



Contract Number

21-519

SAP Number

## Public Works – Solid Waste Management Division

<b>Department Contract Representative</b>	<u>Darren J. Meeka, Deputy Director</u>
<b>Telephone Number</b>	<u>(909) 386-8703</u>
<b>Contractor</b>	<u>Mammoth Mountain Ski Area, LLC</u>
<b>Contractor Representative</b>	<u>Denise Schneider</u>
<b>Telephone Number</b>	<u>(760) 934-2571 x3467</u>
<b>Contract Term</b>	<u>July 1, 2021 – June 30, 2026</u>
<b>Original Contract Amount</b>	<u>\$75,810.00</u>
<b>Amendment Amount</b>	<u></u>
<b>Total Contract Amount</b>	<u>\$75,810.00</u>
<b>Cost Center</b>	<u>6700004250</u>

**Briefly describe the general nature of the contract:** *Provide a five-year agreement for the disposal of dried biosolid waste by Mammoth Mountain Area Ski Area, LLC at the Barstow Sanitary Landfill. Gross revenue generated by this agreement is approximately \$75,810.00 over the contract term.*

**FOR COUNTY USE ONLY**

Approved as to Legal Form

**SEE ATTACHED**

Jolena Grider, Deputy County Counsel

Date \_\_\_\_\_

Reviewed for Contract Compliance

Andy Silao, P.E.

Date 6/15/2021

Reviewed/Approved by Department

Brendon Biggs, Director

Date 6-16-21



**Contract Number**

**SAP Number**

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Approved as to Legal Form

► Jolena Grider  
Jolena Grider, Deputy County Counsel

Date 6/14/21

Reviewed for Contract Compliance

► Andy Silao, P.E.

Date \_\_\_\_\_

Reviewed/Approved by Department

► Brendon Biggs, Director

Date \_\_\_\_\_

**COUNTY OF SAN BERNARDINO  
DEPARTMENT OF PUBLIC WORKS  
SOLID WASTE MANAGEMENT DIVISION**

**AGREEMENT FOR THE DISPOSAL OF BIOSOLIDS**

THIS AGREEMENT FOR THE DISPOSAL OF BIOSOLIDS ("Agreement") is made as of the 1<sup>st</sup> day of July, 2021, by and between the COUNTY OF SAN BERNARDINO, a political subdivision of the State of California ("County") and MAMMOTH MOUNTAIN SKI AREA, LLC, a California limited liability company ("Contractor").

**RECITALS**

- A. WHEREAS, County owns the San Bernardino County Solid Waste Disposal System;
- B. WHEREAS, Contractor is a California limited liability company under the laws of the State of California, located in Mono County;
- C. WHEREAS, Contractor desires to dispose of dried biosolids from their perk ponds at the County's Waste Disposal System;
- D. WHEREAS, pursuant to the County Code §33.08151 of Title 3, Division 3, Chapter 8, Article 9: OUT-OF-COUNTY REFUSE, refuse haulers (including operators of transfer stations, material recovery facilities or like facilities) or refuse generators may discharge solid waste generated in counties other than San Bernardino County at facilities within the County Solid Waste Disposal System, if and only to the extent provided for in a written contract entered into with the County allowing for such disposal, on payment of all fees applicable to the discharge of such solid waste, as specified in §16.0222 of the San Bernardino County Code (including as specified in the required written contract);
- E. WHEREAS, the County Solid Waste Disposal System is financed through fees received upon delivery to a landfill site as determined by the weight of the refuse and the County carefully manages the waste stream and acceptance for disposal of waste generated outside of the County in order to achieve optimum life of the disposal sites within the County's Solid Waste Disposal System;
- F. WHEREAS, the County Code recognizes the exportation of refuse generated by several west valley cities located in San Bernardino County to landfills located outside of this County, together with the expansion of landfilling capacity within the County's Solid Waste Disposal System, has created some excess capacity within the County's Solid Waste Disposal System and the County acknowledges that exportation of refuse continues to this day from many of those west valley cities;
- G. WHEREAS, the volume of the waste stream being delivered to the County's Solid Waste Disposal System from within the County is anticipated to decrease due to new and anticipated State mandated recycling

laws, and therefore, the County has determined that there is existing and future capacity at the Barstow Sanitary Landfill that allows for the acceptance of the Contractor's out-of-County waste;

- H. WHEREAS, the County is willing to accept Contractor's waste and requires an agreement to be entered into for this purpose pursuant to County Code;
- I. WHEREAS, the Board of Supervisors finds and determines that the County's Solid Waste Disposal System, including the Barstow Sanitary Landfill, is capable of supplying a limited amount of disposal service and that the County should exercise its discretion to enter into this Agreement with Contractor setting the amount of waste that may be disposed of at the Barstow Sanitary Landfill and the fee to be paid for such disposal; and
- J. WHEREAS, County and Contractor each find, determine, and declare that entering into this Agreement will promote the public peace, health, safety and welfare of the County.

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the County and Contractor hereby agree as follows:

## **1. DISPOSAL OF WASTE**

County agrees to accept Contractor's waste, and Contractor agrees to pay for the disposal of said waste for the period of time and in the amounts set forth below, at the County's landfill identified as the Barstow Sanitary Landfill ("Landfill"), located in Barstow, California.

## **2. TERM**

**2.1 Initial Term.** The Term of this Agreement shall be five (5) years. The obligations of the parties pursuant to this Agreement shall commence on July 1, 2021. The Agreement shall terminate at 11:59 p.m. on June 30, 2026, unless sooner terminated or extended as herein provided.

**2.2 Option to Extend.** Provided that Contractor is not in default hereunder, either at the time of exercise or at the time the extended Term commences, the County, at its sole discretion, shall have the option to extend the initial term up to five additional years on the same terms, covenants and conditions provided herein.

## **3. DISPOSAL FEES**

**3.1 Fee for Disposal of Biosolid Waste.** Contractor shall pay a disposal fee equal to the published gate rate for ordinary waste and the Special Handling Fee as described in the County's Fee Ordinance, Section 16.0222 (the fiscal year 2021-22 gate rate is \$47.94 per ton and the Special Handling Fee is \$53.14 per ton, for a total of \$101.08 per ton) for the immediate disposal of biosolids at the Barstow Sanitary Landfill.

**3.2 Late Payment Fees and Interest.** Contractor acknowledges that late payment by Contractor to County of all Fees will cause County to incur costs not contemplated by this Agreement and that the exact amount of such costs is extremely difficult and impracticable to fix. Such costs include, without limitation, administrative, processing, accounting, late charges and interest charges that may be imposed on County. Therefore, if County does not receive any payment of Fees due from Contractor within thirty (30) days after the date such Fee payment is due, Contractor shall pay to County an additional sum of fifteen percent (15%) of the overdue Fees as a late charge. The parties agree this late charge represents a fair and reasonable estimate of the costs County will incur by reason of late payment by Contractor. Acceptance of any late charge shall not constitute a waiver of Contractor's default with respect to the overdue amount, nor prevent County from exercising any of the other rights and remedies available to County. In addition to the late charge of fifteen percent (15%), Fees not paid when due shall bear simple interest from the due date at the rate of five hundredths of a percent (.05%) per day. **All late payments shall be made with certified funds and shall be credited in the following order: (1) to past due late charges; (2) to interest; and (3) to the balance of the accrued Fees.**

**3.5 Place and Method of Payment.** All checks shall be made payable to: County of San Bernardino and shall be submitted to: Department of Public Works, Administrative Services, 825 East Third Street, Room 207, San Bernardino, California 92415-0835. The Contract Number is the account number for this Agreement and must be noted on the front of the Contractor's check. The Fees and all other monetary obligations of the Contractor pursuant to this Agreement shall be paid in lawful money of the United States. **The County reserves the right to demand at any time that payment of Fees, late charges or interest be made with certified funds.**

**3.6 Security Deposit Requirements.** Contractor is required to submit a security deposit. The minimum initial security deposit will be determined by the County based upon the estimated charges for the first three (3) months using current rates and the Contractor's estimated average monthly tonnage to be disposed. After the account has been active for three (3) full calendar months, the account may be reviewed by the County and adjustments may be made to the required security deposit amount. Security deposit amounts will be reviewed and adjusted when:

- (a) Changes are warranted based upon the initial three (3) month review.
- (b) Changes are warranted based upon an annual review. NOTE: If the twelve (12) month average indicates that the deposit amount is too low, the deposit will be recalculated using the following formula: Multiply the twelve (12) month average times the current fee times three (3) months.
- (c) Fee adjustments are approved by the County Board of Supervisors.
- (d) An account has been delinquent in any month during the preceding year beyond thirty (30) days (per the Accounts Receivable Summary Report). NOTE: The security deposit will be adjusted by using the actual charges for the three (3) highest months in the last calendar year period.

**3.7 Security Deposit Instruments.** Contractor may choose to obtain a bond on the County's approved form to cover the requirement through a certified bonding agency, in which case the County will retain the

original bond form. Contractor may obtain a Certificate of Deposit or a Security or other payment for the County through a qualified institution, in which case the County will retain the deposit book. Contractor may have use of interest earned. Contractor may make a deposit in cash, which will be held in trust by the County until such time as the account is closed by either party or becomes delinquent. Zero (0) interest will be paid to the Contractor for cash funds held in trust by the County. Contractor may submit a Letter of Credit or other alternative security deposit instrument deemed acceptable by the County which will assure the County has access to appropriate cash resources if the deferred billing account becomes delinquent. Security deposits will be held as a guarantee for payment of monthly billings and shall be claimed only in the event that Contractor fails to pay timely for Contractor's use of County disposal facilities. Any security deposit claimed by the County, whether in whole or in part, must be immediately replaced or reinstated to the required amount within ten (10) business days. Failure to maintain the security deposit as required by the County will result in the termination of the Agreement, according to Section 10.2.

#### 4. WASTE

4.1 **Qualifying Solid Waste.** Biosolid waste is defined as solid organic matter recovered from a sewage treatment process. The waste which qualifies to be disposed of pursuant to the terms of this Agreement shall be only Qualifying Solid Waste that is:

- (a) Otherwise qualified to be disposed of at a County Landfill pursuant to all applicable federal, state and local laws and regulations;
- (b) Generated outside the boundaries of the County of San Bernardino (i.e., collected for disposal in a County other than the County of San Bernardino);
- (c) Generated by the perk ponds located and owned by the Contractor at Mammoth Mountain Ski Area; and
- (d) Dried biosolid material that has been tested and the analytical results indicate the material is suitable for disposal in a Class III Municipal Solid Waste Landfill, as per the attached Waste Acceptance Plan for the Barstow Sanitary Landfill (Exhibit A).

Qualifying Solid Waste that satisfies all of the above conditions may be disposed of pursuant to the provisions of this Agreement and shall be referred to as "**Qualifying Solid Waste.**"

4.2 **Amount Qualifying Solid Waste to be Delivered.** Beginning on July 1, 2021, the Contractor shall have the right to deliver, for each fiscal year July 1<sup>st</sup> through June 30<sup>th</sup> of the contract term, not more than one hundred and fifty (150) tons of Qualifying Solid Waste to the Disposal System under the provisions of this Agreement.

4.3 **Facility to be Utilized.** The Contractor shall deliver the Qualifying Solid Waste to the Barstow Sanitary Landfill, unless conditions exist not allowing delivery of solid waste to the Landfill. Contractor must notify the County's Scale Operations Supervisor II via telephone (909-386-9097 or 800-722-8004) within 24 hours of

delivering the material to the Landfill informing him/her of the day, approximate time of delivery, and the amount that will be delivered. Upon arrival at the Landfill, Contractor shall notify the Scale Operator that they are disposing of dried biosolids that require immediate burial. Note – All customers with loads that require immediate burial are subject to delays while site personnel arrange burial locations. Waste loads must be covered and the cover on the transport vehicle must remain in place until landfill staff directs the driver to remove the cover and load the waste.

**4.4 County Right of Refusal.** Notwithstanding any other provisions hereof, the County may refuse delivery of:

- (a) **Unacceptable Waste;** which means Hazardous Waste; hazardous substances as that term is defined in CERCLA, the Carpenter-Presley-Tanner Hazardous Substance Account Act (California Health and Safety Code Section 25300 et seq.), and Titles 22 and 26 of the California Code of Regulations and other regulations promulgated thereunder; any medical or infectious waste prohibited or restricted under any federal, state or local law from being received by or disposed of at the Disposal System; explosives, ordnance, highly flammable substances, and noxious materials and lead-acid batteries (except if delivered in minimal quantities); drums and closed containers; liquid waste, oil, human wastes; machinery and equipment from commercial or industrial sources, such as hardened gears, shafts, motor vehicles or major components thereof, agricultural equipment, trailers, marine vessels and steel cable; hot loads; and any waste which the Disposal System is prohibited from receiving under federal, state or local law.
- (b) **Hazardous Waste;** which means (i) any waste which by reason of its quality, concentration, composition or physical, chemical or infectious characteristics may do either of the following: cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness, or pose a substantial threat or potential hazard to human health or the environment, or any waste which is defined or regulated as a hazardous waste, toxic substance, hazardous chemical substance or mixture, or asbestos under applicable law, as amended from time to time including, but not limited to: (1) the Resource Conservation and Recovery Act and the regulations contained in 40 CFR Parts 260-281; (2) the Toxic Substances Control Act (15 U.S.C. Sections 2601 et seq.) and the regulations contained in 40 CFR Parts 761-766; (3) the California Health and Safety Code, Section 25117 (West 1992 & Supp. 1996); (4) the California Public Resources Code, Section 40141 (West 1996); and (5) future additional or substitute applicable law pertaining to the identification, treatment, storage or disposal of toxic substances or hazardous wastes; or (ii) radioactive materials which are source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. Section 2011 et seq.) and the regulations contained in 10 CFR Part 40.
- (c) **Qualifying Solid Waste** delivered at hours other than those provided in Section 5.1 hereof.
- (d) **Waste** that does not constitute **Qualifying Solid Waste**.

**4.5 Identification of Unacceptable Waste.** The County, or County's operations contractor, shall have the right (but not the duty or obligation) to inspect the vehicles of the Contractor or its haulers delivering material

to the Landfill, and may require that the Contractor or its hauler remove any Unacceptable Waste from such vehicle before it is unloaded. If the County or County's operations contractor determines that it is impractical to separate In-County and Out-of-County Qualifying Solid Waste from the waste described in Section 4.6 above in any vehicle, or if the Contractor or its hauler delivering such waste is unwilling to make such separation, or if any vehicle is carrying waste which may spill or leak, then the County or County's operations contractor may reject the entire vehicle, and the Contractor or its hauler shall forthwith remove or cause the removal of the entire delivery from the Landfill. The County or County's operations contractor may take all reasonable measures to prevent waste from being blown or scattered before and during unloading. The Contractor shall cause its haulers to observe and comply with applicable law, the operating rules and regulations of the County, and the provisions of this Agreement prohibiting the delivery of the waste described in Section 4.4 above to the Disposal System.

**4.6 Hazardous Waste and Hazardous Substances.** The parties acknowledge that the Disposal System has not been designed or permitted, and is not intended to be used in any manner or to any extent, for the handling, transportation, storage or disposal of Hazardous Waste or Hazardous Substances. Neither the County nor the Contractor shall countenance or knowingly permit the delivery of Hazardous Waste or Hazardous Substances to the Disposal System.

**4.7 Disposal of Unacceptable Waste and Hazardous Waste.** If Unacceptable Waste or Hazardous Waste is discovered in a vehicle at any landfill within the Disposal System, the driver of the vehicle will not be permitted to discharge the load. If a vehicle is observed unloading Unacceptable Waste or Hazardous Waste in the tipping area of the Landfill or any landfill within the Disposal System, County personnel or County's operations contractor will use reasonable efforts to assure that such material has been characterized, properly secured and its disposition resolved. The return or reloading onto the delivery vehicle of any Hazardous Waste, Prohibited Medical Waste or other waste requiring handling or transportation shall be conducted in accordance with applicable law. Whenever Hazardous Waste is detected at any landfill within the Disposal System, the County or County's operations contractor shall take immediate action in accordance with applicable law.

## **5. MISCELLANEOUS OPERATIONAL MATTERS**

**5.1 Operating Hours.** The County shall keep the Disposal System open for the receiving of Qualifying Solid Waste during such regular operating hours as may be established by the Department in the operating rules and regulations applicable to the Disposal System. The County shall utilize best efforts to maintain substantially similar hours, as are in effect as of July 1, 2021, for the receipt of waste through the term of this Agreement (subject to applicable law).

**5.2 Scales and Weighing.** The County shall operate and maintain permanent scales at the Disposal System. The County shall weigh all vehicles delivering waste by or on behalf of the Contractor (whether or not the County accepts such waste) and prepare a daily weight record with regard to such delivery.

**5.3 Service Coordinator.** The County and Contractor each shall designate in writing thirty (30) days prior to July 1, 2021 a person to transmit instructions, receive information and otherwise coordinate service matters



arising pursuant to this Agreement (each a "Service Coordinator"). Either party may designate a successor or substitute Service Coordinator at any time by notice to the other party.

## 6. INDEMNIFICATION

6.1 **Indemnity.** To the fullest extent permitted by law, Contractor shall indemnify, defend (at Contractor's sole cost and expense and with legal counsel approved by County, which approval shall not be unreasonably withheld), protect and hold harmless County, and all of its authorized representatives, designees, officers, consultants, agents, volunteers, successors and assigns, (collectively, the "Indemnified Parties"), from and against any and all claims (including, without limitation, claims for bodily injury, death or damage to property), demands, obligations, damages, actions, administrative actions, administrative orders, investigations, causes of action, suits, losses, judgments, fines, penalties, liabilities, costs and expenses (including, without limitation, attorneys' fees, disbursements and court costs, and all other professional, expert or consultants' fees and costs and County's general and administrative expenses) of every kind and nature whatsoever (individually, a "Claim"; collectively, "Claims") which may arise from or in any manner relate (directly or indirectly) to any work performed or services provided under this Agreement (including, without limitation, defects in workmanship or materials, or a release or threatened release of any hazardous substance or hazardous waste into the environment) or Contractor's presence or activities conducted on the Landfill (including, without limitation, the negligent and/or willful acts, errors and/or omissions of Contractor, its principals, officers, agents, employees, vendors, suppliers, consultants, subconsultants, subcontractors, anyone employed directly or indirectly by any of them or for whose acts they may be liable or any or all of them) regardless of any active or passive negligence or strict liability of an Indemnified Party. As used in this Agreement, the phrases "hazardous material," "hazardous substance" and "hazardous waste" shall coincide with the broadest definition thereof contained in any present or future federal or state laws (including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C.A. Section 9601 *et seq.*, as amended or superseded, and the regulations promulgated thereunder; the Resource Conservation and Recovery Act, 42 U.S.C.A. Section 6901 *et seq.*, as amended and superseded, and the regulations contained in 40 CFR Parts 260-281; the Toxic Substances Control Act (15 U.S.C. Sections 2601 *et seq.*) and regulations contained in 40 CFR Parts 761-766; the California Health and Safety Code, Section 25117 (West 1992 & Supp. 1996); the California Public Resources Code, Section 40141 (West 1996); the Carpenter-Presley-Tanner Hazardous Substance Account Act (California Health and Safety Code Section 25300 *et seq.*), and Titles 22 and 26 of the California Code of Regulations and other regulations promulgated thereunder; radioactive materials which are source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. Section 2011 *et seq.*) and the regulations contained in 10 CFR Part 40). Contractor understands and acknowledges that the indemnification obligation hereunder is intended to constitute a "Type I" indemnity under California law and extends to and includes Claims arising from the active or passive negligence of Indemnified Parties. Notwithstanding the foregoing, nothing herein shall be construed to require Contractor to indemnify the Indemnified Parties from any Claim arising from the sole negligence or willful misconduct of the Indemnified Parties. This provision shall survive the termination of this Agreement or any other agreement between the Contractor and the County. The foregoing indemnity shall not have any dollar limitation. The foregoing indemnity is for the exclusive benefit of the Indemnified Parties and in no event shall such indemnity inure to the benefit of any third party.

