

1 **BEFORE THE STATE ENVIRONMENTAL COMMISSION**

2 **STATE OF NEVADA**

3 In Re:)
4 Appeal of Solid Waste Disposal Site Permit)
#SW495REV00)
5 Operator: Recology)
6)
7 _____)

**NEVADA DIVISION OF
ENVIRONMENTAL PROTECTION'S
RESPONSE TO OPENING BRIEFS OF
CLEAN DESERT FOUNDATION, INC.,
ROBERT HANNUM, AND RICHARD
COOK**

8 The Nevada Division of Environmental Protection, Bureau of Waste Management
9 ("NDEP"), by and through counsel, Catherine Cortez Masto, Attorney General for the State of
10 Nevada, and Cassandra P. Joseph, Deputy Attorney General, hereby responds to the
11 Opening Briefs of Appellants Clean Desert Foundation, Inc., Robert Hannum and Richard
12 Cook in the above captioned matter. On February 29, 2012, NDEP issued Class I Solid
13 Waste Disposal Site Permit No. SW495REV00 (the "Permit") to permittees Nevada Land and
14 Resource Company, LLC as owner and Recology Nevada, Inc., the parent company of Jungo
15 Land and Investments, Inc. as operator (collectively "Recology") for the Jungo Disposal Site
16 located approximately 25 miles west of Winnemucca, Nevada ("Jungo landfill"). On March 9,
17 2012, Appellants Clean Desert Foundation, Inc. ("CDF"), Robert Hannum and Richard Cook
18 (collectively "Appellants") each filed a Form #3 Request for an Appeal Hearing with the State
19 Environmental Commission ("SEC"). The SEC is scheduled to hold a consolidated hearing
20 on the Appeals on May 21 and 22, 2012.

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23 **I. INTRODUCTION**

24 Appellants fail to show that NDEP violated any statute or regulation in issuing the
25 Permit, and instead resort to arguments that presume failure of the Jungo landfill design, as
26 well as other speculative and unfounded scenarios that simply do not play into the analysis of
27 whether or not to issue a Class I solid waste disposal site permit under NRS 444.440 through
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1 NRS 444.440 through 444.620 and NAC 444.6405 through 444.7499. For example,
2 Appellants flagship argument is that the Permit should not have been issued because *when*
3 the approved design of the Jungo landfill fails, the aquifer may be contaminated. Opening
4 Brief of Clean Desert Foundation, Inc. ("CDF Brief") at pp. 3-7; Opening Brief of Richard Cook
5 ("Cook Brief") at pp. 2-3.¹ This argument falls short because the Jungo landfill is, in
6 accordance with the applicable regulations, designed to prevent failure and to monitor
7 conditions for the detection of any potential failure before it occurs. As such, NDEP complied
8 with all applicable statutes and regulations in the issuance of the Permit. Indeed, NDEP was
9 obligated to issue the Permit at the point it determined that the design was sufficient to meet
10 the regulatory requirements, including the requirement to protect the waters of the State from
11 degradation by pollutants or contaminants.

12
13 Appellants urge the SEC to reverse the issuance of the Permit based on Appellants'
14 assertions that NDEP abused its discretion in permitting the Jungo landfill because the Jungo
15 landfill is allegedly: 1) located within 100 feet of the uppermost aquifer; 2) located within
16 1,000 feet of surface waters; 3) without sufficient controls to prevent the release of gasses; 4)
17 located where the soil is inadequate for daily cover or groundwater protection; 5) without an
18 adequate liner system; 6) compromised by seismic activity; and, 7) without an adequate
19 groundwater monitoring plan. As discussed in detail below, Appellants arguments are
20 meritless, and Appellants cannot show that NDEP abused its discretion in issuing the Permit
21 on any of these bases, or any other basis.

22
23 NDEP's unprecedented demands on Recology for a robust and protective landfill
24 design at the Jungo landfill has led to the highest state-of-the-art design for a landfill in the
25 state of Nevada. The design goes far beyond the legal threshold for issuing the Permit and is
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28 ¹ Because the arguments in the Opening Briefs of CDF and Robert Hannum are nearly identical, with only a few
formatting differences and some additional evidence relating to the issue of standing attached to Hannum's Brief,
for ease of reading, only citations to CDF's Opening Brief are provided here.

