the generators”
- Less expensive than current alternatives



Permit Overview & Timeline

| Permit/Approval | Description | Timeline |
|--|--|-----------------|
| Initial Study (IS) | CEQA | 2005-2006 |
| Environmental Impact Report (EIR) | CEQA | 2005-2010 |
| Conditional Use Permit (CUP) | SB County | 2005-2010 |
| Waste Discharge Requirements (WDR) | RWQCB | 2005-2010 |
| California Department of Fish & Game (CDFG) | Endangered Species | 2006-2011 |
| U.S. Fish & Wildlife (USFWS) | Endangered Species | 2006-2011 |
| Bureau of Land Management (BLM) | Right of Way / Endangered Species | 2006-2011 |
| CalRecycle/LEA | Solid Waste Compost Permit | 2005-2007 |
| MDAQMD | Equipment Specific Permit | 2012, 2015 |
| U.S. Army Corps of Engineers | Jurisdictional Determination | 2007 |
| San Bernardino County CUPA | Certified Unified Program Agency Annual Permit | Annual |
| Department of Food and Agriculture | Weighmaster License | Annual |
| Special Use Permit - San Bernardino County | Permit to Operate Facility | Annual |
| California Department of Food and Agriculture Compliance Agreement | CCR 3435 | Annual |
| Department of Industrial Relations 1 | Permit to Operate Air Pressure Tank | Annual |

CEQA Timeline

- Commence work on IS & EIR 2005
- EIR Adopted February 2007
- EIR Challenged March 2007
- Judge Issued Order April 2008
 - Identify and Analyze Water Supply
 - Further Analyze Economics of Enclosure
 - GHG analysis
- Final SEIR Adopted December 2009

RWQCB – WDR (Title 27)

- “Waste” Classification
 - Pursuant to CWC, section 13050,
 - Discharge a Designated Waste
- Waste Pile - Compost Pad (Engineered Pad)
- Surface Impoundments (2)
 - 1,000 year rain event, sumps & lysimeters
- Monitoring Well Network
- Financial Assurance (Closure and Corrective)
- Completed March 2010



RWQCB – General Order 2016

- State Water Board adopted a General Order for Composting Operations
- NOI Filed for coverage under General Order
- Rescission of WDR
 - Design exceeded requirements
- Return Financial Assurance
- Completed 2016

Endangered Species

- Habitat Conservation Plan (HCP)
 - Desert Tortoise (USFWS & CDFG)
 - Mohave Ground Squirrel (CDFG)
- BLM - ROW, Lead Agency
- CDFG Incidental Take Permit
- USFWS Biological Opinion
- Mitigation & Monitoring
 - 86.5 acres = 259.5 acres offset 3:1
 - Exclusion Fencing (6.5 miles)



MDAQMD

- Proposed Compost Rule (1133)
- Generator Permit to Operate
 - Tier 4
- Screen Permit to Operate
 - Tier 3



Denali Water Solutions

- Operate the City of Phoenix's new Turned Aerated Pile (TAP) composting facility (green and food waste)
- 220,000 tons per year
- Positive and negative aeration (biofilter)
- Capture and reuse all water onsite



Questions

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