**6.2 Duty to Defend.** The duty to defend hereunder is wholly independent of and separate from the duty to indemnify and such duty to defend exists regardless of any ultimate liability of Contractor. Such defense obligation shall arise immediately upon presentation of a Claim by any party and written notice of such Claim being provided to Contractor. Payment to Contractor by any Indemnified Party or the payment or advance of defense costs by any Indemnified Party shall not be a condition precedent to enforcing such Indemnified Party's rights to indemnification hereunder. Contractor's indemnification obligation and duty to defend hereunder shall survive the expiration or earlier termination of this Agreement until such time as action against the Indemnified Parties for such matter indemnified hereunder is fully and finally barred by the applicable statute of limitations or statute of repose. Contractor's liability for indemnification hereunder is in addition to any liability Contractor may have to County for a breach by Contractor of any of the provisions of this Agreement. Under no circumstances shall the insurance requirements and limits set forth in this Agreement be construed to limit Contractor's indemnification obligation or other liability hereunder. The terms of this Agreement are contractual and the result of negotiation between the parties hereto. Accordingly, any rule of construction of contracts (including, without limitation, California Civil Code Section 1654) that ambiguities are to be construed against the drafting party shall not be employed in the interpretation of this Agreement.

## **7. INSURANCE REQUIREMENTS**

**7.1 Additional Insured.** All policies, except for Worker's Compensation, Errors and Omissions and Professional Liability policies shall contain additional endorsements naming the County and its officers, employees, agents and volunteers as additional named insured with respect to liabilities arising out of the performance of services hereunder. The additional insured endorsements shall not limit the scope of coverage for the County to vicarious liability but shall allow coverage for the County to the full extent provided by the policy. Such additional insured coverage shall be at least as broad as Additional Insured (Form B) endorsement form ISO, CG 2010.11 85.

**7.2 Waiver of Subrogation Rights.** The Contractor shall require the carriers of required coverages to waive all rights of subrogation against the County, its officers, employees, agents, volunteers, contractors and subcontractors. All general or auto liability insurance coverage provided shall not prohibit the Contractor and Contractor's employees or agents from waiving the right of subrogation prior to a loss or claim. The Contractor hereby waives all rights of subrogation against the County.

**7.3 Policies Primary and Non-Contributory.** All policies required herein are to be primary and non-contributory with any insurance or self-insurance programs carried or administered by the County.

**7.4 Severability of Interests.** The Contractor agrees to ensure that coverage provided to meet these requirements is applicable separately to each insured and there will be no cross liability exclusions that preclude coverage for suits between the Contractor and the County or between the County and any other insured or additional insured under the policy.

**7.5 Proof of Coverage.** The Contractor shall furnish Certificates of Insurance to the County Department administering the Agreement evidencing the insurance coverage at the time the Agreement is executed,

additional endorsements, as required shall be provided prior to the commencement of performance of services hereunder, which certificates shall provide that such insurance shall not be terminated or expire without thirty (30) days written notice to the Department, and Contractor shall maintain such insurance from July 1, 2016 until the completion of such services. Within fifteen (15) days of July 1, 2016, the Contractor shall furnish a copy of the Declaration page for all applicable policies and will provide complete certified copies of the policies and endorsements immediately upon request.

**7.6 Acceptability of Insurance Carrier.** Unless otherwise approved by Risk Management, insurance shall be written by insurers authorized to do business in the State of California and with a minimum "Best" Insurance Guide rating of "A- VII".

**7.7 Deductibles and Self-Insured Retention.** Any and all deductibles or self-insured retentions in excess of \$10,000 shall be declared to and approved by Risk Management.

**7.8 Failure to Procure Coverage.** In the event that any policy of insurance required under this Agreement does not comply with the requirements, is not procured, or is canceled and not replaced, the County has the right but not the obligation or duty to cancel the Agreement or obtain insurance if it deems necessary and any premiums paid by the County will be promptly reimbursed by the Contractor or County payments to the Contractor will be reduced to pay for County purchased insurance.

**7.9 Insurance Review.** Insurance requirements are subject to periodic review by the County. The Director of Risk Management or designee is authorized, but not required, to reduce, waive or suspend any insurance requirements whenever Risk Management determines that any of the required insurance is not available, is unreasonably priced, or is not needed to protect the interests of the County. In addition, if the Department of Risk Management determines that heretofore unreasonably priced or unavailable types of insurance coverage or coverage limits become reasonably priced or available, the Director of Risk Management or designee is authorized, but not required, to change the above insurance requirements to require additional types of insurance coverage or higher coverage limits, provided that any such change is reasonable in light of past claims against the County, inflation, or any other item reasonably related to the County's risk.

Any change requiring additional types of insurance coverage or higher coverage limits must be made by amendment to this contract. Contractor agrees to execute any such amendment within thirty (30) days of receipt.

Any failure, actual or alleged, on the part of the County to monitor or enforce compliance with any of the insurance and indemnification requirements will not be deemed as a waiver of any rights on the part of the County.

**7.10** The Contractor agrees to provide insurance set forth in accordance with the requirements herein. If the Contractor uses existing coverage to comply with these requirements and that coverage does not meet the specified requirements, the Contractor agrees to amend, supplement or endorse the existing coverage to do so.

Without in anyway affecting the indemnity herein provided and in addition thereto, the Contractor shall secure and maintain throughout the Agreement term the following types of insurance with limits as shown:

- 7.10.1      Workers' Compensation/Employer's Liability – A program of Workers' Compensation insurance or a state-approved, self-insurance program in an amount and form to meet all applicable requirements of the Labor Code of the State of California, including Employer's Liability with \$250,000 limits covering all persons including volunteers providing services on behalf of the Contractor and all risks to such persons under this contract.

If Contractor has no employees, it may certify or warrant to the County that it does not currently have any employees or individuals who are defined as "employees" under the Labor Code and the requirement for Workers' Compensation coverage will be waived by the County's Director of Risk Management.

With respect to Contractors that are non-profit corporations organized under California or Federal law, volunteers for such entities are required to be covered by Workers' Compensation insurance.

- 7.10.2      Commercial/General Liability Insurance - The Contractor shall carry General Liability Insurance covering all operations performed by or on behalf of the Contractor providing coverage for bodily injury and property damage with a combined single limit of not less than one million dollars (\$1,000,000), per occurrence. The policy coverage shall include:
- a. Premises operations and mobile equipment.
  - b. Products and completed operations.
  - c. Broad form property damage (including completed operations).
  - d. Explosions, collapse and underground hazards.
  - e. Personal injury.
  - f. Contractual liability.
  - g. \$2,000,000 general aggregate limit.

- 7.10.3      Automobile Liability Insurance - Primary insurance coverage shall be written on ISO Business Auto coverage form for all owned, hired and non-owned automobiles or symbol 1 (any auto). The policy shall have a combined single limit of not less than one million dollars (\$1,000,000) for bodily injury and property damage, per occurrence.

If the Contractor is transporting one or more non-employee passengers in performance of contract services, the automobile liability policy shall have a combined single limit of two million dollars (\$2,000,000) for bodily injury and property damage per occurrence.

If the Contractor owns no autos, a non-owned auto endorsement to the General Liability policy described above is acceptable.

7.10.4 **Umbrella Liability Insurance** - An umbrella (over primary) or excess policy may be used to comply with limits or other primary coverage requirements. When used, the umbrella policy shall apply to bodily injury/property damage, personal injury/advertising injury and shall include a “dropdown” provision providing primary coverage for any liability not covered by the primary policy. The coverage shall also apply to automobile liability.

7.10.5 **Environmental Liability Insurance** – Environmental liability insurance with a combined single limit of not less than five million (\$5,000,000) per claim or occurrence and a separate aggregate for the contract project. The required additional insured endorsement shall protect the County without any restrictions.

If insurance coverage is provided on a “claims made” policy, the “retroactive date” shall be shown and must be before the date of the start of the contract work. The claims made insurance shall be maintained or “tail” coverage provided for a minimum of five (5) years after contract completion.

## 8. ASSIGNMENT

8.1 **County’s Consent Required.** Contractor shall not voluntarily or by operation of law, assign Contractor’s interest in this Agreement or in any options contained in this Agreement, without first obtaining County’s written consent. County’s consent shall be at its sole discretion.

8.2 **Terms and Conditions Applicable to Assignment.** The following provisions shall apply to any assignment pursuant to this Agreement:

8.2.1 Irrespective of County’s consent, any assignment shall not: (i) be effective without the express written assumption by such assignee of all of Contractor’s obligations under this Agreement; (ii) release Contractor of any of its obligations hereunder; nor (iii) alter the primary liability of Contractor for the payment of the Fees for Qualifying Solid Waste and other sums due County pursuant to this Agreement or for the performance of any of Contractor’s other obligations under this Agreement.

8.2.2 Each request for consent to an assignment shall be in writing. Contractor agrees to pay all costs incurred by County in reviewing Contractor’s request and provide County with such other and/or additional information and/or documentation as County may reasonably require in connection with Contractor’s request.

8.3 **Force Majeure.** Prevention, delay or stoppage due to Acts of God, inability to obtain labor, materials or reasonable substitutes, governmental restrictions, governmental regulation, governmental controls, judicial orders, enemy, or hostile governmental actions, civil commotions, fire or other casualty, and other causes beyond the reasonable control of Contractor or County, shall excuse the performance by Contractor or County for a period equal to the prevention, delay or stoppage, except the obligations imposed with regard to Fees to be paid by Contractor pursuant to this Agreement.

## 9. DEFAULTS; REMEDIES

9.1 **Defaults.** The occurrence of any one or more of the following events shall constitute a material default or breach of this Agreement by Contractor:

9.1.1 The failure by Contractor to make any payment of Fees or any other payment required to be made by Contractor hereunder, as and when due, where such failure shall continue for a period of thirty (30) business days after written notice thereof from County to Contractor;

9.1.2 The failure by Contractor to observe or perform any of the covenants, conditions or provisions of this Agreement in any material respect to be observed or performed by Contractor, where such failure shall continue for a period of thirty (30) days after written notice thereof from County to Contractor; provided, however, that if the nature of Contractor's default is such that more than thirty (30) days are reasonably required for its cure, then Contractor shall not be deemed to be in default, if Contractor commenced such cure within said thirty (30) day period and thereafter diligently prosecutes such cure to completion.

9.2 **Remedies.**

9.2.1 Other than as provided in Section 9.2.2, if Contractor fails to perform any affirmative duty or obligation of Contractor under this Agreement, within thirty (30) days after written notice to Contractor (or in case of an emergency, without notice), County may at its option (but without obligation to do so), perform such duty or obligation on Contractor's behalf, including, but not limited to, the obtaining of reasonably required insurance policies, or governmental licenses, permits or approvals. The costs and expenses of any such performance by County shall be due and payable by Contractor to County within thirty (30) days of County's demand.

9.2.2 In the event of any material default or breach by Contractor, County may at any time thereafter, following any notice required by statute, and without limiting County in the exercise of any right or remedy which County may have by reason of such default or breach:

9.2.2.1 Pursue any other remedy now or hereafter available to County under the laws or judicial decisions of the State of California.

## 10. TERMINATION

10.1 **Termination by Contractor.** Contractor may terminate this Agreement for cause upon the giving of not less than thirty (30) days written notice to County if the following occurs:

10.1.1 If access to the Landfill is not available due to high winds or other Acts of God for a period of 45 consecutive days, or 90 calendar days in any given 12 consecutive months, and the Contractor haulers are required to deliver to other than the Landfill and the County has not provided the

Contractor an acceptable alternative landfill at the same per ton disposal fee as the Landfill disposal fee, then the Contractor may terminate this Agreement.

10.1.2 **Termination by County.** In addition to as provided herein or as allowed by applicable law, County may terminate this Agreement for cause upon giving thirty (30) days written notice to Contractor if the following occurs:

10.1.3 Termination for cause shall mean that the Contractor has brought in waste to the Disposal System that that does not meet the conditions of Section 4, failure to pay the fees, including late charges and interest, as described in Section 3 within 90 days of when the fees were originally due, or failure to maintain an adequate security deposit as determined by the County.

## 11. GENERAL PROVISIONS

11.1 **Recitals.** The recitals first set forth above are true and correct and incorporated herein by this reference.

11.2 **Severability.** The invalidity of any provision of this Agreement as determined by a court of competent jurisdiction shall in no way affect the validity of any other provision hereof.

11.3 **Time of Essence.** Except as otherwise specifically provided, time is of the essence for each provision of this Agreement which specifies a time within which performance is to occur. In the absence of any specified time for performance, performance may be made within a reasonable time.

11.4 **Entire Agreement, Modification.** This Agreement contains all agreements of the parties with respect to any matter mentioned herein. No prior agreement or understanding pertaining to any such matter shall be effective. This Agreement may be modified in writing only, signed authorized representatives of the parties at the time of the modification.

11.5 **Notices.** Any notice required or permitted to be given hereunder, including a Notice to Pay Fees, or Notice to Terminate, shall be in writing and may be given by personal delivery or by first class mail, and if given personally or by mail, shall be deemed sufficiently given if addressed to Contractor or to County at the address noted below:

Contractor: Mammoth Mountain Ski Area, LLC  
Attention: Denise Schneider, Wastewater Operator  
P.O. Box 24, 10001 Minaret Road  
Mammoth Lakes, California 93546

County: Solid Waste Management Division  
Attention: Darren J. Meeka, Deputy Director  
222 West Hospitality Lane, Second Floor

San Bernardino, California 92415-0017

With copy to:

Office of County Counsel  
County of San Bernardino  
385 North Arrowhead Avenue, Fourth Floor  
San Bernardino, California 92415

Each notice shall specify the paragraph of this Agreement, if any, pursuant or with reference to which it is given. Either party may by notice to the other specify a different address or contact person for notice purposes. A copy of all notices required or permitted to be given to County hereunder shall be concurrently transmitted to such party or parties at such addresses as County may from time to time hereafter designate by notice to Contractor.

**11.6 Waivers.** No waiver by County or Contractor of any provision hereof shall be deemed a waiver of any other provision hereof or of any subsequent breach by County or Contractor of the same or any other provision. County's or Contractor's consent to, or approval of, any act shall not be deemed to render unnecessary the obtaining of their consent to or approval of any subsequent act. The acceptance of fees hereunder by County shall not be a waiver of any preceding breach by Contractor of a provision hereof, other than the failure of Contractor to pay the particular fees so accepted, regardless of County's knowledge of such preceding breach at the time of acceptance of such fees.

**11.7 Cumulative Remedies.** No remedy or election under this Agreement shall be deemed exclusive but shall, wherever possible, be cumulative with all other remedies at law or in equity.

**11.8 Binding Effect; Choice of Law.** Subject to any provisions hereof-restricting assignment or subletting by Contractor and subject to the provisions of Section 7, this Agreement shall bind the parties, their personal representatives, successors and assigns. The laws of the State of California shall govern this Agreement. The language of all parts of this Agreement shall be construed with its fair meaning and not strictly for or against the County or Contractor.

**11.9 Venue.** The parties acknowledge and agree that this Agreement was entered into and intended to be performed in San Bernardino County, California. The parties agree that the venue of any action or claim brought by any party to this Agreement will be the Superior Court of California, County of San Bernardino, San Bernardino District. Each party hereby waives any law or rule of the court, which would allow them to request or demand a change of venue. If any action or claim concerning this Agreement is brought by any third-party and filed in another venue, the parties hereto agree to use their best efforts to obtain a change of venue to the Superior Court of California, County of San Bernardino, San Bernardino District.

**11.10 Jury Trial Waiver.** To the extent allowed by law, Contractor and County hereby waive their respective right to trial by jury and agree to accept trial by judge alone of any cause of action, claim, counterclaim or cross-complaint in any action, proceeding and/or hearing brought by either Contractor against the County or County against Contractor on any matter whatsoever arising out of, or in any way connected with, this Agreement, the



relationship of Contractor and County, Contractor's use or occupancy of the Premises, or any claim of injury or damage, or the enforcement of any remedy under any law, statute, or regulation, emergency or otherwise, now or hereafter in effect.

**11.11 Attorneys' Fees and Costs.** If any legal action is instituted to enforce or declare any party's rights hereunder, each party, including the prevailing party, must bear its own costs and attorneys' fee. This paragraph shall not apply to those costs and attorneys' fees directly arising from any third party legal action against a party hereto and payable under the Sections related to INDEMNIFICATION and INSURANCE REQUIREMENTS, payable on account of Contractor violation of Section 4.7 or 4.8, or payable under Section 11.22, Public Records Disclosure.

**11.12 Authority.** If Contractor is a corporation, each of the persons executing this Agreement on behalf of Contractor represents or warrants the Contractor has been and is qualified to do business in the State of California, that the corporation has full right and authority to enter into this Agreement, and that all persons signing on behalf of the corporation were authorized to do so by the appropriate corporate actions. Contractor agrees to furnish upon County's request a corporate resolution, or other appropriate documentation evidencing the authorization of Contractor to enter into this Agreement.

**11.13 Captions.** The captions used herein are for convenience only and are not a part of this Agreement and do not in any way amplify the terms or provisions hereof.

**11.14 Non-Liability of Officials and Employees of the County.** No official or employee of County shall be personally liable for any default or liability under this Agreement.

**11.15 Non-Discrimination.** During the term of the Contract, Contractor shall not discriminate against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, sexual orientation, age, or military and veteran status. Contractor shall comply with Executive Orders 11246, 11375, 11625, 12138, 12432, 12250, 13672, Title VII of the Civil Rights Act of 1964, the California Fair Housing and Employment Act and other applicable Federal, State and County laws and regulations and policies relating to equal employment and contracting opportunities, including laws and regulations hereafter enacted.

**11.16 Independent Contractor.** It is agreed that Contractor shall act and be an independent contractor and not an agent nor employee of County.

**11.17 Conflict of Interest.** Contractor shall make all reasonable efforts to ensure that no conflict of interest exists between its officers, employees, or subcontractors and the County. Contractor shall make a reasonable effort to prevent employees, Contractor, or members of governing bodies from using their positions for purposes that are, or give the appearance of being motivated by a desire for private gain for themselves or others such as those with whom they have family business, or other ties. Officers, employees, and agents of cities, counties, districts, and other local agencies are subject to applicable conflict of interest codes and state law. In the event the County determines a conflict of interest situation exists, any increase in costs, associated

with the conflict of interest situation, may be disallowed by the County and such conflict may constitute grounds for termination of the Contract. This provision shall not be construed to prohibit employment of persons with whom Contractor's officers, employees, or agents have family, business, or other ties so long as the employment of such persons does not result in increased costs over those associated with the employment of any other equally qualified applicant.

**11.18 Provisions are Covenants and Conditions.** All provisions, whether covenants or conditions, on the part of either party, shall be deemed to be both covenants and conditions.