1 more than adequate to protect human health and the environment. For these reasons, the
2 SEC should affirm the issuance of the Permit.

3 **II. BACKGROUND**

4 On April 23, 2007, Humboldt County granted to Recology a Conditional Use Permit
5 #UH-07-05 ("CUP"), to construct and operate a municipal solid waste landfill in Humboldt
6 County, Nevada. In March 2008, Recology filed an application with NDEP for a Class I Solid
7 Waste Permit for the operation of a solid waste landfill at the Jungo landfill site, approximately
8 25 mile west of Winnemucca. Following more than three and one half years of comment,
9 technical review and design changes, on October 26, 2011, NDEP issued a draft permit and
10 opened public comment, which was extended to January 31, 2012. See Draft Permit with
11 Transmittal Letter (<http://ndep.nv.gov/bwm/jungo.htm>).² During the extensive public comment
12 period, NDEP held a public hearing on December 1, 2011 and addressed each concern
13 raised by the public at that time, including many of those now raised by Appellants in their
14 opening briefs. See NDEP Response to General and Specific Public Comment. On February
15 29, 2012, NDEP issued Class I Solid Waste Disposal Site Permit No. SW495REV00. See
16 Final Permit (http://www.sec.nv.gov/main/jungo_landfill.htm).
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19 During the three and one half years of technical review, the design for the Jungo
20 landfill was significantly enhanced to ensure the protection of human health and the
21 environment. Some substantial design features for the Jungo landfill include the following:

- 22
- 23 • A double polyethylene geomembrane liner thereby reducing the potential for
leakage;
 - 24 • A Leachate Collection and Removal System designed to reduce maximum
25 leachate buildup to a fraction of an inch (versus 30 cm) thereby reducing the
26 potential for leakage;
- 27

28 ² In order to reduce the volume of paper submitted with this Response, all documents cited are available at
<http://ndep.nv.gov/bwm/jungo.htm> unless otherwise noted.

- 1 • A Ground Water Protection Evaluation Plan designed to monitor and detect any
- 2 leaks at the earliest point through additional interim well monitors and two
- 3 angled borings;
- 4 • A Gas Control System with piping in the leachate collection system designed to
- 5 collect and dispose of gases;
- 6 • A Settlement Monitoring Program consisting of soil testing and borings to
- 7 measure settlement of soils over time;
- 8 • Quarterly sampling and testing of gas and groundwater;
- 9 • A Liner Degradation Program to test and report the condition of the liner at 10
- 10 and 25 years;

11 See Golder Report of Design ("ROD") at pp. 13-17; see also April 19, 2010 letter from
12 Recology to NDEP re Modification of Liner Design. These significant design features promote
13 the public health and environment and surpass the requirements under the regulations for
14 issuance of the Permit.

15 **III. STANDARD OF REVIEW**

16 In the past, the SEC has limited its review of appeals on the issuance of a permit to
17 evidence that was before the permitting agency at the time that it was making its permitting
18 decision to determine whether the agency violated a law or regulation in issuing the permit. In
19 the absence of such alleged violation, the SEC has dismissed an appeal. See Order Granting
20 Motion to Dismiss in re Appeal of Class I Air Quality Operating Permit to Construct to Jungo
21 Land & Investments, Inc. (June 9, 2010) (dismissing appeal "based on appellants' failure to
22 identify a legal or factual basis for denying [the] permit"). Here, Appellants do not dispute that
23 an abuse of discretion standard applies, however, they present several pieces of evidence for
24 the first time in their appeal briefs. Because the evidence was not before NDEP during the
25 permitting process, it should not be considered by the SEC in its review of whether or not
26 NDEP abused its discretion in issuing the Permit. The following

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1 evidence was not before NDEP during the permitting process: CDF and Hannum Briefs,
2 Exhibits 6-9, 11-15, 18-19, 22-23, and 25-27; Cook Brief, Exhibits A-1.

