



Bureau of Sustainable Materials Management
Solid Waste Disposal Site Fact Sheet
TBD 2024

Tonopah Class II Landfill
Tonopah, Nevada

Permit ID: SW103REV02

State of Nevada
Department of Conservation and Natural Resources
Division of Environmental Protection
Bureau of Sustainable Materials Management

Fact Sheet Table of Contents

I. Introduction 1

1. Description of Proposed Permit Modification 1

2. Location and Land Use Information 1

3. The Divisions Proposed Action 1

4. Facility Summary 1

5. Document Availability 5

6. Procedure for Public Review 5

7. Public Hearing 5

8. Comment Period 5

DRAFT

I. Introduction

The Nevada Department of Environmental – Bureau of Sustainable Materials Management (Division) provides the following Fact Sheet in conjunction with the Permit for the 2nd Tonopah Landfill Permit Modification – pursuant to the Solid Waste Disposal Regulations of the Nevada Administrative Code **NAC 444.641.3(b)**

Permittee Name: Nye County

Facility Name: Tonopah Landfill

Permit Number: SW103REV02

1. Description of Proposed Permit Modification

1.1 Vertical Expansion

The proposed modification will allow the Tonopah Landfill to expand vertically the heights of cells within Phase I (active) by 10 feet. This will extend the expected life of Phase I by approximately 38 years with an expected theoretical closure date of 2060. The Phase II (inactive) disposal area is not yet constructed. The Phase II expansion will require a modification to the existing permit. Phase II would have an expected life of approximately 40 years.

1.2 Installation of Weighing Scales

The proposed modification also includes the installation of weighing scales at the entrance of the landfill to accurately measure the intake of waste being deposited in the landfill. This allows for accurate tracking and recording of the waste being accepted at the landfill. See Section 4.17 “Scales and Weighing” of the Fact Sheet.

2. Location and Land Use Information

The landfill is located in Ralston Valley approximately 6 miles east of Tonopah, Nevada and is accessible from U.S. Highway 6.

The 80-acre area within which the facility will be located is within the confines of the Permittee’s property in Nye County, Nevada. The subject property for the Phase I and II areas is a parcel 80 acres in size located in the northern portion of Section 4, Township 2 North, Range 43 East.

3. The Divisions Proposed Action

The Nevada Division of Environmental Protection - Bureau of Sustainable Materials Management (Division) is proposing to approve and issue the modified Permit.

4. Facility Summary

4.1 Introduction

The Tonopah Landfill is a Class II Municipal Solid Waste (MSW) site owned and operated by Nye County. The landfill serves as a disposal site for the Tonopah municipality, where refuse is delivered to the site by waste transport or private vehicles.

4.2 General Information

The Permit authorizes the construction and operation of a Class II disposal site, consisting of a MSW landfill unit, contiguous land, structures, and other appurtenances and improvements for the disposal of MSW and C&D as approved by the Nevada Division of Environmental Protection - Bureau of Sustainable Materials Management (Division). The Class II MSW facility accepts waste predominantly from the local community and at the Permittee’s discretion limited adjacent areas.

The facility will be constructed in phases, and when completed, will cover approximately 80 acres. Only the permitted Phase I portion of the landfill is actively accepting waste, Phase II (inactive) is not yet constructed or permitted and may not start operations until a Permit modification is submitted to the Division for review and approval.

The Phase I disposal area(s) are constructed without a liner or leachate collection system and no groundwater monitoring is conducted. The Permittee was granted a waiver by the Division in the initial Permit Application for all of the aforementioned reporting requirements for Phase I disposal area(s) – see Section 4.16 of the Fact Sheet. However, the facility is required to conduct methane monitoring. Upon reaching capacity, a final cover will be constructed, and the Permittee will be responsible for 30 years of post-closure care.

4.3 Geologic Characteristics

The landfill site is located primarily on alluvial material on the east side of the San Antonio Mountains at the southwestern end of Ralston Valley. The depth of the alluvium increases toward the east and varies from zero to more than 100 feet in thickness. The alluvium consists of very coarse, poorly rounded gravels in a sandy matrix. One or more Tertiary volcanic rock units are inferred to underly the alluvium. Volcanic bedrock crops out in a corner of the Phase I. These exposures consist of crystal lithic tuff and rhyolite. A glassy rhyolite dike was also observed next to an elongated trench scar. All of these bedrock units appear to terminate abruptly at the alluvial contact, suggesting at least the potential for a fault at or near the bedrock/alluvium contact.