**11.19 Consent.** Whenever consent or approval of either party is required, that party shall not unreasonably withhold such consent or approval.

**11.20 Exhibits.** Exhibits A and B referred to in this Agreement or attached to this Agreement are incorporated herein by reference.

**11.21 Survival.** The obligations of the parties, which by their nature continue beyond the term of this Agreement, will survive the termination of this Agreement.

**11.22 Public Records Disclosure.** All information received by the County from any source concerning this Agreement, including the Agreement itself, may potentially be treated by the County as public information subject to disclosure under the provisions of the California Public Records Act, Government Code Sections 6250 et seq. (the "Public Records Act"). Contractor understands that although all materials received by the County in connection with this Agreement are intended for the exclusive use of the County, they are potentially subject to disclosure under the provisions of the Public Records Act. In the event a request for disclosure of any part or all of any information which Contractor has reasonably requested County to hold in confidence, and marked as confidential, is made to the County, the County shall notify the Contractor of the request and shall thereafter disclose the requested information unless the Contractor, within five (5) days of receiving notice of the disclosure request, requests nondisclosure, provides County a legally sound basis for the nondisclosure, and agrees to indemnify, defend, and hold the County harmless in any/all actions brought to require disclosure. Contractor waives any and all claims for damages, lost profits, or other injuries of any and all kinds in the event County fails to notify Contractor of any such disclosure request and/or releases any information concerning the Agreement received from the Contractor or any other source.

**11.23 Former County Officials; Misrepresentation.**

**11.23.1** Contractor agrees to provide or has already provided information on former County administrative officials (as defined below) who are employed by or represent the Contractor. The information provided includes a list of former County administrative who terminated County employment within the last five years and who are now officers, principals, partners, associates or members of the business. The information also includes the employment with or representation of Contractor. For purposes of this provision, "County administrative official" is defined as a member of the Board of Supervisors or such officer's staff, Chief Executive Officer or member of such officer's staff, County department or group head, assistant department

or group head, or any employee in the Exempt Group, Management Unit or Safety Management Unit. (See Exhibit "B", List of Former County Officials.)

11.23.2 If during the course of the administration of this Agreement, the County determines that the Contractor has made a material misstatement or misrepresentation or that materially inaccurate information has been provided to the County, this Agreement may be immediately terminated. If this Agreement is terminated according to this provision, the County is entitled to pursue any available legal remedies.

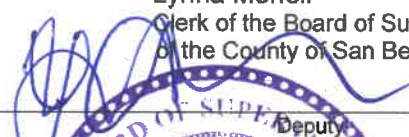
12.0 **Counterparts.** This Agreement may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, and such counterparts shall together constitute one and the same Agreement. The parties shall be entitled to sign and transmit an electronic signature of this Agreement (whether by facsimile, PDF or other email transmission), which signature shall be binding on the party whose name is contained therein. Each party providing an electronic signature agrees to promptly execute and deliver to the other party an original signed Agreement upon request.

**IN WITNESS WHEREOF**, the Board of Supervisors of the County of San Bernardino and the Contractor have each caused this Agreement to be subscribed by its respective duly authorized officers, on its behalf.

COUNTY OF SAN BERNARDINO

►   
Curt Hagman, Chairman, Board of Supervisors

Dated: JUN 22 2021  
SIGNED AND CERTIFIED THAT A COPY OF THIS  
DOCUMENT HAS BEEN DELIVERED TO THE  
CHAIRMAN OF THE BOARD

By   
Lynna Monell  
Clerk of the Board of Supervisors  
of the County of San Bernardino  
Deputy



MAMMOTH SKI AREA, LLC  
(Print or type name of corporation, company, contractor, etc.)

By ►   
(Authorized signature - sign in blue ink)

Name Tom Hodges  
(Print or type name of person signing contract)

Title Vice President, Mtn. Dev.  
(Print or Type)

Dated: 6/14/21

Address P.O. BOX 24, 10001 Minaret Road  
Mammoth Lakes, CA 93546

**EXHIBIT A**  
**WASTE ACCEPTANCE PLAN**  
**FOR THE BARSTOW SANITARY LANDFILL**

# **WASTE ACCEPTANCE PLAN**

## **BARSTOW SANITARY LANDFILL COUNTY OF SAN BERNARDINO**

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**February 2020**

### **SUBMITTED BY:**

**County of San Bernardino  
Solid Waste Management Division  
222 W. Hospitality Lane, 2nd Floor  
San Bernardino, California 92415-0017**



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## **1.0 INTRODUCTION**

Landfills owned and managed by the County of San Bernardino Solid Waste Management Division (SWMD) are designed, constructed, and operated primarily for the handling and disposal of solid wastes in accordance with Title 27 of the California Code of Regulations (CCR27), Sections 20220 and 20230, which define Class III wastes. Pursuant to the site Joint Technical Document, acceptable wastes, herein described as “routine solid wastes”, include: domestic garbage and rubbish that originate in residential dwellings (residential waste); solid waste generated by stores, offices, and other commercial sources, excluding residences and industrial waste (commercial waste); residues from farming and livestock land uses (agricultural waste); types of solid waste that result from industrial processes and manufacturing operations, including tires, but excluding hazardous materials (industrial waste). Mixed municipal wastes include a combination of residential and commercial waste. Acceptable wastes for disposal or beneficial reuse at the Barstow Sanitary Landfill (BSL) are outlined in the site-specific Waste Discharge Requirements [WDR; issued by the California Regional Water Quality Control Board – Lahontan Region (LRWQCB) in Order No. R6V-2012-0037] and the Solid Waste Facility Permit (SWFP) in conformance with CCR27).

Some waste streams, such as non-hazardous contaminated soils, may be accepted either for disposal or beneficial reuse under specific conditions, following formal waste analysis and/or clearance. As the LRWQCB has not published regulations for the acceptance of contaminated soils, SWMD is providing the following guidelines and procedures for acceptance and handling of various waste types, including routine solid waste, waste-derived material, and contaminated soil. These guidelines and procedures are, in general, in conformance with WDR Order No R8-2016-0052 (issued by the Santa Ana Regional Office of the RWQCB).

In addition, the BSL may recycle certain incoming waste streams that SWMD has deemed financially feasible, beneficial, or otherwise required under current regulations. These “recycled” waste products may be used as alternative daily cover, deck and/or bench road stabilization, erosion control material, drainage infrastructure or other beneficial re-use activity. All materials accepted for beneficial reuse at the BSL shall meet the acceptance criteria specified in the site operation permits (SWFP and WDRs) and applicable federal, state, and local regulations for unlined and lined landfill sites.

## **2.0 ROUTINE SOLID WASTE**

Routine solid waste is accepted at the site and requires no special handling. Acceptance and handling of routine solid waste shall include unloading, pushing, spreading, and compaction. This waste must be covered at the end of each operation day.

## **3.0 WASTE-DERIVED MATERIAL**

Certain materials from the solid waste stream may be diverted, processed and reused if use of the material is beneficial for the site. The benefits include, but are not limited to, conservation

of valuable landfill airspace, use is financially feasible and beneficial for site maintenance and operation activities, or is otherwise required under current landfill regulations. Therefore, SWMD enhances its material diversion efforts by targeting waste materials that are already approved by various regulatory agencies such as CalRecycle and the Water Quality Control Board for on-site beneficial uses.

Pursuant to CCR27, Section 20686, “beneficial re-use” of solid wastes at MSW landfills shall include, but not be limited to, the following applications:

- Alternative daily cover (ADC)
- Alternative intermediate cover
- Final cover foundation layer
- Liner operations layer
- Leachate and landfill gas collection system
- Construction fill
- Road base
- Operation pads and access roads for wet-weather operations
- Soil amendments for erosion control and landscaping.

Furthermore, Section 20690 of the CCR27 approves the use of the following waste and waste-derived materials for use as ADC on -site:

- Geosynthetic fabric
- Processed green/woody waste material
- Construction and Demolition (C&D) material
- Sludge-derived material
- Ash
- Contaminated soils/sediment
- Compost material
- Shredded tires.

All materials accepted for beneficial reuse at the BSL must first meet the acceptance criteria specified in the site-specific operation permits (SWFP and WDRs) and applicable federal, state, and local regulations for unlined and lined landfill sites.

#### **C&D Processing Operation**

C&D debris is waste material produced during the construction, renovation, or demolition of structures (i.e., buildings, roads, and bridges). Components of C&D debris typically include asphalt, bricks, concrete and other masonry materials, soils rock, wall coverings, drywall, insulation, roofing, shingles, metal, wood waste, carpet, and floor tiles. If C&D diversion and processing is undertaken at the landfill, the landfill customers would be allowed to haul their C&D waste directly to a designated C&D area for temporary storage and future processing (grinding) and re-use.



### **Green/Woody Waste Processing**

Green waste is vegetative waste including leaves, tree branches, untreated and unpainted lumber, grass and plant clippings. If green waste diversion is undertaken at the landfill, customers would be directed to an area to deposit their green waste either on the ground or in storage bins. After sorting, the green/woody waste may be processed and/or transferred offsite to supply other higher end beneficial uses (such as composting and biomass-to-energy). If ground into mulch, processed green materials may be utilized as ADC or erosion control, as needed, within the landfill site.

## **4.0 CONTAMINATED SOIL ACCEPTANCE CRITERIA**

Non-Hazardous contaminated soil is accepted for disposal or beneficial reuse at the BSL in accordance with applicable federal, state and local regulations. To maintain consistency throughout SWMD's waste system, SARWQCB WDR Order R8-2016-0052 was used as guidance to develop this Waste Acceptance Plan (WAP). The information in this WAP is intended to establish guidelines and procedures to determine if contaminated soil is acceptable for on-site use, as waste to be buried, or as material that is unacceptable for disposal in a Class III landfill. SARWQCB WDR Order R8-2016-0052 provides guidance regarding limits for the disposal or reuse of soils contaminated with total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-VOCs (SVOCs), organochlorine pesticides, polychlorinated biphenyls (PCBs), and California Administrative Manual (CAM) metals. Threshold values for these constituents differ depending on the disposition and/or intended use of the contaminated soils as follows:

- Unrestricted onsite reuse, including, but not limited to: alternative daily cover, alternative intermediate cover, final cover foundation layer, liner operations layer, leachate and landfill gas collection system, construction fill, road base, wet weather operation pads and access roads, and soil amendments for erosion control and landscaping.
- Disposal within unlined landfills.
- Disposal within lined landfills.

### **4.1 Unrestricted Onsite Use**

Clean and slightly contaminated soils, for which waste concentrations do not exceed the following threshold criteria, may be disposed of or used onsite at any portion of the landfill without restriction.

- For petroleum hydrocarbon contaminated soils, the threshold concentration is an average TPH concentration of 50 milligrams per kilogram (mg/kg) in the gasoline range (C<sub>4</sub>-C<sub>12</sub>), or an average concentration of 100 mg/kg in the diesel range (C<sub>13</sub>-C<sub>22</sub>), or an average concentration of 1000 mg/kg in the heavy oil range (C<sub>23+</sub>). The TPH for full chain hydrocarbons (gasoline, diesel, and heavy oils) cannot exceed 1000 mg/kg.

- With respect to constituents other than TPH, the following threshold concentration limits apply:
  - Soils with an average, contaminant-specific concentration that does not exceed a Regional Screening Level (RSL) for residential sites established by the U.S. Environmental Protection Agency (USEPA).
  - In absence of RSL limits, soils with an average, contaminant-specific concentration that does not exceed an Environmental Screening Level (ESL) for “Soil Tier 1” established by the San Francisco Bay RWQCB.
  - Soils for which a RSL or ESL has not been established, an average contaminant-specific concentration shall not exceed, on a per weight basis, 10 times the maximum contaminant level (MCL) for drinking water, established by the USEPA and/or the State Water Board’s Division of Drinking Water, whichever is more stringent. Of note, although MCLs are provided in units of milligrams per liter (mg/L) and soil analysis is provided in units of milligrams per kilogram (mg/kg), each should be directly compared (e.g. 5 mg/L = 5 mg/kg).
  - Constituents that are naturally occurring in soils (such as metals) may exceed the previously described threshold concentration levels. Average concentrations shall be considered for these naturally occurring constituents in the region. A demonstration must be made that they are naturally occurring and that these levels will not result in impacts to surface or groundwater quality.
  - Soils with an average pH that does not exceed 9 nor fall below 6.
  - Soils with an average specific conductance value that does not exceed 2,000 micromhos per centimeter (mmhos/cm).

#### **4.2 Disposal within an Unlined Cell**

Clean and slightly contaminated soils, for which waste concentrations do not exceed the following threshold criteria, may be disposed of in unlined landfill cells:

- For petroleum hydrocarbon contaminated soils, the threshold concentration is an average TPH concentration of 500 mg/kg in the gasoline range (C<sub>4</sub>-C<sub>12</sub>), or an average concentration of 5,000 mg/kg in the diesel range (C<sub>13</sub>-C<sub>22</sub>), or an average TPH concentration of 5,000 mg/kg.
- With respect to constituents other than TPH, the following threshold concentration limits apply:
  - Soils with an average, contaminant-specific concentration that does not exceed a USEPA RSL.
  - In absence of RSL limits, soils with an average, contaminant-specific concentration that does not exceed an ESL for “Leaching to Groundwater” established by the San Francisco Bay RWQCB.

- Soils contaminated with VOCs, SVOCs, organochlorine pesticides, PCBs, or CAM metals shall not be disposed of at unlined portions of the landfill if the contaminant exceeds 100 times the maximum contaminant level (MCL) for drinking water, on a per-weight basis. Of note, although MCLs are provided in units of mg/L and soil analysis is provided in units of mg/kg, each should be directly compared (e.g. 5 mg/L = 5 mg/kg).
- Soils with an average pH that does not exceed 9 nor fall below 6.
- Soils with an average specific conductance value that does not exceed 2,000  $\mu\text{mhos/cm}$ .

#### **4.3 Disposal in a Lined Cell**

Non-hazardous soil contaminated with TPH, VOCs, SVOCs, organochlorine pesticides, PCBs, or CAM metals at concentrations exceeding criteria established for unlined landfills (Sections 4.1 and 4.2) can be disposed of in a lined portion of a Class III landfill in the Lahontan Region if the discharger determines, pursuant to approval by the Executive Officer, that the contaminated soils are not classified as designated waste. To satisfy this requirement, the SWMD has developed waste acceptance criteria consistent with *The Designated Level Methodology for Waste Classification and Cleanup Level Determination*. In developing the waste acceptance criteria, the following were considered: municipal and domestic supply beneficial use water quality objectives in the Lahontan basin, a calculated leakage flow based on landfill-specified design criteria, a calculated groundwater flow rate based on landfill specific and hydrogeologic conditions, and equilibrium partitioning of waste constituents between leachate and soils and also between leachate and groundwater with consideration for dilution attenuation. The waste acceptance criteria are included in Tables 1 through 5 and discussed in Section 5.

In addition to the aforementioned waste acceptance criteria, soils that meet the following threshold limits may be discharged to a lined or lined portion of a landfill cell:

- For petroleum hydrocarbon contaminated soils, soils contaminated with an average TPH concentration that does not exceed 1,000 mg/kg in the gasoline range ( $C_4$ - $C_{12}$ ), or an average concentration of 10,000 mg/kg in the diesel range ( $C_{13}$ - $C_{22}$ ), or an average TPH concentration of 75,000 mg/kg.
- Soils contaminated with a PCB concentration that does not exceed 50 mg/kg [Title 40 of the Code of Federal Regulation (CFR40) §761.61(a)(5)(v)(A)(1)].
- Soils with an average pH value between 10 and 4.

#### **5.0 WASTE ACCEPTANCE THRESHOLDS**

Table 1 summarizes hazardous waste criteria. Nothing exceeding the thresholds listed in Table 1 may be accepted at the BSL. Table 2 summarizes waste acceptance thresholds with respect to TPH, as detailed in Section 4 of this WAP. Table 3 summarizes waste acceptance thresholds with respect to CAM metals. Table 4 summarizes waste acceptance thresholds with respect to

constituents with water quality objectives (WQOs), and Table 5 summarizes waste acceptance thresholds with respect to constituents that do not have WQOs.

Documents supporting the background concentrations listed in Table 3 are presented in Appendix A.

On Tables 3 and 4, designated waste thresholds were calculated to provide limits for disposal within lined cells. To calculate these thresholds, the WQO of a given constituent is multiplied by the dilution attenuation factor (DAF). The DAF is calculated using MULTIMED modeling, which uses site-specific inputs, such as liner leakage rate, depth to groundwater, hydraulic conductivity, hydraulic gradient, porosity, carbon content in soil, and biodegradation. MULTIMED modeling information is provided in Appendix B. The DAF calculated specifically for the BSL is 705. However, to remain conservative, a safety factor of 1.5 was applied to the calculated DAF, resulting in a DAF of 470. The DAF of 470 was used to calculate waste acceptance threshold limits.

## **6.0 CONTAMINATED SOIL CHARACTERIZATION**

Waste characterization shall be performed on contaminated soils and submitted to SWMD's Operations Section for review and approval prior to shipment to the site.

### **6.1 Sampling Frequency**

An appropriate number of samples shall be collected to characterize contaminated soils based on the volume of soil expected to be delivered to the landfill. The following table defines these sampling frequencies:

<b>CUBIC YARDS (CY) OF SOIL</b>	<b>NUMBER OF SAMPLES</b>
Less than 20	1*
20 to 100	2
101 to 500	4
501 to 2,500	6
2,500 to 20,000	1 additional sample for every 500 CY over 2,500 CY
Greater than 20,000	1 additional sample for every 2,000 CY over 20,000 CY

Note: \* - Less than 20 CY will only require sampling for TPH, CAM metals, and any suspected contaminants.

### **6.2 Analytical Program**

For waste quantities totaling less than 20 CYs, the following constituents shall be analyzed in all soil samples:

- TPH (C<sub>4</sub>-C<sub>12</sub> Range)
- TPH (C<sub>13</sub>-C<sub>22</sub> Range)

- TPH (C<sub>23</sub>-C<sub>40</sub> Range)
- CAM metals

At the discretion of the SWMD, and depending on the source of the contaminated soil under consideration, additional analytes may be required.

For quantities greater than 20 CY, soil samples shall be collected and analyzed for the following:

- TPH (C<sub>4</sub>-C<sub>12</sub> Range)
- TPH (C<sub>13</sub>-C<sub>22</sub> Range)
- TPH (C<sub>23</sub>-C<sub>40</sub> Range)
- CAM metals
- VOCs
- SVOCs

At the discretion of the SWMD, and depending on the source of the material under consideration, additional analytes may be required. These analyses may include, but are not limited to:

- PCBs
- Organochlorine Pesticides
- Organophosphorus Compounds
- Chlorinated Herbicides

Based on the results obtained and the source of the contaminated soil, and at the discretion of SWMD, the analyses program may be reduced (e.g. no detections for a suite of constituents).

All testing is to be completed by a State accredited environmental laboratory using the most appropriate method listed in the most recent update of the USEPA's publication SW-846 ("Test Methods for Evaluating Solid Waste, Physical/Chemical Methods"). The analytical laboratory shall include the method of analysis used on all lab reports. All samples shall be collected in laboratory-approved or laboratory-supplied containers.