3
4 **IV. RESPONSE TO APPELLANTS' ARGUMENTS**

5 **A. The Comprehensive Design Of The Jungo Landfill Is Sufficient To Protect
6 The Aquifer**

7 Appellants argue that NDEP approved a "variance" when NDEP issued the Permit
8 because the base of the Jungo landfill is within 100 feet of the uppermost aquifer. CDF Brief
9 at pp. 4-7; Cook Brief at pp. 2-3. However, no "variance" was needed because under NAC
10 444.678(9) and NAC 444.681(1)(a), the base of a Class I site may be within 100 feet of the
11 upper most aquifer upon "approval of the solid waste management authority" if a design is
12 "sufficient to protect the waters of the State from degradation by pollutants or contaminants."

13 *Id.* In this case, the solid waste management authority, i.e. NDEP, required substantial
14 design enhancements for the Jungo landfill in several respects, specifically because of the
15 proximity to the aquifer, and in order to implement appropriate environmental controls to
16 protect the aquifer. See NAC 444.681(1)(a).

17
18 A comparison of the minimum design requirements to the design of the Jungo landfill
19 demonstrates the strenuous environmental controls implemented for the Jungo landfill. See
20 NDEP Public Hearing PowerPoint at Slides 10-16. Under NAC 444.681, a standard
21 composite liner system need only consist of at least a single liner constructed to maintain less
22 than 30 centimeters depth of leachate over the liner, and must have an upper component
23 consisting of a flexible membrane liner of at least 30 mils (60 mils if high density polyethylene)
24 and a lower component consisting of a layer of compacted soil that is at least 2 feet with a
25 hydraulic conductivity of no more than 10^{-7} centimeters per second. *Id.*

26
27 In contrast, the Jungo landfill design is a double liner system constructed to maintain a
28 fraction of an inch depth of leachate over the liner. See ROD at p. 14; Golder Groundwater

1 Protection Evaluation Plan dated July 27, 2011 ("Groundwater Plan") at 2.2 and 3.3. From
2 top to bottom, the base liner system includes a two foot thick operations soil layer, one foot
3 thick gravel blanket, central leachate and gas collection piping, 16 oz. geotextile cushion, 60
4 mil high density polyethylene, 2 foot thick compacted low permeability soil liner, secondary
5 geocomposite drainage layer and a second 60 mil high density polyethylene geomembrane.

6 *Id.* There is simply no question that these layers provide protection above and beyond that
7 required by the regulations.
8

9 In addition, the Jungo landfill design includes additional gas control system piping
10 adjacent to the liner system in order to minimize the potential for the migration of landfill gas
11 through the liner, the operation of a gas control system in advance of what is required under
12 waste management regulations, an interim groundwater monitoring system for the early
13 detection of any leakage to groundwater below the site, and an operations soil layer. See
14 ROD at p. 14; Groundwater Plan at 2.2 and 3.1. These design enhancements taken as a
15 whole provide substantial extra measures toward protecting the aquifer such that the design
16 more than compensates for the proximity to the aquifer, as determined by professional staff at
17 NDEP in approving the design. The professional and experienced opinion of NDEP staff
18 upon significant review and analysis should not be replaced by biased public input,
19 particularly where no evidence substantiates that the design is inadequate. To the contrary,
20 the design is the most protective design approved by NDEP to date.
21

22 Relying heavily on a 1995 report by David L. Berger (the "Berger Report"), Appellants
23 further argue that because the aquifer is not a closed-basin system, if leachate at the Jungo
24 landfill leaks into the aquifer, it will contaminate approximately 10 million acre-ft of water. See
25 CDF Brief at p. 5; Cook Brief at p. 2. Even assuming the Berger Report were an appropriate
26 study for analyzing the suitability of the specific Jungo landfill site for a solid waste permit—
27 which it is not due to the fact that the Berger Report is a study of the effects of mine
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1 dewatering in the entire 1200 square mile area basin rather than specific to the Jungo site—
2 the fact that the aquifer may be contaminated if a leak occurs does not play into the analysis
3 of whether or not to issue a permit under the regulations. Rather, the regulations require a
4 landfill be designed so as not to leak, and any leak would be a violation of the permit. See
5 NAC 444.681. Therefore, Appellants' assumption that the Jungo landfill will leak leachate into
6 the aquifer incorrectly presupposes that the design will fail and ignores NDEP's requirements
7 for substantial design enhancements to prevent a leak in the first place.
8