According to an unpublished soil survey of Nye County performed by the Natural Resources Conservation Service (NRCS), soil at the Tonopah Landfill is within the Advockay-Blacktop-Itme Association (Map Unit 2140). The soils are composed of gravelly coarse to very gravelly fine sandy loam. The soil is derived from volcanic residuum and colluvium. The soil's permeability is moderately slow, hazard by erosion is slight, and hazard by wind erosion is moderate.

4.4 Climate

Based on data obtained from the Tonopah Station and Tonopah Airport Station the mean annual precipitation is approximately 5.01 inches at Tonopah Station from 1928 to 1954 and 5.29 inches at Tonopah Airport Station from 1954 to 1994.

The average annual snowfall is 13.77 inches at the Tonopah Station from 1928 to 1954 and 13.27 inches at the Tonopah Airport Station from 1954 to 1994.

Monthly mean temperatures range from a high of 68 degrees Fahrenheit (°F) in July to a low of 32°F in January. Monthly mean minimum temperatures range from 18°F in January to 61°F in July. Monthly mean maximum temperatures range from 38°F in January to 91°F in July. The average annual mean temperature is 52.0°F.

4.5 Topography

The area considered for the Tonopah Landfill is located on the eastern flank of the San Antonio Mountains, in the southern Ralston Valley. The topography of the area utilized for landfill disposal exhibits moderate relief while the hill areas to the west are relatively steep. The site is on a northeasterly facing slope with site elevations ranging from 5,670 to 5,800 feet above mean sea level (AMSL). Slopes at the site are approximately 2 percent to 10 percent with the site generally sloping to the east.

4.6 Design

Phase I of the landfill will ultimately cover approximately 19.9 acres, the permitted disposal area for waste within that is 15.3 acres. The vertical expansion will occur over 14.1 acres of the existing 15.3 acres footprint of Phase I. Final grading of the Phase I landfill site will have perimeter slopes up to ~15-feet above surround grade not

steeper than 33 percent (3H:1V) with final slopes above this level not steeper than 20 percent (5H: 1V). Final landfill slopes on top deck will be a uniform 3 percent sloped towards the northeast.

4.7 Cell Development

The originally permitted landfill design delineated two phases of development. Phase I is comprised of six total cells. With four MSW cells (Cell 2, Cell 3, Cell 5, Cell 6) and 2 C&D cells within the disposal area boundary (Cell 1, Cell 4). Additionally, separate dedicated areas for special wastes and dead animal wastes.

As of the date of issuance of this Permit Modification, all Phase I cells are developed and active. Development of the vertical expansion will occur simultaneously over the top deck of the existing waste fill connecting all cells.

4.8 Waste Placement

Refuse will be dumped from vehicles at the tipping area. The tipping area will be maintained near the active portion of the MSW area fill. Wastes will be pushed into the area fill and covered daily with 6 inches of compacted soil. In no case will wastes be allowed to be deposited in depths greater than 2 feet without compaction. The process of placing, covering, and compacting waste will be repeated then until final elevations are reached.

4.9 Waste Types

The facility is a MSW area-fill disposal site and is authorized to accept MSW, Construction & Demolition (C&D) waste, and various special wastes as described in Section 2.8 “Special Wastes” of the Operations Plan from the 2nd Revision Permit Application – no other waste is permitted for acceptance at this facility.

4.10 Site Access

The Tonopah Landfill can be accessed from U.S. Highway 6 by traveling approximately 6 miles east of Tonopah and then south for approximately one half mile. The access road transects public lands. Nye County holds the right-of-way grant for the access road to the Phase I and II disposal areas.

4.11 Borrow and Stockpile Areas

Soil materials for construction of the final landfill cover will be obtained from excavated material from within the landfill footprint and/or a proposed on-site borrow area. If suitable cover material cannot be obtained on-site, then suitable material will be imported from an outside source. Prior to closure construction, it will be demonstrated that soils to be used for final cover construction will satisfy the respective soil layer requirements (physical properties and volumetric needs) of the final cover.

4.12 Location Relative to Groundwater Surface

Groundwater surface elevations within the limits of the Class II Disposal Facility range from approximately 280 to 350 feet below base grades. Water level measurements from boreholes drilled during site characterization were used to generate groundwater contours which show a gradient from southwest to northeast across the property.