## **7.0 WASTE ACCEPTANCE PLAN IMPLEMENTATION**

The following steps will be taken to profile and accept contaminated soil:

- The waste generator shall contact SWMD's Operations Section for waste profiling instructions and a generator/waste form (special waste form), which includes information relative to the generator, the transporter, the property owner, the site of waste origin, soil information, and sample information. A copy of the special waste form is included in Appendix C.

- The special waste form shall be fully completed and signed and dated with a statement indicating that all items listed on the special waste form are true and to the best of the generator's knowledge, the soil is non-hazardous.
- The special waste form and analytical testing results will be submitted to SWMD's Operations Section for review. SWMD staff will verify that appropriate analyses and sampling frequencies were performed, will request additional information or provide guidance on additional testing if necessary, and determine the fate of contaminated soils (reject, dispose in lined cell, dispose in unlined cell, or reuse onsite) by comparing analytical results to threshold values.
- SWMD staff will either deny acceptance of the soil or provide the generator with a soil acceptance letter for each truck load of soil (noting whether the soil must be disposed within a lined cell or if the soil is acceptable for beneficial reuse/unlined cell disposal). Soil acceptance letters will expire after 90 days of issue, though extensions may be granted at the SWMD's discretion.
- A soil acceptance letter with an attached special waste form must accompany each load to the landfill and must be presented to the scale house attendant for verification. The scale house attendant will perform an initial visual load screening to verify that the load matches the descriptions on the special waste form and soil acceptance letter, and a random load screening or suspicious load screening (as necessary) using a photoionization detector (PID) to verify that the soil characteristics reported on the special waste form appear accurate. Any loads that cannot be verified as approved for disposal at the BSL will be detained until approval is confirmed, or turned away.

## **8.0 REPORTING**

SWMD's Operations Section will keep records of all information that is to be reported to the RWQCB, including:

- The types, volumes, and fate (disposal or onsite reuse) of all accepted contaminated soils and waste-diverted material.
- Waste profiling information by the discharger (Appendix C – Special Waste Form).
- The time, date, location, and description of all samples.
- Name of individual who completed the sampling.
- The time and date of analyses and analytical technique/method used.
- All analytical results used for waste profiling.

This information will be provided in an Appendix under the Annual Summary Report for the water quality Monitoring & Reporting Program (M&RP) in accordance with the site-specific WDRs. All reports pertaining to waste acceptance will be signed and certified by the principal executive officer or elected official; or by a duly authorized representative of that person. Additionally, the following certification will be made:

**"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment."**

## **9.0 REFERENCES**

- California Regional Water Quality Control Board, Los Angeles Region, 2011 "Amendments to Waste Discharge Requirements for Disposal and Onsite Use of Non-Designated/Non-Hazardous Contaminated Soils and Related Wastes At Municipal Solid Waste Landfills", March.
- California Regional Water Quality Control Board, Lahontan Region, 2012, "Revised Waste Discharge Requirements for Barstow Class III Landfill, Class II Surface Impoundments and Septage Sludge Landfarm", Order No. R6V-2012-0037", adopted on July 11, 2012.
- California Regional Water Quality Control Board, Santa Ana Region, 2016, "Amendment to the Waste Discharge Requirements for Active Class III Landfills within the Santa Ana Region for Acceptance of Non-Hazardous Contaminated Soils and Certain Waste/Waste-Derived Material for Disposal or Beneficial Reuse, Order No. R8-2016-0052", October.
- County of San Bernardino, 2015, "Joint Technical Document, Barstow Sanitary Landfill, San Bernardino County, California", December.
- U.S. Environmental Protection Agency, 2019, "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods,"  
<http://www3.epa.gov/epawaste/hazard/testmethods/sw846/online/>.



**TABLE 1**  
**SUMMARY OF HAZARDOUS WASTE CRITERIA**  
**BARSTOW SANITARY LANDFILL**

<b>ANALYTE</b>	<b>TTLC (mg/kg)</b>	<b>STLC (mg/L)</b>	<b>TCLP (mg/L)</b>
Aldrin	1.4	0.14	NS
Antimony and/or Antimony Compounds	500	15	NS
Arsenic and/or Arsenic Compounds	500	5.0	5.0
Asbestos	1.0 (%)	NS	NS
Barium and/or Barium Compounds (Excluding Barite	10,000	100	100
Benzene	NS	NS	0.50
Beryllium and/or Beryllium Compounds	75	0.75	NS
Cadmium and/or Cadmium Compounds	100	1.0	1.0
Carbon Tetrachloride	NS	NS	0.50
Chlordane	2.5	0.25	0.030
Chlorobenzene	NS	NS	100
Chloroform	NS	NS	6.0
Chromium and/or Chromium III Compounds (See Note	2,500	5.0	5.0
Chromium (VI) Compounds	500	5.0	NS
Cobalt and/or Cobalt Compounds	8,000	80	NS
Copper and/or Copper Compounds	2,500	25	NS
Cresol (Total)	NS	NS	200
Cresol, m-	NS	NS	200
Cresol, o-	NS	NS	200
Cresol, p-	NS	NS	200
DDT, DDE, DDD	1.0	0.10	NS
Dichloroethane, 1,2-	NS	NS	0.50
Dichlorobenzene, 1,4-	NS	NS	7.5
Dichloroethylene, 1,1-	NS	NS	0.70
Dichlorophenoxy Acetic Acid, 2,4- (2,4-D)	100	10	10
Dieldrin	8.0	0.80	NS
Dinitrotoluene, 2,4-	NS	NS	0.13
Endrin	0.20	0.020	0.020
Fluoride Salts	18,000	180	NS
Heptachlor and Heptachlor Epoxide	4.7	0.47	0.008
Hexachlorobenzene	NS	NS	0.13
Hexachlorobutadiene	NS	NS	0.50
Hexachloroethane	NS	NS	3.0
Kepone	21	2.1	NS
Lead and/or Lead Compounds (See Note 5)	1,000	5.0	5.0
Lead Compounds (Organic)	13	NS	NS
Lindane	4.0	0.40	0.40
Mercury and/or Mercury Compounds	20	0.20	0.20
Methoxychlor	100	10	10
Methyl Ethyl Ketone (2-Butanone)	NS	NS	200
Mirex	21	2.1	NS

<b>TABLE 1</b> <b>SUMMARY OF HAZARDOUS WASTE CRITERIA</b> <b>BARSTOW SANITARY LANDFILL</b>			
<b>ANALYTE</b>	<b>TTLIC (mg/kg)</b>	<b>STLC (mg/L)</b>	<b>TCLP (mg/L)</b>
Molybdenum and/or Molybdenum Compounds (Excluding Molybdenum Disulfide)	3,500	350	NS
Nickel and/or Nickel Compounds	2,000	20	NS
Nitrobenzene	NS	NS	2.0
Pentachlorophenol	17	1.7	100
Polychlorinated Biphenyls (PCBs)	50	5.0	NS
Pyridine	NS	NS	5.0
Selenium and/or Selenium Compounds	100	1.0	1.0
Silver	500	5.0	5.0
Dioxin (2,3,7,8-TCDD)	0.010	0.001	NS
Tetrachloroethylene	NS	NS	0.70
Thallium and/or Thallium Compounds	700	7.0	NS
Toxaphene	5.0	0.50	0.50
Silvex (2,4,5-TP)	NS	NS	1.0
Trichloroethylene	2,040	204	0.50
Trichlorophenol, 2,4,5-	NS	NS	400
Trichlorophenol, 2,4,6-	NS	NS	2.0
Trichlorophenoxypropionic acid, -2,4,5	10	1.0	NS
Vanadium and/or Vanadium Compounds	2,400	24	NS
Vinyl Chloride	NS	NS	0.20
Zinc and/or Zinc Compounds	5,000	250	NS

**NOTES:**

1. TTLIC - Total Threshold Limit Concentration. Wastes with constituent concentrations exceeding these values are hazardous.
2. STLC - Soluble Threshold Limit Concentration. Wastes with extract concentrations determined using the Waste Extraction Test (WET) that exceed these values are hazardous.
3. TCLP - Toxicity Characteristic Leachate Procedure. Wastes with extract concentrations determined using the TCLP that exceed these values are hazardous.
4. In accordance with CCR Title 22, Chapter 11, §66261.24, Table II, footnote (d), if the soluble chromium, as determined by the TCLP is less than 5 mg/l, and the soluble chromium, as determined by the procedures set forth in Appendix II of chapter 11, equals or exceeds 560 mg/l and the waste is not otherwise identified as a RCRA hazardous waste pursuant to section 66261.100, then the waste is a non-RCRA hazardous waste.

NS - Not Specified.



**TABLE 3**  
**CAM METALS ACCEPTANCE THRESHOLD CONCENTRATIONS**  
**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED ONSITE USE (mg/kg)	UNLINED CELL DISPOSAL (mg/kg)	LINED CELL DISPOSAL (mg/kg)	REFERENCE CONCENTRATIONS								
				TTLIC (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)	BACKGROUND (mg/kg)	10 x MCL (mg/kg)	100 x MCL (mg/kg)	WQO x DAF (mg/kg)
Antimony	31	470	500	500	31	31	470	NS	-	0.05	0.6	2.8
Arsenic	0.68	3.0	500	500	0.68	0.670	3.0	NS	12*	0.1	1	4.7
Barium	10,000	10,000	10,000	10,000	15,000	3,000	220,000	NS	120**	10	100	470
Beryllium	75	75	75	75	160	42	2,300	NS	-	0.04	0.4	1.9
Cadmium	0.05	0.5	2.4	100	NS	39	NS	NS	-	0.05	0.5	2.4
Chromium	56	56	56	2,500	NS	NS	NS	NS	56**	0.5	5	24
Cobalt	23	350	8,000	8,000	23	23	350	NS	14**	NA	NA	NA
Copper	2,500	2,500	2,500	2,500	3,100	3,100	47,000	NS	31**	13	130	611
Lead	400	800	1,000	1,000	400	80	800	NS	5.4**	0.15	1.5	7.1
Mercury	11	20	20	20	11	13	47	NS	-	0.02	0.2	0.94
Molybdenum	390	3,500	3,500	3,500	390	390	5,800	NS	-	NA	NA	NA
Nickel	1,500	2,000	2,000	2,000	1,500	86	22,000	NS	57**	1.0	10	47
Selenium	100	100	100	100	390	390	5,800	NS	-	0.5	5	24
Silver	390	500	500	500	390	390	5,800	NS	-	1.0	10	47
Thallium	0.78	12	700	700	0.78	0.8	12	NS	-	0.02	0.2	0.94
Vanadium	390	2,400	2,400	2,400	390	390	5,800	NS	46**	NA	NA	NA
Zinc	5,000	5,000	5,000	5,000	23,000	23,000	350,000	NS	61**	50	500	2,350

**NOTES:**

**1. UNRESTRICTED ONSITE USE THRESHOLDS**

Threshold concentrations determined utilizing the values in order of priority: 1) RSL for residential sites (USEPA); 2) in absence of RSL, an ESL for "Soil Tier 1" (SFBRWQCB); 3) in absence of an RSL and ESL, 10xMCL for drinking water on a per-weight basis (SWBDDW). Background levels may be utilized in lieu of the 10xMCL values where applicable. Material shall not exceed the TTLIC (CCR Title 22) threshold regardless of RSL, ESL, MCL or Background threshold values.

**2. UNLINED CELL DISPOSAL THRESHOLDS:**

Threshold concentrations determined utilizing the values in order of priority: 1) RSL for industrial sites (USEPA); 2) in absence of RSL, an ESL for "Leaching to Groundwater" (SFBRWQCB); 3) in absence of an RSL and ESL, 100xMCL for drinking water on a per-weight basis (SWBDDW). Background levels may be utilized in lieu of the 100xMCL values where applicable. Material shall not exceed the TTLIC (CCR Title 22) threshold regardless of RSL, ESL, MCL or Background threshold values.

**3. LINED CELL DISPOSAL THRESHOLDS:**

Threshold concentrations are determined by selecting the highest value of 1) Industrial RSL (USEPA), 2) ESL for "Soil Tier 1" (SFBRWQCB); 3) established Background concentrations, and 4) WQOxDAF. Material shall not exceed the TTLIC (CCR Title 22) threshold regardless of RSL, ESL, Background or WQOxDAF threshold values.

**4. BACKGROUND CONCENTRATION NOTES**

\* "Determination of a Southern California Regional Background Arsenic Concentration in Soil" (G. Chernoff, W. Bosan, and D. Oudiz, California Department of Toxic Substances Control) suggests 12 mg/kg arsenic as an appropriate screening level.

\*\* "Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory" (D. Diamond, D. Baskin, D. Brown, L. Lund, J. Najita, and J. Javandel). Median values shown.

**5. REFERENCES:**

- TTLIC - California Code of Regulations, Title 22, Chapter 11, Article 2.
- EPA RSLs - U.S. EPA Regional Screening Levels (Formerly PRGs), November 2019, Summary Table (TR=1E-06 and THQ=1.0), <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>
- ESLs - San Francisco Bay Regional Water Quality Control Board [http://docs.ppsmixeduse.com/ppp/DEIR/References/2016\\_0222\\_sfrwqcb\\_environmentalscreeninglevels.pdf](http://docs.ppsmixeduse.com/ppp/DEIR/References/2016_0222_sfrwqcb_environmentalscreeninglevels.pdf)
- MCLs - California Code of Regulations, Title 22.

**6. ABBREVIATIONS:**

TTLIC - Total Threshold Limit Concentration	WQO - Water Quality Objective
RSL - Regional Screening Level (USEPA)	DAF - Dilution Attenuation Factor
ESL - Environmental Screening Level (San Francisco Bay RWQCB)	MCL - Maximum Contaminant Level
NS - Not Specified	NIC - Not Included
NA - Not Applicable	

**TABLE 4**  
**SUMMARY OF THRESHOLD CONCENTRATIONS FOR VOCs, SVOCs, PCBs, ORGANOCHLORINE PESTICIDES, AND OTHER CONSTITUENTS WITH WATER QUALITY OBJECTIVES**  
**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED SITE USE (mg/kg)	UNLINED CELL DISPOSAL (mg/kg)	LINED CELL DISPOSAL (mg/kg)	REFERENCE CONCENTRATIONS						
				TTL (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)	10 x MCL (mg/kg)	WQO x DAF (mg/kg)
Alachlor	9.7	41	41	NS	1.0	1.0	1.0	1.0	1.0	0.940
Aluminum	77,000	1,100,000	1,100,000	NS	1,000	15	100,000	NS	100	470
Atrazine	2.4	10	10	NS	1.0	1.0	1.0	1.0	1.0	0.470
Bentazon	1,900	25,000	25,000	NS	100	15	10,000	15	100	8.460
Benzene	1.2	5.1	5.1	NS	1.0	1.0	1.0	1.0	1.0	0.470
Benzo[a]pyrene	0.110	0.29	0.29	NS	1.0	1.0	1.0	1.0	1.0	0.0940
Bis(2-ethylhexyl)phthalate	39	160	160	NS	1.0	1.0	1.0	1.0	1.0	1.880
Boron	16,000	230,000	230,000	NS	10,000	1,000	10,000	100	100	NS
Bromate	0.99	4.7	4.7	NS	1.0	15	1.0	1.0	1.0	4.70
Bromodichloromethane	0.29	1.3	37.6	NS	1.0	1.0	1.0	1.0	1.0	37.6
Bromoform	19	86	86	NS	1.0	1.0	1.0	1.0	1.0	37.6
Carbofuran	320	4,100	4,100	NS	1.0	15	1,000	1.0	1,000	8.460
Carbon Tetrachloride	0.65	2.9	2.9	NS	1.0	1.0	1.0	1.0	1.0	0.235
Chlordane	1.7	2.5	2.5	2.5	1.0	1.0	1.0	1.0	1.0	0.0470
Chlorite (Sodium Salt)	2,300	35,000	35,000	NS	1.0	15	1,000	1.0	1.0	470
Chloroacetic Acid	0.6	28.20	28.2	NS	1.0	1.0	1.0	1.0	1.0	28.20
Chlorobenzene	280	1,300	1,300	NS	1.0	1.0	1.0	1.0	1.0	32.90
Chloroform	0.32	1.4	37.6	NS	1.0	1.0	1.0	1.0	1.0	37.6
Cyanide (CN-)	23	150	120	NS	1.0	1.0	1.0	1.0	1.0	70.5
Dalapon	1,900	25,000	25,000	NS	1.0	15	1,000	1.0	1.0	94.0
Di(2-ethylhexyl)adipate	450	1,900	1,900	NS	1.0	1.0	1.0	1.0	1.0	188.0
Dibromo-3-chloropropane, 1,2-	0.0053	0.064	0.094	NS	1.0	1.0	1.0	1.0	1.0	0.0940
Dibromochloromethane	8.3	39	39	NS	1.0	1.0	1.0	1.0	1.0	37.6
Dibromoethane, 1,2-	0.036	0.16	0.16	NS	1.0	1.0	1.0	1.0	1.0	0.0235
Dichloroacetic Acid	11	46	46	NS	1.0	1.0	1.0	1.0	1.0	28.20
Dichlorobenzene, 1,2-	1,800	9,300	9,300	NS	1.0	1.0	1.0	1.0	1.0	282.0
Dichlorobenzene, 1,4-	2.6	11	11	NS	1.0	1.0	1.0	1.0	1.0	2.35
Dichloroethane, 1,1-	3.6	16	16	NS	1.0	1.0	1.0	1.0	1.0	2.350
Dichloroethane, 1,2-	0.46	2.0	2.0	NS	1.0	1.0	1.0	1.0	1.0	0.235
Dichloroethylene, 1,1-	230	1,000	1,000	NS	1.0	1.0	1.0	1.0	1.0	2.820
Dichloroethylene, 1,2-cis-	160	2,300	2,300	NS	1.0	1.0	1.0	1.0	1.0	0.06
Dichloroethylene, 1,2-trans-	1,600	23,000	23,000	NS	1.0	1.0	1.0	1.0	1.0	0.1
Dichlorophenoxy Acetic Acid, 2,4-(2,4-D)	100	100	100	100	1.0	1.0	1.0	1.0	1.0	0.7
Dichloropropane, 1,2-	2.5	11.0	4.4	NS	1.0	1.0	1.0	1.0	1.0	0.05
Dichloropropene, 1,3-	2	8	23,000	NS	1.0	1.0	1.0	1.0	1.0	0.005
Dinoseb	63	820	820	NS	1.0	15	820	15	100	0.07
Diquat	140	1,800	1,800	NS	1.0	15	1,000	1.0	1.0	0.2
Endothall	1,300	16,000	16,000	NS	1.0	15	1,000	1.0	1.0	1
Endrin	0.20	0.20	0.20	0.20	1.0	1.0	1.0	1.0	1.0	0.02
Ethylbenzene	5.8	25.0	141.0	NS	1.0	1.0	1.0	1.0	1.0	141.0
Fluorine (Soluble Fluoride)	4,700	70,000	18,000	NS	1.0	1.0	1.0	1.0	1.0	20
Glyphosate	6,300	82,000	82,000	NS	1.0	15	1,000	1.0	1.0	7
Heptachlor	0.13	0.63	0.63	4.7	1.0	1.0	1.0	1.0	1.0	0.0001
Heptachlor Epoxide	0.07	0.33	0.33	4.7	1.0	1.0	1.0	1.0	1.0	0.0001
Hexachlorobenzene	0.21	0.96	0.96	NS	1.0	1.0	1.0	1.0	1.0	0.01
Hexachlorocyclopentadiene	1.8	7.5	23.5	NS	1.0	1.0	1.0	1.0	1.0	0.5
Iron	55,000	820,000	820,000	NS	1,000	15	10,000	100	100	141.0
Lindane (gamma-BHC)	0.57	2.5	2.5	4.0	1.0	1.0	1.0	1.0	1.0	0.002
Manganese	1,800	26,000	26,000	NS	1.0	1.0	1.0	1.0	1.0	0.500
Methoxychlor	100	100	100	100	1.0	1.0	1.0	1.0	1.0	0.3
Methyl tert-Butyl Ether (MTBE)	47	210	210	NS	1.0	1.0	1.0	1.0	1.0	0.13
Methylene Chloride	57	1,000	1,000	NS	1.0	1.0	1.0	1.0	1.0	0.05
Molinate	130	1,600	1,600	NS	1.0	1.0	1.0	1.0	1.0	0.2
Nitrate	130,000	1,900,000	1,900,000	NS	1,000	15	100,000	1.0	100	4,700
Nitrate + Nitrite (as N)	100	4,710	4,710	NS	1.0	1.0	1.0	1.0	1.0	100
Nitrite	7,800	120,000	120,000	NS	1.0	1.0	1.0	1.0	1.0	470
Oxamyl	1,600	21,000	21,000	NS	1.0	1.0	1.0	1.0	1.0	0.5