9 From a legal standpoint, NDEP could not have refused to issue the Permit simply
10 because the landfill is proposed within 100 feet of the aquifer where, as here, the design
11 adequately protects the groundwater from contamination and therefore satisfies NAC
12 444.681(1)(a). Accordingly, the SEC should reject Appellant's arguments that NDEP abused
13 its discretion in issuing the Permit on this basis.
14

15 **B. There Are No Surface Waters Within 1,000 Feet Of The Jungo Landfill And**
16 **The Design Is Sufficient to Accommodate The Water At The Site**

17 Although Appellants admit that the site is not identified as a FEMA floodplain, they
18 insist that surface waters exist within 1,000 feet of the Jungo landfill in order to argue that the
19 Permit should not have been issued under NAC 444.678(9). CDF Brief at p. 7; Cook Brief at
20 pp. 4-5. Appellants attempt to define surface water as any amount of pooling of water for any
21 limited period of time. This is illogical and simply not supported by the applicable regulations.
22 By all accounts based on geographical and hydrology studies in the area, there is no surface
23 water within 1,000 feet of the Jungo landfill site. See Natural Resources Conservation
24 Services Soil Report ("NRCS Soil Report") at pp. 141-147; ROD at p. 3. Accordingly,
25 Appellants' argument that NDEP abused its discretion in issuing a permit within 1000 feet of
26 surface waters is meritless.
27

28 In any case, the design and engineering of the Jungo landfill takes into consideration

1 the rainfall and other pooling of water that occurs at the site, regardless of whether the
2 pooling is called "surface waters" or not. The design includes drainage controls through the
3 diversion of surface ponding. Specifically, a four foot high perimeter berm will be constructed
4 to prevent run-on from any ponding following rain, and drainage will direct run-off away from
5 the waste management area of each of the modules. See ROD at p. 21.³

6 Moreover, additional protective measures at the Jungo landfill include temporary
7 stormwater detention basins adjacent to modules that will be used to collect meteoric waters
8 away from the modules. See ROD at p. 21. These controls, which are sufficient to handle
9 rain from a 25 year, 24 hour storm event, are adequate to ensure that the unsubstantiated
10 scenarios cited in Appellants' briefs do not occur. *Id.*; see CDF Brief at p. 8 (washout of solid
11 waste); Cook Brief at pp. 1-2 (speculated inability of vehicles to gain access to the site due to
12 wet soil, and the resulting need to pile waste indefinitely on railroad siding).

13
14 In sum, the permitting of the landfill complies with all regulatory authority and the issue
15 of water at the site has been properly considered and accounted for in the design and
16 engineering of the site.

17
18 **C. The Gas Control System Goes Above And Beyond Any Legal Requirement**
19 **In Order To Provide Additional Protective Measures**

20 Appellants argue in their briefs that the Gas Control System fails to properly protect the
21 environment because the release of noxious gases is likely even after the final cover is placed
22 on a module due to the fact that the integrity of the final cover is at risk. Even if Appellants
23 had preserved this argument on appeal by including it in their Form 3 Request for Hearing,
24 the argument fails. The gas control system adjacent to the liner system is designed to collect
25 and safely dispose of gases created from the landfill. The design includes piping as part of
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27 ³ Although Appellants argue that the soil at the site is not adequate for the construction of the drainage controls (*see* CDF
28 Brief at p. 9), the soil sample reports do not support this assertion and Appellants only refer to unreliable "anecdotal"
evidence. *See* ROD at Appendix A; *see also* Section D of this Response, *infra*.

1 the leachate collection system to create a vacuum that will collect and move gases from the
2 waste disposal area to the perimeter collection points where it will be safely eliminated. See
3 ROD at pp. 16-17. The gas monitoring and control system at the boundary of the landfill is
4 designed to detect and prevent any offsite movement of gas to adjacent property in addition
5 to the monitoring of site facilities. *Id.* This design exceeds the permitting regulations, which
6 only require monitoring of gases to confirm they remain below 100% of the lower explosive
7 limit for methane at the boundary and below 25% of the lower explosive limit for methane in
8 site facilities—not the proactive collection and elimination of gases. See NAC 444.667.