4.13 Run-on Control Systems

Run-on control channels have been designed to pass the 25-year, 24-hour storm event around the sides of the municipal solid waste disposal areas. The run-on control channels around the disposal areas will be V-ditches with 3:1 side slopes and a minimum of 1.5 feet deep or trapezoidal channels that are 8 feet wide with a minimum depth of 2 feet. A 24-inch diameter corrugated metal pipe (CMP) culvert will be installed under the Phase II access road to carry flow from the southern border of Phase I and the western border of Phase II to the northeastern outfall area.

4.14 Run-off Control Systems

Surface water diversion ditches and/or berms will be constructed to divert surface flow around the operating areas and disposal areas. The ditches and/or berms will be sized to divert peak flows from a 24-hour, 25-year storm event. Run-off control ditches will be constructed downgradient from the landfill areas where municipal solid waste is disposed. These ditches will be a minimum of 1.0 feet deep and will divert run-off from the landfill area to the run-off control basins.

All Phase I run-off will ultimately collect into a perimeter channel along the northern and eastern toe line which conveys Phase 1 stormwater run-off volume to Basin #3. Run-off from the landfill areas will be directed to the run-off control detention basins prior to being discharged from the site. Storm water run-on and run-off will be discharged from the site through riprap outfalls.

4.15 Landfill Gas Monitoring System

Under the required criteria for control of explosive gases (**NAC 444.667**), the Permittee performs routine quarterly perimeter landfill gas monitoring using a monitoring probe network which was installed along the property boundary in 2016. Five permanent wells are in place around the Phase I landfill perimeter and are sampled quarterly for detection of landfill gas.

4.16 Landfill Groundwater Monitoring System

The low rainfall, significant depth to groundwater (approximately 200 feet), and proposed operating procedures all combine to make the proposed Phase I design protective of Waters of the State as required by **NAC 444.708**. Therefore, no liner or leachate management facilities were proposed for Phase I or its proposed vertical expansion. The proposed vertical expansion over the top of existing solid waste disposal area of Phase I also does not require an over-liner system design or leachate management facilities as all new waste will be placed in contact with and over existing and in-place Phase I waste.

4.17 Scales and Weighing

The site entrance will be equipped with a single truck to be located adjacent to the Landfill Attendant shack. All customers will be required to enter over the scale and the Landfill Attendant will weigh the loaded vehicle. Once waste unloading is complete the customer will exit over the scale and the Landfill Attendant will weigh the unloaded vehicle. The Landfill Attendant will record the weight difference between entrance and exit as the weight of the waste deposited at the landfill.

Estimated volumes of incoming refuse loads will be recorded by the site attendant. The facility will keep and maintain a truck scale at the entrance of the facility for accurate record keeping on waste tonnages disposed at Tonopah Landfill. All customers will be required to weigh in upon entry to the facility prior to disposing of waste loads, and again prior to exit after disposing of the waste load. The difference in vehicle weight between entry and exit will be recorded as the weight of the waste disposed.

4.18 Closure

A closure and post-closure monitoring plan has been developed in accordance with NAC 444.6895. Details of the closure and post-closure monitoring program are contained in the Closure Plan submitted as part of the 2nd Revision Permit Application for a permit to operate a Class II disposal site.

5. Document Availability

The ADMINISTRATIVE RECORD, which includes the DRAFT PERMIT, and correspondence are available for public review by appointment between 8:00 AM and 5:00 PM, Monday through Friday, at the Division's office.

Located at: Nevada Division of Environmental Protection
Bureau of Sustainable Materials Management
901 S. Stewart St., Suite 4001
Carson City, NV 89701-5249
Main Line: 775.687.9462

6. Procedure for Public Review

Questions or comments may be submitted on or before the end of the public comment period.

In writing to: Permitting Branch Supervisor – Jonathan Zittel
Bureau of Sustainable Materials Management
901 S. Stewart St., Suite 4001
Carson City, NV 89701-5249
Email: jzittel@ndep.nv.gov or;
Telephone: 775.687.9465

The Division's Notice of Intent to approve the modified Permit for the Tonopah Class II Landfill subject to the conditions contained in the Permit, will be published on the NDEP website. Additionally, the Public Notice will be mailed to interested persons on our mailing list. The Division will accept written comments on the proposed draft permit from all interested persons until the end of the public comment period.

7. Public Hearing

A request for a public hearing may be submitted to the Division to the address or email listed above. A request for a public hearing shall be submitted in writing to the address shown above or email shown above. If the request is granted, a separate Public Notice will be published.

8. Comment Period

The 30-day comment period ends at 5:00 p.m. on **TBD** 2024. Those wanting to comment should do so by **writing**. The Division may extend the comment period as deemed necessary.