**TABLE 4**  
**SUMMARY OF THRESHOLD CONCENTRATIONS FOR VOCs, SVOCs, PCBs, ORGANOCHLORINE PESTICIDES, AND OTHER CONSTITUENTS WITH WATER QUALITY OBJECTIVES**  
**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED SITE USE (mg/kg)	UNLINED CELL DISPOSAL (mg/kg)	LINED CELL DISPOSAL (mg/kg)	REFERENCE CONCENTRATIONS						
				TTLc (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)	10 x MCL (mg/kg)	WQO x DAF (mg/kg)
Pentachlorophenol	1.0	4.0	4.0	17	1.0	1.0	1.0	1.0	0.01	0.470
Perchlorate and Perchlorate Salts	55	820	820	NS	5	5	5	5	0.06	2.820
Picloram	4,400	57,000	57,000	NS	4,400	5	4,400	5	5	235
Polychlorinated Biphenyls (PCBs)	0.018	0.077	0.235	50	0.018	5	5	5	0.005	0.235
Silvex (2,4,5-TP)	10	10	10	10	510	5	5	5	0.5	23.5
Simazine	4.5	19	19	NS	4.5	5	5	5	0.04	1.880
Sodium Cyanide	78	1,200	1,200	NS	78	5	1,200	5	2	94.0
Styrene	6,000	35,000	35,000	NS	6,000	5	6,000	5	1	47.0
TCDD, 2,3,7,8-	4.8E-06	2.2E-05	2.2E-05	0.01	4.8E-06	4.8E-06	4.8E-06	4.8E-06	3.0E-07	1.41E-05
Tetrachloroethane, 1,1,2,2-	0.6	2.7	2.7	NS	0.6	5	5	5	0.01	0.470
Tetrachloroethylene	24	100	100	NS	24	5	5	5	0.05	2.350
Thallium (Soluble Salts)	0.78	12	12	700	0.78	NS	12	NS	0.02	0.940
Thiobencarb	630	8,200	8,200	NS	630	NS	8,200	NS	0.7	32.9
Toluene	4,900	47,000	47,000	NS	4,900	NS	47,000	NS	1.5	70.5
Toxaphene	0.49	2.1	2.1	5.0	0.49	0.46	2.1	1.8	0.03	1.410
Trichloro-1,2,2-trifluoroethane, 1,1,2-	6,700	28,000	170,000	NS	6,700	NS	28,000	NS	12	564.0
Trichloroacetic Acid	7.8	33	33	NS	7.8	NS	33	NS	0.6	28.2
Trichlorobenzene, 1,2,4-	24	110	110	NS	24	NS	110	NS	0.05	2.350
Trichloroethane, 1,1,1-	8,100	36,000	36,000	NS	8,100	NS	36,000	NS	2	94.0
Trichloroethane, 1,1,2-	1.1	5.0	5.0	NS	1.1	NS	5.0	NS	0.05	2.35
Trichloroethylene	0.94	6.0	6.0	2,040	0.94	NS	6.0	NS	0.05	2.35
Trichlorofluoromethane	23,000	350,000	350,000	NS	23,000	NS	350,000	NS	1.5	70.5
Uranium (Soluble Salts)	16	230	3,500	NS	16	NS	230	NS	0.2	9.40
Vinyl Chloride	0.059	1.7	1.7	NS	0.059	NS	1.7	NS	0.005	0.235
Xylenes	580	2,500	2,500	NS	580	NS	2,500	NS	17.5	823

**NOTES:**

**1. UNRESTRICTED ONSITE USE THRESHOLDS**

Threshold concentrations determined utilizing the values in order of priority: 1) RSL for residential sites (USEPA); 2) in absence of RSL, an ESL for "Soil Tier 1" (SFBRWQCB); 3) in absence of an RSL and ESL, 10xMCL for drinking water on a per-weight basis (SWBDDW). Material shall not exceed the TTLc (CCR Title 22) threshold regardless of RSL, ESL, or MCL threshold values.

**2. UNLINED CELL DISPOSAL THRESHOLDS:**

Threshold concentrations determined utilizing the values in order of priority: 1) RSL for industrial sites (USEPA); 2) in absence of RSL, an ESL for "Leaching to Groundwater" (SFBRWQCB); 3) in absence of an RSL and ESL, 100xMCL for drinking water on a per-weight basis (SWBDDW). Material shall not exceed the TTLc (CCR Title 22) threshold regardless of RSL, ESL, or MCL threshold values.

**3. LINED CELL DISPOSAL THRESHOLDS:**

Threshold concentrations are determined by selecting the highest value of 1) industrial RSL (USEPA), 2) ESL for "Soil Tier 1" (SFBRWQCB); 3) established Background concentrations, and 4) WQOxDAF. Material shall not exceed the TTLc (CCR Title 22) threshold regardless of RSL, ESL, or WQOxDAF threshold values.

**4. REFERENCES:**

- TTLc - California Code of Regulations, Title 22, Chapter 11, Article 2.
- EPA RSLs - U.S. EPA Regional Screening Levels (Formerly PRGs), November 2019, Summary Table (TR=1E-06 and THQ=1.0), <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>
- ESLs - San Francisco Bay Regional Water Quality Control Board [http://docs.ppsmixeduse.com/ppp/DEIR/References/2016\\_0222\\_sfrwqcb\\_environmentalscreeninglevels.pdf](http://docs.ppsmixeduse.com/ppp/DEIR/References/2016_0222_sfrwqcb_environmentalscreeninglevels.pdf)
- MCLs - California Code of Regulations, Title 22.
- Lahontan Basin Water Quality Objectives (Basin Plan) [http://www.waterboards.ca.gov/lahtontan/water\\_issues/programs/basin\\_plan/docs/ch3\\_wqobjectives.pdf](http://www.waterboards.ca.gov/lahtontan/water_issues/programs/basin_plan/docs/ch3_wqobjectives.pdf)

**5. ABBREVIATIONS:**

TTLc - Total Threshold Limit Concentration

RSL - Regional Screening Level (USEPA)

ESL - Environmental Screening Level (San Francisco Bay RWQCB)

NS - Not Specified

NA - Not Applicable

WQO - Water Quality Objective

DAF - Dilution Attenuation Factor

MCL - Maximum Contaminant Level

NIC - Not Included

**TABLE 5**  
**SUMMARY OF THRESHOLD CONCENTRATIONS FOR VOCs, SVOCs, PCBs, ORGANOCHLORINE PESTICIDES,**  
**AND OTHER CONSTITUENTS WITHOUT WATER QUALITY OBJECTIVES**  
**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED USE (mg/kg)	UNLINED CELL DISPOSAL LIMITS (mg/kg)	LINED CELL DISPOSAL LIMITS (mg/kg)	REFERENCE CONCENTRATIONS				
				TTLC (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)
ALAR (Daminozide)	30	130	130	NS	30	NS	130	NS
Acephate	76	260	260	NS	76	NS	980	NS
Acetaldehyde	11	49	49	NS	11	NS	49	NS
Acetochlor	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
Acetone	61,000	670,000	670,000	NS	61,000	0.50	670,000	0.50
Acetone Cyanohydrin	2.80E+06	1.20E+07	1.20E+07	NS	2.80E+06	NS	1.20E+07	NS
Acetonitrile	810	3,400	3,400	NS	810	NS	3,400	NS
Acetophenone	7,800	120,000	120,000	NS	7,800	NS	120,000	NS
Acetylaminofluorene, 2-	0.14	0.60	0.60	NS	0.14	NS	0.60	NS
Acrolein	0.14	0.60	0.60	NS	0.14	NS	0.60	NS
Acrylamide	0.24	4.6	4.6	NS	0.24	NS	4.6	NS
Acrylic Acid	99	420	420	NS	99	NS	420	NS
Acrylonitrile	0.25	1.1	1.1	NS	0.25	NS	1.1	NS
Adiponitrile	8.50E+06	3.60E+07	3.60E+07	NS	8.50E+06	NS	3.60E+07	NS
Alachlor	9.7	41	41	NS	9.7	NS	41	NS
Aldicarb	63	820	820	NS	63	NS	820	NS
Aldicarb Sulfone	63	820	820	NS	63	NS	820	NS
Aldrin	0.039	0.18	0.18	2.4	0.039	0.036	0.18	5.0
Allyl (Metsulfuron-methyl)	16,000	210,000	210,000	NS	16,000	NS	210,000	NS
Allyl Alcohol	3.5	1.5	1.5	NS	3.5	NS	1.5	NS
Allyl Chloride	0.72	3.2	3.2	NS	0.72	NS	3.2	NS
Aluminum Phosphide	31	470	470	NS	31	NS	470	NS
Amdro (Hydramethylnon)	1100	14,000	14,000	NS	1,100	NS	14,000	NS
Ametryn	570	7,400	7,400	NS	570	NS	7,400	NS
Aminobiphenyl, 4-	0.026	0.11	0.11	NS	0.026	NS	0.11	NS
Aminophenol, m-	5,100	66,000	66,000	NS	5,100	NS	66,000	NS
Aminophenol, p-	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
Amitraz	160	2,100	2,100	NS	160	NS	2,100	NS
Ammonium Sulfamate	16,000	230,000	230,000	NS	16,000	NS	230,000	NS
Amyl Alcohol, tert-	82	340	340	NS	82	NS	340	NS
Aniline	95	400	400	NS	95	NS	400	NS
Anthraquinone, 9,10-	14	57	57	NS	14	NS	57	NS
Antimony Pentoxide	39	500	500	500	39	NS	580	NS
Antimony Tetroxide	31	470	470	500	31	NS	470	NS
Antimony Trioxide	500	500	500	500	280,000	NS	1,200,000	NS
Apollo (Clofentezine)	820	11,000	11,000	NS	820	NS	11,000	NS
Aramite (Sulfurous acid)	22	92	92	NS	22	NS	92	NS
Arsine	0.27	4.1	4.1	NS	0.27	NS	4.1	NS
Assure (Quizalofop-ethyl)	570	7,400	7,400	NS	570	NS	7,400	NS
Asulam	3,200	41,000	41,000	NS	3,200	NS	41,000	NS
Auramine	0.62	2.6	2.6	NS	0.62	NS	2.6	NS
Avermectin B1	25	330	330	NS	25	NS	330	NS
Azobenzene	5.6	26	26	NS	5.6	NS	26	NS
Azodicarbonamide	8,600	40,000	40,000	NS	8,600	NS	40,000	NS
Baygon	250	3,300	3,300	NS	250	NS	3,300	NS
Bayleton (Triadimefon)	1,900	28,000	28,000	NS	2,100	NS	28,000	NS
Baythroid (Cyfluthrin)	1,600	21,000	21,000	NS	1,600	NS	21,000	NS
Benfluralin	390	5,800	5,800	NS	390	NS	5,800	NS
Benomyl	3,200	41,000	41,000	NS	3,200	NS	41,000	NS
Benzaldehyde	7,800	120,000	120,000	NS	7,800	NS	120,000	NS
Benzenediamine-2-methyl sulfate, 1,4-	5.4	23	23	NS	5.4	NS	23	NS
Benzenethiol	78	1,200	1,200	NS	78	NS	1,200	NS
Benzidine	0.00053	0.01	0.01	NS	0.00053	NS	0.01	NS
Benzoic Acid	250,000	3,300,000	3,300,000	NS	250,000	NS	3,300,000	NS
Benzotrithloride	0.053	0.25	0.25	NS	0.053	NS	0.25	NS
Benzyl Alcohol	6,300	82,000	82,000	NS	6,300	NS	82,000	NS
Benzyl Chloride	1.1	4.8	4.8	NS	1.1	NS	4.8	NS



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**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED USE (mg/kg)	UNLINED CELL DISPOSAL LIMITS (mg/kg)	LINED CELL DISPOSAL LIMITS (mg/kg)	REFERENCE CONCENTRATIONS				
				TTL (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)
Bidrin (Dicrotophos)	1.9	25	25	NS	1.9	NS	25	NS
Bifentox	570	7,400	7,400	NS	570	NS	7,400	NS
Biphenethrin	950	12,000	12,000	NS	950	NS	12,000	NS
Biphenyl, 1,1'-	47	200	200	NS	47	0.65	200	0.65
Bis(2-chloro-1-methylethyl) ether	310	47,000	47,000	NS	3100	NS	47,000	NS
Bis(2-chloroethoxy)methane	190	2,500	2,500	NS	190	NS	2,500	NS
Bis(2-chloroethyl)ether	0.23	1.0	1.0	NS	0.23	0.00008	1.0	0.00008
Bis(chloromethyl)ether	8.30E-05	3.60E-04	3.60E-04	NS	8.30E-05	NS	3.60E-04	NS
Bisphenol A	3,200	41,000	41,000	NS	3,200	NS	41,000	NS
Boron Trichloride	160,000	2,300,000	2,300,000	NS	160,000	NS	2,300,000	NS
Boron Trifluoride	3,100	47,000	47,000	NS	3,100	NS	47,000	NS
Bromo-2-chloroethane, 1-	0.026	0.11	0.11	NS	0.026	NS	0.11	NS
Bromobenzene	290	1,800	1,800	NS	290	NS	1,800	NS
Bromochloromethane	150	630	630	NS	150	NS	630	NS
Bromomethane	6.8	30	30	NS	6.8	NS	30	NS
Bromophos	390	5,800	5,800	NS	390	NS	5,800	NS
Bromoxynil	5.3	22	22	NS	5.3	NS	22	NS
Bromoxynil Octanoate	6.7	32	32	NS	6.7	NS	32	NS
Butadiene, 1,3-	0.076	0.33	0.33	NS	0.076	NS	0.33	NS
Butanol, N-	7,800	120,000	120,000	NS	7,800	NS	120,000	NS
Butyl Benzyl Phthlate	290	1,200	1,200	NS	290	NS	1,200	NS
Butyl alcohol, sec-	130,000	1,500,000	1,500,000	NS	130,000	NS	1,500,000	NS
Butylate	3,900	58,000	58,000	NS	3,900	NS	58,000	NS
Butylated hydroxyanisole	2,700	11,000	11,000	NS	2,700	NS	11,000	NS
Butylated hydroxytoluene	150	640	640	NS	150	NS	640	NS
Butylbenzene, n-	3,900	58,000	58,000	NS	3,900	NS	58,000	NS
Butylbenzene, sec-	7,800	120,000	120,000	NS	7,800	NS	120,000	NS
Butylbenzene, tert-	7,800	120,000	120,000	NS	7,800	NS	120,000	NS
Calcyllic Acid	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
Caprolactam	31,000	400,000	400,000	NS	31,000	NS	400,000	NS
Captan	3.6	15	15	NS	3.6	NS	15	NS
Captaf	240	1,000	1,000	NS	240	NS	1,000	NS
Carbaryl	6,300	82,000	82,000	NS	6,300	NS	82,000	NS
Carbon Disulfide	770	3,500	3,500	NS	770	NS	3,500	NS
Carbosulfan	630	8,200	8,200	NS	630	NS	8,200	NS
Carboxin	6,300	82,000	82,000	NS	6,300	NS	82,000	NS
Ceric oxide	1,300,000	5,400,000	5,400,000	NS	1,300,000	NS	5,400,000	NS
Chloral Hydrate	7,800	120,000	120,000	NS	7,800	NS	120,000	NS
Chloramben	950	12,000	12,000	NS	950	NS	12,000	NS
Chloranil	1.3	5.7	5.7	NS	1.3	NS	5.7	NS
Chlordecone (Kepone)	0.054	0.23	0.23	21	0.054	NS	0.23	NS
Chlorfenvinphos	44	570	570	NS	44	NS	570	NS
Chlorimuron, Ethyl-	5,700	74,000	74,000	NS	5,700	NS	74,000	NS
Chlorine	0.18	0.78	0.78	NS	0.18	NS	0.78	NS
Chlorine Dioxide	2,300	34,000	34,000	NS	2,300	NS	34,000	NS
Chloro-1,1-difluoroethane, 1-	54,000	230,000	230,000	NS	54,000	NS	230,000	NS
Chloro-1,3-butadiene, 2-	0.01	0.044	0.044	NS	0.01	NS	0.044	NS
Chloro-2-methylaniline HCl, 4-	1.2	5.0	5.0	NS	1.2	NS	5.0	NS
Chloro-2-methylaniline, 4-	5.4	23	23	NS	5.4	NS	23	NS
Chloroacetaldehyde, 2-	2.6	12	12	NS	2.6	NS	12	NS
Chloroacetophenone, 2-	43,000	180,000	180,000	NS	43,000	NS	180,000	NS
Chloroaniline, p-	2.7	11	11	NS	2.7	0.0039	11	0.0039
Chlorobenzilate	4.9	21	21	NS	4.9	NS	21	NS
Chlorobenzoic Acid, p-	1,900	25,000	25,000	NS	1,900	NS	25,000	NS
Chlorobenzotrifluoride, 4-	210	2,500	2,500	NS	210	NS	2,500	NS
Chlorobutane, 1-	3,100	47,000	47,000	NS	3,100	NS	47,000	NS
Chlorodifluoromethane	49,000	210,000	210,000	NS	49,000	NS	210,000	NS