9
10 Even Appellants' favorite author on the subject of landfills, G. Fred Lee, endorses the
11 use of a gas collection system like that designed for the Jungo landfill. In one article, G. Fred
12 Lee states:

13 For those landfills that contain wastes that can produce landfill
14 gas, a landfill gas collection system should be designed, installed
15 and maintained for as long as the wastes in the landfill have the
16 potential to generate landfill gas. The landfill gas collection system
17 should be designed to have at least a 95-percent probability of
18 collecting all landfill gas generated at the landfill. It is
19 recommended that the gas collection system for a closed landfill
be operated under vacuum, including in the leachate collection
and removal system, to reduce the penetration of landfill gas
through the liner system, which could lead to groundwater
pollution.

20 See Flawed Technology of Subtitle D Landfilling of Municipal Solid Waste ("Flawed
21 Technology"), p. 71, by G. Fred Lee and Anne Jones-Lee, July 2011,
22 (www.gfredlee.com/Landfills/SubtitleDFlawedTechnPap.pdf). The system described and
23 endorsed by G. Fred Lee for "improving landfilling" is essentially the system designed for use
24 at the Jungo landfill.

25 **D. Recology Must Use Adequate Soil For Cover And Construction Purposes**

26 Appellants argue that the soil at the site location is inadequate to 1) meet the
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1 regulatory requirement for daily ground cover pursuant to NAC 444.678(4); 2) suffice as a soil
2 liner; and 3) support the weight of the waste to be stored at the landfill. CDF Brief at p. 11.
3 The condition of the soil for each of these purposes was addressed during the extensive
4 project review, and taken into account in the design of the Jungo landfill.

5 Appellants' argument that the soil at the Jungo landfill site is inadequate for meeting
6 the regulatory requirement for daily ground cover is a red herring. CDF Brief at p. 11.
7 Despite Appellants' assertions otherwise, no evidence presented by Appellants supports that
8 the soil is inadequate for ground cover. None of the soil reports indicate that the soil is not
9 "workable and compactible" as required under NAC 444.678(4), and none indicate that
10 insufficient volumes are available. See NCRS Soil Report; ROD, Table I (Earthwork
11 Balance). Nevertheless, even if the soil at the Jungo landfill site were inadequate to meet the
12 regulatory requirements of daily ground cover as alleged by Appellants, as with any landfill
13 operator, Recology would then be obligated to import soil or make other arrangements as
14 necessary in order to meet the statutory requirements. Nowhere in the Permit has NDEP
15 excused Recology from meeting any statutory obligations.
16

17
18 With respect to use of the soil for the soil liner, because the more permeable soil at the
19 Jungo landfill site may be insufficient to meet the design requirements for the soil liner,
20 Recology will likely need to import less permeable soil and/or make soil amendments.
21 Recology recognizes this obligation in the Record of Design as follows: "The existing site
22 soils will not meet the permeability requirements for the low-permeability soil liner. Therefore,
23 either suitable clay soils will either be imported, or the on-site soils will be admixed with
24 bentonite to produce a soil liner material with a permeability of 1×10^{-7} cm/s or less." ROD at
25 p. 15. Appellants' assertions that importation of clay soil is "unlikely" are unfounded. Plain
26 and simple, Recology will not be permitted to operate the Jungo landfill if construction of the
27 soil liner does not meet the design requirements.
28

1 Finally, Appellants argue that the compressive characteristics of the soil at the site will
2 make it impossible for the soil to withstand the weight of the Jungo landfill. CDF Brief at p.
3 12. However, as a result of the compressive characteristics of the soil, Recology reduced the
4 height of the initially proposed landfill by half—from 400 feet to 200 feet. See ROD at p. 12
5 (“height extends approximately 200 feet”). This significant reduction more than compensates
6 for the compressive characteristics of the soil, as determined by professional staff at NDEP.
7 Further, as an additional precautionary measure, Recology is obligated to conduct extensive
8 boring to test the soil at depths of 200 to 300 feet in order to confirm the subsidence model
9 presented in the application, continue to monitor the extent of subsidence pursuant to the
10 settlement monitoring program, and, if necessary, make any design modifications based on
11 those tests. See ROD at p. 8.