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ANALYTE	UNRESTRICTED USE (mg/kg)	UNLINED CELL DISPOSAL LIMITS (mg/kg)	LINED CELL DISPOSAL LIMITS (mg/kg)	REFERENCE CONCENTRATIONS				
				TTLIC (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)
Chloroethanol, 2-	1,600	23,000	23,000	NS	1,600	NS	23,000	NS
Chloromethane	110	460	460	NS	110	2.9	460	2.9
Chloromethyl Methyl Ether	0.02	0.089	0.089	NS	0.02	NS	0.089	NS
Chloronitrobenzene, o-	1.8	7.7	7.7	NS	1.8	NS	7.7	NS
Chloronitrobenzene, p-	63	360	360	NS	9.0	NS	38	NS
Chlorophenol, 2-	390	5,800	5,800	NS	390	0.0120	5,800	0.0120
Chloropicrin	2.0	8.2	8.2	NS	2.0	NS	8.2	NS
Chlorothalonil	180	740	740	NS	180	NS	740	NS
Chlorotoluene, o-	1,600	23,000	23,000	NS	1,600	NS	23,000	NS
Chlorotoluene, p-	1,600	23,000	23,000	NS	1,600	NS	23,000	NS
Chlorozotacin	0.0023	0.0096	0.0096	NS	0.0023	NS	0.0096	NS
Chlorpropham	3,200	41,000	41,000	NS	3,200	NS	41,000	NS
Chlorpyrifos	63	820	820	NS	63	NS	820	NS
Chlorpyrifos Methyl	630	8,200	8,200	NS	630	NS	8,200	NS
Chlorsulfuron	3,200	41,000	41,000	NS	3,200	NS	41,000	NS
Chlorthiophos	51	660	660	NS	51	NS	660	NS
Chromium(III), Insoluble Salts	2,500	2,500	2,500	2,500	120,000	120,000	1,800,000	NS
Chromium(VI)	0.30	6.3	6.3	500	0.30	0.3	6.3	NS
Cresol, m-	3,200	41,000	41,000	NS	3,200	NS	41,000	NS
Cresol, o-	3,200	41,000	41,000	NS	3,200	NS	41,000	NS
Cresol, p-	6,300	82,000	82,000	NS	6,300	NS	82,000	NS
Cresol, p-chloro-m-	6,300	82,000	82,000	NS	6,300	NS	82,000	NS
Cresols	6,300	82,000	82,000	NS	6,300	NS	82,000	NS
Crotonaldehyde, trans-	0.37	1.7	1.7	NS	0.37	NS	1.7	NS
Cumene	1,900	9,900	9,900	NS	1,900	NS	9,900	NS
Cupferron	2.5	10	10	NS	2.5	NS	10	NS
Cyanazine	0.65	2.7	2.7	NS	0.65	NS	2.7	NS
<b>Cyanides</b>								
Calcium Cyanide	78	1,200	1,200	NS	78	NS	1,200	NS
Copper Cyanide	390	2,500	2,500	2,500	390	NS	5,800	NS
Cyanogen	78	1,200	1,200	NS	78	NS	1,200	NS
Cyanogen Bromide	7,000	110,000	110,000	NS	7,000	NS	110,000	NS
Cyanogen Chloride	3,900	58,000	58,000	NS	3,900	NS	58,000	NS
Hydrogen Cyanide	23	150	150	NS	23	NS	150	NS
Potassium Cyanide	160	2,300	2,300	NS	160	NS	2,300	NS
Potassium Silver Cyanide	390	500	500	500	390	NS	5,800	NS
Silver Cyanide	500	500	500	500	7,800	NS	120,000	NS
Thiocyanates	16	230	230	NS	16	NS	230	NS
Zinc Cyanide	3,900	5,000	5,000	5,000	3,900	NS	58,000	NS
Cyclohexane	6,500	27,000	27,000	NS	6,500	NS	27,000	NS
Cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	27	110	110	NS	27	NS	110	NS
Cyclohexanone	28,000	130,000	130,000	NS	28,000	NS	130,000	NS
Cyclohexene	310	3,100	3,100	NS	310	NS	3,100	NS
Cyclohexylamine	16,000	23,000	23,000	NS	16,000	NS	23,000	NS
Cyhalothrin/karate	63	820	820	NS	63	NS	820	NS
Cyromazine	32000	415,000	415,000	NS	32,000	NS	415,000	NS
DDD	1.0	1.0	1.0	1.0	1.9	2.7	9.6	750.0
DDE, p,p'-	1.0	1.0	1.0	1.0	2.0	1.9	9.3	1100.0
DDT	1.0	1.0	1.0	1.0	1.9	1.9	8.5	4.3
Dacthal (Chlorthal-dimethyl)	6,300	8,200	8,200	NS		NS	8,200	NS
Decabromodiphenyl ether, 2,2',3,3',4,4',5,5',6,6'- (BDE-209)	440	3,300	3,300	NS	440	NS	3,300	NS
Demeton	2.5	33	33	NS	2.5	NS	33	NS
Diallate	8.9	38	38	NS	8.9	NS	38	NS
Diazinon	44	570	570	NS	44	NS	570	NS
Dibenzothiophene	780	12,000	12,000	NS	780	NS	12,000	NS
Dibromobenzene, 1,4-	780	12,000	12,000	NS	780	NS	12,000	NS

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ANALYTE	UNRESTRICTED USE (mg/kg)	UNLINED CELL DISPOSAL LIMITS (mg/kg)	LINED CELL DISPOSAL LIMITS (mg/kg)	REFERENCE CONCENTRATIONS				
				TYLC (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)
Dibromomethane (Methylene Bromide)	24	99	99	NS	24	NS	99	NS
Dibutyltin Compounds	19	250	250	NS	19	NS	250	NS
Dicamba	1,900	25,000	25,000	NS	1,900	NS	25,000	NS
Dichloro-2-butene, 1,4-	0.0021	0.0094	0.0094	NS	0.0021	NS	0.0094	NS
Dichloro-2-butene, cis-1,4-	0.0074	0.032	0.032	NS	0.0074	NS	0.032	NS
Dichloro-2-butene, trans-1,4-	0.0074	0.032	0.032	NS	0.0074	NS	0.032	NS
Dichlorobenzidine, 3,3'-	1.2	5.1	5.1	NS	1.2	0.012	5.1	0.012
Dichlorobenzophenone, 4,4'-	570	7,400	7,400	NS	570	NS	7,400	NS
Dichlorodifluoromethane	87	370	370	NS	87	NS	370	NS
Dichlorophenol, 2,4-	190	2,500	2,500	NS	190	NS	2,500	NS
Butanoic Acid, 4-[2,4-Dichlorophenoxy]-	1900	25,000	25,000	NS	1,900	NS	25,000	NS
Dichloropropane, 1,3-	1,600	23,000	23,000	NS	1,600	0.059	23,000	0.059
Dichloropropanol, 2,3-	190	2,500	2,500	NS	190	NS	2,500	NS
Dichlorvos	1.9	7.9	7.9	NS	1.9	NS	7.9	NS
Dicyclopentadiene	1.3	5.4	5.4	NS	1.3	NS	5.4	NS
Dieldrin	0.034	0.14	0.14	8.0	0.034	0.00017	0.14	0.00017
Diethanolamine	130	1,600	1,600	NS	130	NS	1,600	NS
Diethylene Glycol Monobutyl Ether	1,900	24,000	24,000	NS	1,900	NS	24,000	NS
Diethylene Glycol Monoethyl Ether	3,800	48,000	48,000	NS	3,800	NS	48,000	NS
Diethylformamide	78	1,200	1,200	NS	78	NS	1,200	NS
Diethylstilbestrol	0.0016	0.0066	0.0066	NS	0.0016	NS	0.0066	NS
Difenzoquat	5,200	68,000	68,000	NS	5,200	NS	68,000	NS
Diffubenzuron	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
Difluoroethane, 1,1-	48,000	200,000	200,000	NS	48,000	NS	200,000	NS
Dihydrosafrole	9.9	45	45	NS	9.9	NS	45	NS
Diisopropyl Ether	2,200	9,400	9,400	NS	2,200	NS	9,400	NS
Diisopropyl Methylphosphonate	6,300	93,000	93,000	NS	6,300	NS	93,000	NS
Dimethipin	1,400	18,000	18,000	NS	1,400	NS	18,000	NS
Dimethoate	140	1,800	1,800	NS	140	NS	1,800	NS
Dimethoxybenzidine, 3,3'-	0.34	1.4	1.4	NS	0.34	NS	1.4	NS
Dimethyl methylphosphonate	320	1,400	1,400	NS	320	NS	1,400	NS
Dimethylamino azobenzene [p-]	0.12	0.50	0.50	NS	0.12	NS	0.50	NS
Dimethylaniline HCl, 2,4-	0.94	4.0	4.0	NS	0.94	NS	4.0	NS
Dimethylaniline, 2,4-	2.7	11	11	NS	2.7	NS	11	NS
Dimethylaniline, N,N-	76	120	120	NS	26	NS	120	NS
Dimethylbenzidine, 3,3'-	0.049	0.21	0.21	NS	0.049	NS	0.21	NS
Dimethylformamide	2,600	15,000	15,000	NS	2,600	NS	15,000	NS
Dimethylhydrazine, 1,1-	0.057	0.24	0.24	NS	0.057	NS	0.24	NS
Dimethylhydrazine, 1,2-	0.00088	0.0041	0.0041	NS	0.00088	NS	0.0041	NS
Dimethylphenol, 2,4-	1,300	16,000	16,000	NS	1,300	0.67	16,000	0.67
Dimethylphenol, 2,6-	38	490	490	NS	38	NS	490	NS
Dimethylphenol, 3,4-	63	820	820	NS	63	NS	820	NS
Dimethylvinylchloride	1.1	4.8	4.8	NS	1.1	NS	4.8	NS
Dinitro-o-cresol, 4,6-	5.1	66	66	NS	5.1	NS	66	NS
Dinitro-o-cyclohexyl Phenol, 4,6-	130	1,600	1,600	NS	130	NS	1,600	NS
Dinitrobenzene, 1,2-	6.3	82	82	NS	6.3	NS	82	NS
Dinitrobenzene, 1,3-	6.3	82	82	NS	6.3	NS	82	NS
Dinitrobenzene, 1,4-	6.3	82	82	NS	6.3	NS	82	NS
Dinitrophenol, 2,4-	130	1,600	1,600	NS	130	0.11	1,600	0.11
Dinitrotoluene Mixture, 2,4/2,6-	0.80	7.4	7.4	NS	0.80	NS	7.4	NS
Dinitrotoluene, 2,4-	1.7	7.4	7.4	NS	1.7	0.0018	7.4	0.0018
Dinitrotoluene, 2,6-	0.36	1.5	1.5	NS	0.36	NS	1.5	NS
Dinitrotoluene, 2-Amino-4,6-	150	2,300	2,300	NS	150	NS	2,300	NS
Dinitrotoluene, 4-Amino-2,6-	150	2,300	2,300	NS	150	NS	2,300	NS
Dinitrotoluene, Technical grade	1.2	5.1	5.1	NS	1.2	NS	5.1	NS
Dioxane, 1,4-	5.3	24	24	NS	5.3	0.00023	24	0.00023
Hexachlorodibenzo-p-dioxin, Mixture	0.00010	0.00047	0.00047	NS	0.00010	NS	0.00047	NS

**TABLE 5**  
**SUMMARY OF THRESHOLD CONCENTRATIONS FOR VOCs, SVOCs, PCBs, ORGANOCHLORINE PESTICIDES,**  
**AND OTHER CONSTITUENTS WITHOUT WATER QUALITY OBJECTIVES**  
**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED USE (mg/kg)	UNLINED CELL DISPOSAL LIMITS (mg/kg)	LINED CELL DISPOSAL LIMITS (mg/kg)	REFERENCE CONCENTRATIONS				
				TTIC (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)
Diphenamid	1,900	25,000	25,000	NS	1,900	NS	25,000	NS
Diphenyl Sulfone	51	660	660	NS	51	NS	660	NS
Diphenylamine	6,300	82,000	82,000	NS	6,300	NS	82,000	NS
Diphenylhydrazine, 1,2-	0.68	2.9	2.9	NS	0.68	NS	2.9	NS
Direct Black 38	0.076	0.32	0.32	NS	0.076	NS	0.32	NS
Direct Blue 6	0.073	0.31	0.31	NS	0.073	NS	0.31	NS
Direct Brown 95	0.081	0.34	0.34	NS	0.081	NS	0.34	NS
Disulfoton	2.5	33	33	NS	2.5	NS	33	NS
Dithiane, 1,4-	780	12,000	12,000	NS	780	NS	12,000	NS
Diuron	130	1,600	1,600	NS	130	NS	1,600	NS
Dodine	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
EPTC	3,900	28,000	58,000	NS	3,900	NS	58,000	NS
Endosulfan	470	7,000	7,000	NS	470	0.0046	7,000	0.0046
Epichlorohydrin	19	82	82	NS	19	NS	82	NS
Epoxybutane, 1,2-	160	670	670	NS	160	NS	670	NS
Ethephon	320	4,100	4,100	NS	320	NS	4,100	NS
Ethion	32	410	410	NS	32	NS	410	NS
Ethoxyethanol Acetate, 2-	2,600	14,000	14,000	NS	2,600	NS	14,000	NS
Ethoxyethanol, 2-	5,200	47,000	47,000	NS	5,200	NS	47,000	NS
Ethyl Acetate	620	2,600	2,600	NS	620	NS	2,600	NS
Ethyl Acrylate	47	210	210	NS	47	NS	210	NS
Ethyl Chloride (Chloroethane)	14,000	57,000	57,000	NS	14,000	NS	57,000	NS
Ethyl Ether	16,000	230,000	230,000	NS	16,000	NS	230,000	NS
Ethyl Methacrylate	1,800	7,600	7,600	NS	1,800	NS	7,600	NS
Ethyl-p-nitrophenyl Phosphonate	0.63	8.2	8.2	NS	0.630	NS	8.2	NS
Ethylene Cyanohydrin	4,400	57,000	57,000	NS	4,400	NS	57,000	NS
Ethylene Diamine	7,000	110,000	110,000	NS	7,000	NS	110,000	NS
Ethylene Glycol	130,000	1,600,000	1,600,000	NS	130,000	NS	1,600,000	NS
Ethylene Glycol Monobutyl Ether	6,300	82,000	82,000	NS	6,300	NS	82,000	NS
Ethylene Oxide	0.00	0.03	0.03	NS	0.002	NS	0.025	NS
Ethylene Thiourea	5.1	51	51	NS	5.1	NS	51	NS
Ethyleneimine	0.0027	0.012	0.012	NS	0.0027	NS	0.012	NS
Ethylphthalyl Ethyl Glycolate	190,000	2,500,000	2,500,000	NS	190,000	NS	2,500,000	NS
Tribenuron-methyl (Express)	510	6,600	6,600	NS	510	NS	6,600	NS
Fenamiphos	16	210	210	NS	16	NS	210	NS
Fenpropathrin	1,600	21,000	21,000	NS	1,600	NS	21,000	NS
Fluometuron	820	11,000	11,000	NS	820	NS	11,000	NS
Fluoride	3,100	47,000	47,000	18,000	3,100	NS	47,000	NS
Fluridone	5,100	66,000	66,000	NS	5,100	NS	66,000	NS
Flurprimidol	2,500	33,000	33,000	NS	2,500	NS	33,000	NS
Flutolanil	32,000	410,000	410,000	NS	32,000	NS	410,000	NS
Fluvalinate	630	8,200	8,200	NS	630	NS	8,200	NS
Folpet	5,700	74,000	74,000	NS	5,700	NS	74,000	NS
Fomesafen	160	2,100	2,100	NS	160	NS	2,100	NS
Fonofos	130	1,600	1,600	NS	130	NS	1,600	NS
Formaldehyde	11	50	50	NS	11	NS	50	NS
Formic Acid	29	120	120	NS	29	NS	120	NS
Furans	-	-	-	-	-	-	-	-
-Dibenzofuran	73	1,000	1,000	NS	73	NS	1,000	NS
-Furan	73	1,000	1,000	NS	73	NS	1,000	NS
-Tetrahydrofuran	18,000	96,000	96,000	NS	18,000	NS	94,000	NS
Furazolidone	0.14	0.60	0.60	NS	0.14	NS	0.60	NS
Furfural	210	2,600	2,600	NS	210	NS	2,600	NS
Furium	0.36	1.5	1.5	NS	0.36	NS	1.5	NS
Furmecycloz	18	77	77	NS	18	NS	77	NS
Glufosinate, Ammonium	350	4,900	4,900	NS	380	NS	4,900	NS
Glutaraldehyde	6,000	70,000	70,000	NS	6,000	NS	70,000	NS

**TABLE 5**  
**SUMMARY OF THRESHOLD CONCENTRATIONS FOR VOCs, SVOCs, PCBs, ORGANOCHLORINE PESTICIDES,**  
**AND OTHER CONSTITUENTS WITHOUT WATER QUALITY OBJECTIVES**  
**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED USE (mg/kg)	UNLINED CELL DISPOSAL LIMITS (mg/kg)	LINED CELL DISPOSAL LIMITS (mg/kg)	REFERENCE CONCENTRATIONS				
				TTLCL (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)
Glycidyl	23	210	210	NS	23	NS	210	NS
Goal (oxyfluorfen)	7.4	31	31	NS	7.4	NS	31	NS
Guanidine	780	12,000	12,000	NS	780	NS	12,000	NS
Guanidine Chloride	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
Guthion (Azinphos-methyl)	190	2,500	2,500	NS	190	NS	2,500	NS
Haloxypop, Methyl	3.2	41	41	NS	3.2	NS	41	NS
Harmony (Thifensulfuron-methyl)	2,700	35,000	35,000	NS	2,700	NS	35,000	NS
Hexabromobenzene	160	2,300	2,300	NS	160	NS	2,300	NS
Hexabromodiphenyl ether, 2,2',4,4',5,5'- (BDE-153)	13	160	160	NS	13	NS	160	NS
Hexachlorobutadiene	1.2	5.3	5.3	NS	1.2	0.68	5.3	0.68
Hexachlorocyclohexane, Alpha-	0.086	0.36	0.36	NS	0.086	NS	0.36	NS
Lindane, Hexachlorocyclohexane, Beta-	0.57	2.5	2.5	NS	0.57	0.0098	2.5	0.0098
Hexachlorocyclohexane, Technical	0.30	1.3	1.3	NS	0.30	NS	1.3	NS
Hexachloroethane	1.8	8.0	8.0	NS	1.8	1.1	8.0	1.1
Hexachlorophene	19	250	250	NS	19	NS	250	NS
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	8.3	38	38	NS	8.3	NS	38	NS
Hexamethylene Diisocyanate, 1,6-	3.1	13	13	NS	3.1	NS	13	NS
Hexamethylphosphoramide	25	330	330	NS	25	NS	330	NS
Hexane, N-	610	2,500	2,500	NS	610	NS	2,500	NS
Hexanedioic Acid	130,000	>1 kg/kg	>1 kg/kg	NS	130,000	NS	1,600,000	NS
Hexanone, 2-	200	1,300	1,300	NS	200	NS	1,300	NS
Hexazinone	2,100	27,000	27,000	NS	2,100	NS	27,000	NS
Hydrazine	0.03	0.14	0.14	NS	0.032	NS	0.14	NS
Hydrazine Sulfate	0.23	1.1	1.1	NS	0.23	NS	1.1	NS
Hydrogen Chloride	2.80E+07	1.20E+08	1.20E+08	NS	2.80E+07	NS	1.20E+08	NS
Hydrogen Fluoride	3,100	47,000	47,000	NS	3,100	NS	47,000	NS
Hydrogen Sulfide	2.80E+06	1.20E+07	1.20E+07	NS	2.80E+06	NS	1.20E+07	NS
Hydroquinone	9.0	38	38	NS	9.0	NS	38	NS
Imazalil	8.9	38	38	NS	8.9	NS	38	NS
Imazaquin	16,000	210,000	210,000	NS	16,000	NS	210,000	NS
Iodine	780	12,000	12,000	NS	780	NS	12,000	NS
Iprodione	2,500	33,000	33,000	NS	2,500	NS	33,000	NS
Isobutyl Alcohol	23,000	350,000	350,000	NS	23,000	NS	350,000	NS
Isophorone	570	2,400	2,400	NS	570	NS	2,400	NS
Isopropalin	1,200	18,000	18,000	NS	1,200	NS	18,000	NS
Isopropanol	5,600	24,000	24,000	NS	5,600	NS	24,000	NS
Isopropyl Methyl Phosphonic Acid	6,300	82,000	82,000	NS	6,300	NS	82,000	NS
Isoxaben	3,200	41,000	41,000	NS	3,200	NS	41,000	NS
JP-7	4.30E+08	1.80E+09	1.80E+09	NS	4.30E+08	NS	1.80E+09	NS
Kerb (Propyzamide)	4,700	62,000	62,000	NS	4,700	NS	62,000	NS
Lactofen	510	6,600	6,600	NS	510	NS	6,600	NS
Tetraethyl Lead	0.0078	0.12	0.12	13	0.0078	NS	0.12	NS
Linuron	490	6,300	6,300	NS	490	NS	6,300	NS
Lithium	160	2,300	2,300	NS	160	NS	2,300	NS
Londax (Bensulfuron-methyl)	13,000	160,000	160,000	NS	13,000	NS	160,000	NS
MCPA	32	410	410	NS	32	NS	410	NS
MCPB	280	3,600	3,600	NS	280	NS	3,600	NS
MCPP	63	820	820	NS	63	NS	820	NS
Malathion	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
Maleic Anhydride	6,300	80,000	80,000	NS	6,300	NS	80,000	NS
Maleic Hydrazide	32,000	410,000	410,000	NS	32,000	NS	410,000	NS
Malononitrile	6.3	82	82	NS	6.3	NS	82	NS
Mancozeb	1,900	25,000	25,000	NS	1,900	NS	25,000	NS
Maneb	320	4,100	4,100	NS	320	NS	4,100	NS
Mephosfolan	5.7	74	74	NS	5.7	NS	74	NS
Mepiquat Chloride	1,900	25,000	25,000	NS	1,900	NS	25,000	NS
Mercury Compounds								

**TABLE 5**  
**SUMMARY OF THRESHOLD CONCENTRATIONS FOR VOCs, SVOCs, PCBs, ORGANOCHLORINE PESTICIDES,**  
**AND OTHER CONSTITUENTS WITHOUT WATER QUALITY OBJECTIVES**  
**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED USE (mg/kg)	UNLINED CELL DISPOSAL LIMITS (mg/kg)	LINED CELL DISPOSAL LIMITS (mg/kg)	REFERENCE CONCENTRATIONS				
				TTLIC (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)
-Methyl Mercury	7.8	120	120	NS	7.8	6.3	120	NS
-Phenylmercuric Acetate	5.1	66	66	NS	5.1	NS	66	NS
Merphos	2.3	35	35	NS	2.3	NS	35	NS
Merphos Oxide	6.3	82	82	NS	6.3	NS	82	NS
Metalaxyl	3,800	49,000	49,000	NS	3,800	NS	49,000	NS
Methacrylonitrile	7.5	100	100	NS	7.5	NS	100	NS
Methamidophos	3.2	41	41	NS	3.2	NS	41	NS
Methanol	120,000	1,200,000	1,200,000	NS	120,000	NS	1,200,000	NS
Methidathion	95	1,200	1,200	NS	95	NS	1,200	NS
Methomyl	1,600	21,000	21,000	NS	1,600	NS	21,000	NS
Methoxy-5-nitroaniline, 2-	11	47	47	NS	11	NS	47	NS
Methoxyethanol Acetate, 2-	110	510	510	NS	110	NS	510	NS
Methoxyethanol, 2-	320	4,100	4,100	NS	320	NS	4,100	NS
Methyl Acetate	78,000	1,200,000	1,200,000	NS	78,000	NS	1,200,000	NS
Methyl Acrylate	150	610	610	NS	150	NS	610	NS
Methyl Ethyl Ketone (2-Butanone)	27,000	190,000	190,000	NS	27,000	5.1	190,000	5.1
Methyl Hydrazine	0.14	0.62	0.62	NS	0.14	NS	0.62	NS
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	33,000	140,000	140,000	NS	33,000	2.8	140,000	2.8
Methyl Isocyanate	4.6	19	19	NS	4.6	NS	19	NS
Methyl Methacrylate	4,400	19,000	19,000	NS	4,400	NS	19,000	NS
Methyl Parathion	16	210	210	NS	16	NS	210	NS
Methyl Phosphonic Acid	3800	49,000	49,000	NS	3,800	NS	49,000	NS
Methyl Styrene (Mixed Isomers)	320	2,600	2,600	NS	320	NS	2,600	NS
Methyl methanesulfonate	5.5	23	23	NS	5.5	NS	23	NS
Methyl-1,4-benzenediamine dihydrochloride, 2-	19	250	250	NS	19	NS	250	NS
Methyl-5-Nitroaniline, 2-	60	260	260	NS	60	NS	260	NS
Methyl-N-nitro-N-nitrosoguanidine, N-	0.065	0.28	0.28	NS	0.065	NS	0.28	NS
Methylaniline Hydrochloride, 2-	4	18	18	NS	4.2	NS	18	NS
Methylarsonic acid	630	8,200	8,200	NS	630	NS	8,200	NS
Methylbenzene,1,4-diamine monohydrochloride, 2-	13	160	160	NS	13	NS	160	NS
Methylbenzene-1,4-diamine sulfate, 2-	5.4	23	23	NS	5.4	NS	23	NS
Methylcholanthrene, 3-	0.0055	0.10	0.10	NS	0.0055	NS	0.10	NS
Methylene-bis(2-chloroaniline), 4,4'-	1.2	23	23	NS	1.2	NS	23	NS
Methylene-bis(N,N-dimethyl) Aniline, 4,4'-	12	50	50	NS	12	NS	50	NS
Methylenebisbenzenamine, 4,4'-	0.34	1.4	1.4	NS	0.34	NS	1.4	NS
Methylenediphenyl Diisocyanate	850,000	3,600,000	3,600,000	NS	850,000	NS	3,600,000	NS
Methylstyrene, Alpha-	5,500	82,000	82,000	NS	5,500	NS	82,000	NS
Metolachlor	9,500	120,000	120,000	NS	9,500	NS	120,000	NS
Metribuzin	1,600	21,000	21,000	NS	1,600	NS	21,000	NS
Mineral oils	230,000	3,500,000	3,500,000	NS	230,000	NS	3,500,000	NS
Mirex	0.036	0.17	0.17	21	0.036	NS	0.17	NS
Monomethylaniline	130	1,600	1,600	NS	130	NS	1,600	NS
N,N'-Diphenyl-1,4-benzenediamine	19	250	250	NS	19	NS	250	NS
Naled	160	2,300	2,300	NS	160	NS	2,300	NS
Naphtha, High Flash Aromatic (HFAN)	2,300	35,000	35,000	NS	2,300	NS	35,000	NS
Naphthylamine, 2-	0.30	1.3	1.3	NS	0.30	NS	1.3	NS
Napropamide	7,600	98,000	98,000	NS	7,600	NS	98,000	NS
Nickel Carbonyl	820	11,000	11,000	2,000	820	NS	11,000	NS
Nickel Oxide	840	12,000	12,000	2,000	840	NS	12,000	NS
Nickel Refinery Dust	820	11,000	11,000	2,000	820	NS	11,000	NS
Nickel Soluble Salts	1,500	22,000	22,000	2,000	1,500	NS	22,000	NS
Nickel Subsulfide	0.41	1.9	1.9	2,000	0.41	NS	1.9	NS
Nitroaniline, 2-	630	8,000	8,000	NS	630	NS	8,000	NS
Nitroaniline, 4-	27	110	110	NS	27	NS	110	NS
Nitrobenzene	5.1	22	22	NS	5.1	NS	22	NS
Nitrocellulose	1.90E+08	2.50E+09	2.50E+09	NS	1.90E+08	NS	2.50E+09	NS
Nitrofurantoin	4,400	57,000	57,000	NS	4,400	NS	57,000	NS



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**AND OTHER CONSTITUENTS WITHOUT WATER QUALITY OBJECTIVES**  
**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED USE (mg/kg)	UNLINED CELL DISPOSAL LIMITS (mg/kg)	LINED CELL DISPOSAL LIMITS (mg/kg)	REFERENCE CONCENTRATIONS				
				TCLC (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)
Nitrofurazone	0.42	1.8	1.8	NS	0.42	NS	1.8	NS
Nitroglycerin	6.3	82	82	NS	6.3	NS	82	NS
Nitroguanidine	6,300	82,000	82,000	NS	6,300	NS	82,000	NS
Nitromethane	5.4	24	24	NS	5.4	NS	24	NS
Nitropropane, 2-	0.064	0.28	0.28	NS	0.064	NS	0.280	NS
Nitroso-N-ethylurea, N-	0.0045	0.085	0.085	NS	0.0045	NS	0.085	NS
Nitroso-N-methylurea, N-	0.0010	0.019	0.019	NS	0.0010	NS	0.019	NS
Nitroso-di-N-butylamine, N-	0.099	0.46	0.46	NS	0.099	NS	0.46	NS
Nitroso-di-N-propylamine, N-	0.078	0.33	0.33	NS	0.078	NS	0.33	NS
Nitrosodiethanolamine, N-	0.19	0.82	0.82	NS	0.19	NS	0.82	NS
Nitrosodiethylamine, N-	0.00081	0.015	0.015	NS	0.00081	NS	0.015	NS
Nitrosodimethylamine, N-	0.0020	0.034	0.034	NS	0.0020	NS	0.034	NS
Nitrosodiphenylamine, N-	110	470	470	NS	110	NS	470	NS
Nitrosomethylethylamine, N-	0.020	0.091	0.091	NS	0.020	NS	0.091	NS
Nitrosomorpholine [N-]	0.081	0.34	0.34	NS	0.081	NS	0.34	NS
Nitrosopiperidine [N-]	0.058	0.24	0.24	NS	0.058	NS	0.24	NS
Nitrosopyrrolidine, N-	0.26	1.1	1.1	NS	0.26	NS	1.1	NS
Nitrotoluene, m-	6.3	82	82	NS	6.3	NS	82	NS
Nitrotoluene, o-	3.2	15	15	NS	3.2	NS	15	NS
Nitrotoluene, p-	34	140	140	NS	34	NS	140	NS
Nonane, n-	11	72	72	NS	11	NS	72	NS
Norflurazon	950	12,000	12,000	NS	950	NS	12,000	NS
Nustar (Flusilazole)	130	1,600	1,600	NS	130	NS	1,600	NS
Octabromodiphenyl Ether	190	2,500	2,500	NS	190	NS	2,500	NS
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	3,900	57,000	57,000	NS	3,900	NS	57,000	NS
Octamethylpyrophosphoramide	130	1,600	1,600	NS	130	NS	1,600	NS
Oryzalin	70	290	290	NS	70	NS	290	NS
Oxadiazon	320	4,100	4,100	NS	320	NS	4,100	NS
Paclobutrazol	820	11,000	11,000	NS	820	NS	11,000	NS
Paraquat Dichloride	280	3,700	3,700	NS	280	NS	3,700	NS
Parathion	380	4,900	4,900	NS	380	NS	4,900	NS
Pebulate	3,900	58,000	58,000	NS	3,900	NS	58,000	NS
Pendimethalin	19,000	250,000	250,000	NS	19,000	NS	250,000	NS
Pentabromodiphenyl Ether	160	2,300	2,300	NS	160	NS	2,300	NS
Pentabromodiphenyl ether, 2,2',4,4',5- (BDE-99)	6.3	82	82	NS	6.3	NS	82	NS
Pentachlorobenzene	63	930	930	NS	63	NS	930	NS
Pentachloroethane	7.7	36	36	NS	7.7	NS	36	NS
Pentachloronitrobenzene	2.7	13	13	NS	2.7	NS	13	NS
Pentaerythritol tetranitrate (PETN)	130	570	570	NS	130	NS	570	NS
Pentane, n-	810	3,400	3,400	NS	810	NS	3,400	NS
<b>Perchlorates</b>	-	-	-	-	-	-	-	-
-Ammonium Perchlorate	55	820	820	NS	55	NS	820	NS
-Lithium Perchlorate	55	820	820	NS	55	NS	820	NS
-Potassium Perchlorate	55	820	820	NS	55	NS	820	NS
-Sodium Perchlorate	55	820	820	NS	55	NS	820	NS
Permethrin	3,200	41,000	41,000	NS	3,200	NS	41,000	NS
Phenacetin	250	1,000	1,000	NS	250	NS	1,000	NS
Phenmedipham	16,000	210,000	210,000	NS	15,000	NS	200,000	NS
Phenol	19,000	250,000	250,000	NS	19,000	0.076	250,000	0.076
Phenothiazine	32	410	410	NS	32	NS	410	NS
Phenylenediamine, m-	380	4,900	4,900	NS	380	NS	4,900	NS
Phenylenediamine, o-	4.5	19	19	NS	4.5	NS	19	NS
Phenylenediamine, p-	63	820	820	NS	63	NS	820	NS
Phenylphenol, 2-	280	1,200	1,200	NS	280	NS	1,200	NS
Phorate	13	160	160	NS	13	NS	160	NS
Phosgene	0.31	1.3	1.3	NS	0.31	NS	1.3	NS
Phosmet	1,300	16,000	16,000	NS	1,300	NS	16,000	NS

**TABLE 5**  
**SUMMARY OF THRESHOLD CONCENTRATIONS FOR VOCs, SVOCs, PCBs, ORGANOCHLORINE PESTICIDES,**  
**AND OTHER CONSTITUENTS WITHOUT WATER QUALITY OBJECTIVES**  
**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED USE (mg/kg)	UNLINED CELL DISPOSAL LIMITS (mg/kg)	LINED CELL DISPOSAL LIMITS (mg/kg)	REFERENCE CONCENTRATIONS				
				TTLIC (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)
<b>Phosphates, Inorganic</b>								
-Aluminum metaphosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Ammonium polyphosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Calcium pyrophosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Diammonium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Dicalcium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Dimagnesium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Dipotassium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Disodium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Monoaluminum phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Monoammonium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Monocalcium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Monomagnesium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Monopotassium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Monosodium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Polyphosphoric acid	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Potassium triphosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Sodium acid pyrophosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Sodium aluminum phosphate (acidic)	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Sodium aluminum phosphate (anhydrous)	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Sodium aluminum phosphate (tetrahydrate)	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Sodium hexametaphosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Sodium polyphosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Sodium trimetaphosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Sodium triphosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Tetrapotassium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Tetrasodium pyrophosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Trialuminum sodium tetra decahydrogenoctaorthophosphate (dihydrate)	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Tricalcium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Trimagnesium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Tripotassium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
-Trisodium phosphate	3.80E+06	5.70E+07	5.70E+07	NS	3.80E+06	NS	5.70E+07	NS
Phosphine	23	350	350	NS	23	NS	350	NS
Phosphoric Acid	3.00E+06	2.90E+07	2.90E+07	NS	3.00E+06	NS	2.90E+07	NS
Phosphorus, White	1.6	23	23	NS	1.6	NS	23	NS
<b>Phthalates</b>								
-Butylphthalyl Butylglycolate	63,000	820,000	820,000	NS	63,000	NS	820,000	NS
-Dibutyl Phthalate	6,300	82,000	82,000	NS	6,300	NS	82,000	NS
-Diethyl Phthalate	51,000	660,000	660,000	NS	51,000	NS	660,000	NS
-Dimethylterephthalate	7,800	120,000	120,000	NS	7,800	NS	120,000	NS
-Octyl Phthalate, di-N-	630	8,200	8,200	NS	630	NS	8,200	NS
-Phthalic Acid, P-	63,000	820,000	820,000	NS	63,000	NS	820,000	NS
-Phthalic Anhydride	130,000	>1 kg/kg	>1 kg/kg	NS	130,000	NS	1,600,000	NS
Picramic Acid (2-Amino-4,6-dinitrophenol)	6.3	82	82	NS	6.3	NS	82	NS
Pirimiphos, Methyl	4.4	57	57	NS	4.4	NS	57	NS
Polybrominated Biphenyls	0.018	0.077	0.077	NS	0.018	NS	0.077	NS
<b>Polychlorinated Biphenyls (PCBs)</b>								
-Aroclor 1016	4.1	27	27	50	4.1	0.25	27	6.3
-Aroclor 1221	0.20	0.83	0.83	50	0.20	0.25	0.83	6.3
-Aroclor 1232	0.17	0.72	0.72	50	0.17	0.25	0.72	6.3
-Aroclor 1242	0.23	0.95	0.95	50	0.23	0.25	0.95	6.3
-Aroclor 1248	0.23	0.95	0.95	50	0.23	0.25	0.95	6.3
-Aroclor 1254	0.24	0.97	0.97	50	0.24	0.25	0.97	6.3
-Aroclor 1260	0.24	0.99	0.99	50	0.24	0.25	0.99	6.3
-Aroclor 5460	35	50	50	50	35	0.25	440	6.3
-Heptachlorobiphenyl, 2,3,3',4,4',5,5'-(PCB 189)	0.13	0.52	0.52	50	0.13	0.25	0.52	6.3