12
13 In sum, NDEP has not excused Recology from meeting any of the statutory
14 requirements for operation of a solid waste landfill. Rather, NDEP has made it clear that it will
15 strenuously enforce the regulations by requiring more robust design requirements, and that
16 appropriate measures to meet those requirements must be taken.

17
18 **E. The Double Liner Design For The Jungo Landfill Is Endorsed By G. Fred**
19 **Lee**

20 Appellants repeatedly state in their Briefs that all landfill liners will eventually leak.
21 See, e.g., CDF Brief at pp. 5-6. Based on this mantra, Appellants reason that even the
22 enhanced design for the Jungo landfill is insufficient to protect the aquifer. However, this
23 position demonstrates that Appellants believe that the regulations under which NDEP issues
24 solid waste permits are not protective and therefore NDEP should never issue a permit for a
25 solid waste landfill. NDEP must follow the permitting regulations which require use of landfill
26 liners. See NAC 444.681. Appellants appear to be confusing an appeal of the issuance of a
27 permit that was properly issued under the applicable regulations with a broader goal of
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1 regulation change, namely to eliminate the use of composite liners in landfills or eliminate
2 landfills altogether. Appellants have not demonstrated that NDEP violated the regulations
3 which govern the issuance of a Permit.

4 Although Appellants rely heavily on G. Fred Lee to argue that the Jungo landfill design
5 will fail because the liner system is inadequate, Appellants overlook that G. Fred Lee himself
6 repeatedly endorses the use of a double liner system similar to that designed for the Jungo
7 landfill. In one article, G. Fred Lee states as follow:

8
9 The fundamentally flawed technology of minimum design single
10 composite lined Subtitle D dry tomb landfills mandates that this
11 approach to landfilling be immediately terminated for all new and
12 expanded landfills. Instead, all new landfills **should be double
composite lined** using shredding of the non-recyclable
components of the wastes.

13 See Leachate Pollution by Single and Double Composite Lined Dry Tomb Landfills, p. 8, G.
14 Fred Lee, June 2005 (www.gfredlee.com/Landfills/Double-CompLF-Prot.pdf).

15 Therefore, while G. Fred Lee criticizes the use of liners for landfills in general, he does
16 support the use of a double liner to provide additional protection. In another publication, G.
17 Fred Lee further states that “[a]doption of this [double liner] approach, in part, will significantly
18 improve the ability of landfills to protect groundwater quality, public health and the
19 environment for as long as the wastes in the landfill will be a threat.” See Flawed
20 Technology, p. 71, by G. Fred Lee and Anne Jones-Lee, July 2011,
21 (www.gfredlee.com/Landfills/SubtitleDFlawedTechnPap.pdf).

22
23 The liner design for the Jungo landfill is robust enough to nearly meet the requirements
24 for a hazardous waste landfill. It certainly exceeds the requirements for permitting a Class I
25 solid waste landfill and therefore cannot serve as a basis for finding NDEP abused its
26 discretion in issuing the Permit.

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1 **F. The Argument Of Increased Threat Of Seismic Activity From A Nearby**
2 **Geothermal Plant Fails**

3 Appellants argue that increased seismic activity resulting from a nearby geothermal
4 plant should have prevented the issuance of the Permit. CDF Brief at p. 14. This argument
5 and evidence was not before NDEP during the permitting process, therefore NDEP's decision
6 to issue the permit cannot be considered an abuse of discretion based on this evidence.

7 Nevertheless, the evidence is not convincing. Appellants readily admit that geothermal
8 activity at best may "at time result in low magnitude events known as microearthquakes."
9 CDF Brief at p. 14 (citing Exhibit 27). However, even assuming some increased seismic
10 activity, Appellants have not shown that the alleged "microearthquakes" exceed the level of
11 seismic activity for which the Jungo landfill has been engineered and designed to withstand,
12 namely permanent displacements of 6 to 12 inches. See ROD, Appendix K at Sections 2.1
13 and 2.3. Given that the estimated seismically-induced displacements range from 0 to 0.6
14 inches for the representative acceleration time histories, which is more than a factor of 10
15 times lower than the maximum allowable under the Jungo landfill design, sufficient buffer
16 exists to absorb any increased activity as a result of alleged "microearthquakes."
17

18 Accordingly, for the above reasons, the argument of increased seismic activity from the
19 geothermal plant cannot support a ruling that NDEP abused its discretion in issuing the
20 Permit.