**TABLE 5**  
**SUMMARY OF THRESHOLD CONCENTRATIONS FOR VOCs, SVOCs, PCBs, ORGANOCHLORINE PESTICIDES,**  
**AND OTHER CONSTITUENTS WITHOUT WATER QUALITY OBJECTIVES**  
**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED USE (mg/kg)	UNLINED CELL DISPOSAL LIMITS (mg/kg)	LINED CELL DISPOSAL LIMITS (mg/kg)	REFERENCE CONCENTRATIONS				
				TCLC (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)
-Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	0.12	0.52	0.52	50	0.12	0.25	0.52	6.3
-Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	0.12	0.53	0.53	50	0.12	0.25	0.53	6.3
-Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)	0.12	0.53	0.53	50	0.12	0.25	0.53	6.3
-Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	0.00012	0.00052	0.00052	50	0.00012	0.25	0.00052	6.3
-Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)	0.12	0.50	0.50	50	0.12	0.25	0.50	6.3
-Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)	0.12	0.50	0.50	50	0.12	0.25	0.50	6.3
-Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)	0.12	0.50	0.50	50	0.12	0.25	0.50	6.3
-Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)	0.12	0.51	0.51	50	0.12	0.25	0.51	6.3
-Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126) -	0.000036	0.00015	0.00015	50	0.000036	0.25	0.00015	6.3
-Polychlorinated Biphenyls (high risk)	0.23	0.94	0.94	50	0.23	0.25	0.94	6.3
-Tetrachlorobiphenyl, 3,3',4,4'- (PCB 77)	0.038	0.16	0.16	50	0.038	0.25	0.16	6.3
-Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	0.012	0.049	0.049	50	0.012	0.25	0.049	6.3
Polymeric Methylene Diphenyl Diisocyanate (PMDI)	850,000	3,600,000	3,600,000	NS	850,000	NS	3,600,000	NS
<b>Polynuclear Aromatic Hydrocarbons (PAHs)</b>								
-Acenaphthene	3,600	45,000	45,000	NS	3,600	16	45,000	16
-Anthracene	18,000	230,000	230,000	NS	18,000	2.8	230,000	2.8
-Benz[a]anthracene	1.1	21	21	NS	1.1	0.16	21	12
-Benzo[j]fluoranthene	0.42	1.8	1.8	NS	0.42	NS	1.8	NS
-Benzo[b]fluoranthene	1.1	21	21	NS	1.1	0.16	21	46
-Benzo[k]fluoranthene	11	210	210	NS	11	1.6	210	2.6
-Chloronaphthalene, Beta-	4,800	60,000	60,000	NS	4,800	NS	60,000	NS
-Chrysene	110	2,100	2,100	NS	110	3.8	2,100	3.8
-Dibenz[a,h]anthracene	0.11	2.1	2.1	NS	0.11	0.016	2.1	9.9
-Dibenzo[a,e]pyrene	0.042	0.18	0.18	NS	0.042	NS	0.18	NS
-Dimethylbenz[a]anthracene, 7,12-	0.00046	0.0084	0.0084	NS	0.00046	NS	0.0084	NS
-Fluoranthene	2,400	30,000	30,000	NS	2,400	60	30,000	60
-Fluorene	2,400	30,000	30,000	NS	2,400	8.9	30,000	8.9
-Indeno[1,2,3-cd]pyrene	1.1	21	21	NS	1.1	0.16	210	9.1
-Methylnaphthalene, 1-	18	73	73	NS	18	NS	73	NS
-Methylnaphthalene, 2-	240	3,000	3,000	NS	240	0.25	3,000	0.25
-Naphthalene	3.8	17	17	NS	3.8	0.033	17	0.033
-Nitropyrene, 4-	0.42	1.8	1.8	NS	0.42	NS	1.8	NS
-Pyrene	1,800	23,000	23,000	NS	1,800	85	23,000	85
Prochloraz	3.6	15	15	NS	3.6	NS	15	NS
Profluralin	470	7,000	7,000	NS	470	NS	7,000	NS
Prometon	950	12,000	12,000	NS	950	NS	12,000	NS
Prometryn	2,500	33,000	33,000	NS	2,500	NS	33,000	NS
Propachlor	820	11,000	11,000	NS	820	NS	11,000	NS
Propanil	320	4,100	4,100	NS	320	NS	4,100	NS
Propargite	2.8	12	12	NS	2.8	NS	12	NS
Propargyl Alcohol	160	2,300	2,300	NS	160	NS	2,300	NS
Propazine	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
Propham	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
Propiconazole	6300	82,000	82,000	NS	6,300	NS	82,000	NS
Propionaldehyde	75	310	310	NS	75	NS	310	NS
Propyl benzene	3,800	24,000	24,000	NS	3,800	NS	24,000	NS
Propylene	2,200	9,300	9,300	NS	2,200	NS	9,300	NS
Propylene Glycol	1,300,000	16,000,000	16,000,000	NS	1,300,000	NS	16,000,000	NS
Propylene Glycol Dinitrate	390,000	1,600,000	1,600,000	NS	390,000	NS	1,600,000	NS
Propylene Glycol Monomethyl Ether	41,000	370,000	370,000	NS	41,000	NS	370,000	NS
Propylene Oxide	2.1	9.7	9.7	NS	2.1	NS	9.7	NS
Pursuit (Pendimethalin)	19,000	250,000	250,000	NS	19,000	NS	250,000	NS
Pydrin (Fenvalerate)	1,600	21,000	21,000	NS	1,600	NS	21,000	NS
Pyridine	78	1,200	1,200	NS	78	NS	1,200	NS
Quinalphos	32	410	410	NS	32	NS	410	NS
Quinoline	0.18	0.77	0.77	NS	0.18	NS	0.77	NS
Resmethrin	1,900	25,000	25,000	NS	1,900	NS	25,000	NS



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**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED USE (mg/kg)	UNLINED CELL DISPOSAL LIMITS (mg/kg)	LINED CELL DISPOSAL LIMITS (mg/kg)	REFERENCE CONCENTRATIONS				
				TTIC (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)
Ronnel	3,900	58,000	58,000	NS	3,900	NS	58,000	NS
Rotenone	250	3,300	3,300	NS	250	NS	3,300	NS
Safrole	0.55	10	10	NS	0.55	NS	10	NS
Savey (Hexythiazox)	1,600	21,000	21,000	NS	1,600	NS	21,000	NS
Selenious Acid	100	100	100	100	390	NS	5,800	NS
Selenium Sulfide	100	100	100	100	390	NS	5,800	NS
Sethoxydim	8,800	110,000	110,000	NS	8,800	NS	110,000	NS
Silica (crystalline, respirable)	4.30E+06	1.80E+07	1.80E+07	NS	4.30E+06	NS	1.80E+07	NS
Sodium Acifluorfen	820	11,000	11,000	NS	820	NS	11,000	NS
Sodium Azide	310	4,700	4,700	NS	310	NS	4,700	NS
Sodium Diethyldithiocarbamate	2.0	8.5	8.5	NS	2.0	NS	8.5	NS
Sodium Fluoride	3,900	18,000	18,000	18,000	3,900	NS	58,000	NS
Sodium Fluoroacetate	1.3	16	16	18,000	1.3	NS	16	NS
Sodium Metavanadate	78	1,200	1,200	NS	78	NS	1,200	NS
Stirofos (Tetrachlorovinphos)	23	96	96	NS	23	NS	96	NS
Strontium, Stable	47,000	700,000	700,000	NS	47,000	NS	700,000	NS
Strychnine	19	250	250	NS	19	NS	250	NS
Sulfolane	63	820	820	NS	63	NS	820	NS
Sulfonylbis(4-chlorobenzene), 1,1'-	51	660	660	NS	51	NS	660	NS
Sulfuric Acid	1,400,000	6,000,000	6,000,000	NS	1,400,000	NS	6,000,000	NS
Systhane (Myclobutanil)	1,600	21,000	21,000	NS	1,600	NS	21,000	NS
TCMTB	1,900	25,000	25,000	NS	1,900	NS	25,000	NS
Tebuthiuron	4,400	57,000	57,000	NS	4,400	NS	57,000	NS
Temephos	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
Terbacil	820	11,000	11,000	NS	820	NS	11,000	NS
Terbufos	2.0	2.9	2.9	NS	2.0	NS	2.9	NS
Terbutryn	63	820	820	NS	63	NS	820	NS
Tetrabromodiphenyl ether, 2,2',4,4'- (BDE-47)	6.3	82	82	NS	6.3	NS	82	NS
Tetrachlorobenzene, 1,2,4,5-	23	350	350	NS	23	NS	350	NS
Tetrachloroethane, 1,1,1,2-	2.0	8.8	8.8	NS	2.0	0.01	8.8	0.01
Tetrachlorophenol, 2,3,4,6-	1,900	25,000	25,000	NS	1,900	NS	25,000	NS
Tetrachlorotoluene, p- alpha, alpha, alpha-	0.043	0.20	0.20	NS	0.043	NS	0.20	NS
Tetraethyl Dithiopyrophosphate	32	410	410	NS	32	NS	410	NS
Tetrafluoroethane, 1,1,1,2-	100,000	430,000	430,000	NS	100,000	NS	430,000	NS
Tetryl (Trinitrophenylmethyl nitramine)	160	2,300	2,300	NS	160	NS	2,300	NS
Thallium (I) Nitrate	0.78	12	12	700	0.78	NS	12.0	NS
Thallium Acetate	0.78	12	12	700	0.78	NS	12.0	NS
Thallium Carbonate	1.6	23	23	700	1.6	NS	23	NS
Thallium Chloride	0.78	12	12	700	0.78	NS	12.0	NS
Thallium Sulfate	1.6	23	23	700	1.6	NS	23	NS
Thiodiglycol	5,400	79,000	79,000	NS	5,400	NS	79,000	NS
Thiofanox	19	250	250	NS	19	NS	250	NS
Thiophanate, Methyl	47	200	200	NS	47	NS	200	NS
Thiram	950	12,000	12,000	NS	950	NS	12,000	NS
Tin	47,000	700,000	700,000	NS	47,000	NS	700,000	NS
Titanium Tetrachloride	140,000	600,000	600,000	NS	140,000	NS	600,000	NS
Toluene-2,5-diamine	3.0	13	13	NS	3.0	NS	13	NS
Toluidine, p-	18	77	77	NS	18	2.9	77	2.9
Tralomeethrin	470	6,200	6,200	NS	470	NS	6,200	NS
Tri-n-butyltin	23	350	350	NS	23	NS	350	NS
Triacetin	5.10E+06	6.60E+07	6.60E+07	NS	5.10E+06	NS	6.60E+07	NS
Triallate	10	46	46	NS	9.7	NS	46	NS
Triasulfuron	630	8,200	8,200	NS	630	NS	8,200	NS
Tribromobenzene, 1,2,4-	390	5,800	5,800	NS	390	NS	5,800	NS
Tributyl Phosphate	60	260	260	NS	60	NS	260	NS
Tributyltin Compounds	19	250	250	NS	19	NS	250	NS
Tributyltin Oxide	19	250	250	NS	19	NS	250	NS

**TABLE 5**  
**SUMMARY OF THRESHOLD CONCENTRATIONS FOR VOCs, SVOCs, PCBs, ORGANOCHLORINE PESTICIDES,**  
**AND OTHER CONSTITUENTS WITHOUT WATER QUALITY OBJECTIVES**  
**BARSTOW SANITARY LANDFILL**

ANALYTE	UNRESTRICTED USE (mg/kg)	UNLINED CELL DISPOSAL LIMITS (mg/kg)	LINED CELL DISPOSAL LIMITS (mg/kg)	REFERENCE CONCENTRATIONS				
				TTLc (mg/kg)	RESIDENTIAL RSL (mg/kg)	ESL - SOIL TIER 1 (mg/kg)	INDUSTRIAL RSL (mg/kg)	ESL - LEACHING TO GROUNDWATER (mg/kg)
Trichloroaniline HCl, 2,4,6-	19	79	79	NS	19	NS	79	NS
Trichloroaniline, 2,4,6-	1.9	25	25	NS	1.9	NS	25	NS
Trichlorobenzene, 1,2,3-	63	930	930	NS	63	NS	930	NS
Trichlorophenol, 2,4,5-	6,300	82,000	82,000	NS	6,300	0.18	82,000	0.18
Trichlorophenol, 2,4,6-	49	210	210	NS	49	0.21	210	0.21
Trichlorophenoxyacetic Acid, 2,4,5-	630	8,200	8,200	NS	630	NS	8,200	NS
Trichloropropane, 1,1,2-	390	5,800	5,800	NS	390	NS	5,800	NS
Trichloropropane, 1,2,3-	0.0051	0.11	0.11	NS	0.0051	NS	0.11	NS
Trichloropropene, 1,2,3-	0.73	3.1	3.1	NS	0.73	NS	3.1	NS
Tricresyl Phosphate (TCP)	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
Tridiphenyl	190	2,500	2,500	NS	190	NS	2,500	NS
Triethylamine	120	480	480	NS	120	NS	480	NS
Trifluralin	90	420	420	NS	90	NS	420	NS
Trimethyl Phosphate	27	110	110	NS	27	NS	110	NS
Trimethylbenzene, 1,2,3-	340	2,000	2,000	NS	340	NS	2,000	NS
Trimethylbenzene, 1,2,4-	300	1,800	1,800	NS	300	NS	1,800	NS
Trimethylbenzene, 1,3,5-	270	1,500	1,500	NS	270	NS	1,500	NS
Trinitrobenzene, 1,3,5-	2,200	32,000	32,000	NS	2,200	NS	32,000	NS
Trinitrotoluene, 2,4,6-	21	96	96	NS	21	NS	96	NS
Triphenylphosphine Oxide	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
Tris(1,3-Dichloro-2-propyl) Phosphate	1,300	16,000	16,000	NS	1,300	NS	16,000	NS
Tris(1-chloro-2-propyl)phosphate	630	8,200	8,200	NS	630	NS	8,200	NS
Tris(2-chloroethyl)phosphate	27	110	110	NS	27	NS	110	NS
Tris(2-ethylhexyl)phosphate	170	720	720	NS	170	NS	720	NS
Urethane	0.12	2.3	2.3	NS	0.12	NS	2.3	NS
Vanadium Pentoxide	460	2,000	2,000	2,400	460	NS	2,000	NS
Vernolate	78	1,200	1,200	NS	78	NS	1,200	NS
Vinclozolin	76	980	980	NS	76	NS	980	NS
Vinyl Acetate	910	3,800	3,800	NS	910	NS	3,800	NS
Vinyl Bromide	0.12	0.52	0.52	NS	0.12	NS	0.52	NS
Warfarin	19	250	250	NS	19	NS	250	NS
Xylene, p-	560	2,400	2,400	NS	560	2.3	2,400	2.3
Xylene, m-	550	2,400	2,400	NS	550	2.3	2,400	2.3
Xylene, o-	650	2,800	2,800	NS	650	2.3	2,800	2.3
Zinc Phosphide	23	350	350	5,000	23	NS	350	NS
Zineb	3,200	41,000	41,000	NS	3,200	NS	41,000	NS
Zirconium	6.3	93	93	NS	6.3	NS	93	NS

**NOTES:**

**1. UNRESTRICTED ONSITE USE THRESHOLDS**

Threshold concentrations determined utilizing the values in order of priority: 1) RSL for residential sites (USEPA); 2) In absence of RSL, an ESL for "Soil Tier 1" (SFBRWQCB). Material shall not exceed the TTLc (CCR Title 22) threshold regardless of RSL or ESL threshold values.

**2. UNLINED CELL DISPOSAL THRESHOLDS:**

Threshold concentrations determined utilizing the values in order of priority: 1) RSL for Industrial sites (USEPA); 2) In absence of RSL, an ESL for "Leaching to Groundwater" (SFBRWQCB). Material shall not exceed the TTLc (CCR Title 22) threshold regardless of RSL or ESL threshold values.

**3. LINED CELL DISPOSAL THRESHOLDS:**

Threshold concentrations are determined by selecting the highest value of 1) Industrial RSL (USEPA), 2) ESL for "Soil Tier 1" (SFBRWQCB); 3) established Background concentrations, and 4) WQoDAF. Material shall not exceed the TTLc (CCR Title 22) threshold regardless of RSL or ESL threshold values.

**4. REFERENCES:**

- TTLc - California Code of Regulations, Title 22, Chapter 11, Article 2.
- EPA RSLs - U.S. EPA Regional Screening Levels (Formerly PRGs), November 2019, Summary Table (TR=1E-06 and THQ=1.0), <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>
- ESLs - San Francisco Bay Regional Water Quality Control Board [http://docs.ppsmixeduse.com/ppp/DEIR/References/2016\\_0222\\_sfrwqcb\\_environmentalscreeninglevels.pdf](http://docs.ppsmixeduse.com/ppp/DEIR/References/2016_0222_sfrwqcb_environmentalscreeninglevels.pdf)

**5. ABBREVIATIONS:**

TTLc - Total Threshold Limit Concentration  
RSL - Regional Screening Level (USEPA)  
ESL - Environmental Screening Level (San Francisco Bay RWQCB)  
NS - Not Specified

**APPENDIX A**

**BACKGROUND METALS CONCENTRATION REFERENCE**

(Available from the County of San Bernardino Solid Waste Management Division upon request)

## **APPENDIX B**

### **DILUTION ATTENUATION FACTOR CALCULATIONS**

(Available from the County of San Bernardino Solid Waste Management Division upon request)

**APPENDIX C**  
**SPECIAL WASTE FORM**



## SPECIAL WASTE FORM

Please fill out entire form, attach analytical results (with chain of custody), location map of soil sample locations, and photos of soil to Joe

### I. GENERATOR

Name: \_\_\_\_\_ Company: \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_  
State/Zip: \_\_\_\_\_ County: \_\_\_\_\_  
Phone: \_\_\_\_\_ Email: \_\_\_\_\_

### II. TRANSPORTER (if not Generator)

Name / Company: \_\_\_\_\_ License #: \_\_\_\_\_  
Address: \_\_\_\_\_ City: \_\_\_\_\_  
State/Zip: \_\_\_\_\_ County: \_\_\_\_\_  
Phone: \_\_\_\_\_ Email: \_\_\_\_\_

### III. WASTE LOCATION (prior to transport):

Name / Company: \_\_\_\_\_ Address: \_\_\_\_\_  
City: \_\_\_\_\_ State/Zip: \_\_\_\_\_

### IV. WASTE QUANTITY AND FREQUENCY

Frequency of Disposal Event: ☐ One Time ☐ Daily ☐ Weekly ☐ Monthly

Anticipated Truckloads per Event: \_\_\_\_\_ Anticipated Volume per Truckload: \_\_\_\_\_

### V. WASTE CHARACTERISTICS

Waste Type: ☐ Industrial ☐ Residential ☐ Commercial ☐ Other \_\_\_\_\_

Physical State: ☐ Solid ☐ Semi-Solid ☐ Powder ☐ Other \_\_\_\_\_

Containerized: ☐ Bulk ☐ Drum ☐ Bagged ☐ Other \_\_\_\_\_

Color: \_\_\_\_\_ Odor: \_\_\_\_\_ Moisture, %: \_\_\_\_\_ Solid, %: \_\_\_\_\_

Material (Sand, silt, clay, etc): \_\_\_\_\_

## SPECIAL WASTE FORM

This waste ☐ does / ☐ does not exhibit any of the characteristics of ignitability, corrosivity, reactivity or toxicity as defined in Article 3 of Chapter 11 of Division 4.5, of Title 22 of the California Code of Regulations (22CCR).

This waste ☐ is / ☐ is not a RCRA hazardous waste as Defined in Article 4 of Chapter 11 of Title 22 CCR.

This waste ☐ is / ☐ is not a regular Toxic Material as define by Federal or State Regulations.

This waste ☐ is / ☐ is not a regulated Medical or Infectious Waste as defined by Federal or State regulations,

This waste ☐ is / ☐ is not a waste generated at a Federal Superfund Clean-Up Site.

Special Handling Instructions: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### **VI. SAMPLE COLLECTION AND ANALYSIS (attach completed Chain of Custody form)**

Sample Location (include description and attached photos and location map): \_\_\_\_\_  
\_\_\_\_\_

Number of Samples Collected: \_\_\_\_\_

Sample Date(s) and Time(s): \_\_\_\_\_

Analytical Laboratory Name / City: \_\_\_\_\_

Analytes: \_\_\_\_\_  
\_\_\_\_\_

### **VII. GENERATOR CERTIFICATION**

I hereby certify that to the best of my knowledge, the information contained herein is complete, true, and an accurate description of the waste in question for disposal and that all known or suspected hazards have been disclosed. All analytical results submitted are truthful, complete, and representative of the waste. Neither myself nor any employee of my company will deliver waste which is classified as toxic, hazardous, or infectious or any other waste that this facility is prohibited from accepting by law. I shall immediately give written notice of any change of condition pertaining to the waste described herein. Our company agrees to fully indemnify The County of San Bernardino Solid Waste against any damages resulting from this certification being inaccurate or untrue. I certify that the company has not altered the form or content of this waste characterization profile as provided. The undersigned warrants that he/she is authorized to sign this document on behalf of the generator.

\_\_\_\_\_  
Authorized Representative Name and Title and Company (Printed)

\_\_\_\_\_  
Authorized Representative Signature

\_\_\_\_\_  
Date

**APPENDIX D**

**WASTE DISCHARGE REQUIREMENT**

(Available from the County of San Bernardino Solid Waste Management Division upon request)



**EXHIBIT B**

**LIST OF FORMER COUNTY OFFICIALS**

**INSTRUCTIONS:** List the full name of the former COUNTY Administrative Official, the title/description of the Official's last position with the COUNTY, the date the Official terminated COUNTY employment, the Official's current employment and/or representation.

**OFFICIAL'S NAME**

**REQUIRED INFORMATION**