21
22 **G. The Extensive Groundwater Monitoring Plan Provides Abundant Data**
23 **Upon Which NDEP Will Rely To Protect Against Leakage**

24 Appellants appear to misunderstand the Groundwater Monitoring Plan. They assert
25 that "the four ground water monitoring wells are insufficient in number and design to
26 adequately measure leachate throughout the lifetime of the site," and on that basis conclude
27 that the groundwater monitoring plan fails to protect the health and safety of the public. CDF
28 Brief at pp. 15-17. However, the monitoring wells described by Appellants are not the extent

1 of the groundwater monitoring plan, much less the other measures taken in the design of the
2 overall landfill to protect the groundwater. Rather, those wells only supplement additional
3 wells used in the system.

4 As a threshold matter, it is important to note that a groundwater monitoring plan meets
5 the statutory requirements if it yields samples from the "uppermost aquifer" using "consistent
6 sampling and analytical procedures designed to ensure monitoring results which provide an
7 accurate representation of the quality of the background and downgradient groundwater at
8 the monitoring wells installed in compliance with NAC 444.7483. See NAC 444.7483 and
9 444.7484(2). Here, the groundwater monitoring plan goes well beyond this requirement, not
10 only providing for the testing of the uppermost aquifer using nine wells along the southern and
11 western boundaries directly downgradient of the waste modules, but also four interim
12 groundwater monitoring wells and two angled borings that will minimize the time required for
13 the detection of a leak from the initial landfill modules leachate sumps. ROD, Vol. III,
14 Appendix D at 2.1; see Groundwater Plan at 3.4. The four interim groundwater wells and
15 angled borings are *in addition* to the required monitoring points and are not the extent of the
16 monitoring system as Appellants appear to believe. See ROD, Vol. III, Appendix D;
17 Groundwater Plan.

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20 Appellants also appear to be confused in that they believe that monitoring is "limited to
21 detecting the Maximum Contaminant Levels (MCL) found in a limited list of constituents."
22 CDF Brief at p. 15. Sampling will be conducted using recommended methods adopted by the
23 State of Nevada on a comprehensive list of metals and other compounds (volatiles and semi-
24 volatiles) as dictated by the regulations and guidelines, including chloride, nitrate, sulfate,
25 arsenic, mercury, lead and dozens of others. See ROD, Vol. III, Appendix D, Table 2.

26
27 The required reporting at 10 and 25 years that Appellants cite to (CDF Brief at p. 15) is
28 supplemental reporting for a landfill performance review. See Groundwater Plan at 4.0; ROD,

1 Vol. III, Appendix D at 1.2. It is in addition to other regular reporting, including reporting of
2 quarterly sampling of monitoring wells. *Id.* Therefore, Appellants' assertion that the 10 and
3 25 year reporting alone is insufficient is true, but Appellants have ignored the extensive other
4 reporting contained in the Monitoring Plan.

5 With respect to the post closure monitoring period, NDEP can and will extend the time-
6 frame for groundwater monitoring as appropriate based on results from the host of data that
7 will be reported throughout the lifetime of the Jungo landfill. In sum, Appellants' assertions
8 that the sampling and reporting under the Groundwater Plan are insufficient are based on an
9 erroneous understanding of the Plan and how it works in conjunction with the Monitoring Plan
10 and the design of the landfill as an entire system.
11

12 **V. CONCLUSION**

13 Appellants fail to show that NDEP abused its discretion in issuing the Permit. During
14 the course of its technical review, NDEP required Recology to make substantial
15 enhancements to the design of the Jungo landfill in order to adequately protect human health
16 and the environment. Accordingly, NDEP issued the Permit in compliance with the permitting
17 regulations. For these reasons, NDEP respectfully requests that the SEC deny the appeals
18 and affirm the issuance of the Permit.
19
20

21 DATED this 2nd day of May, 2012.

22 CATHERINE CORTEZ MASTO
23 Attorney General

24 By: 

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CERTIFICATE OF SERVICE

I, Heather Cooney, certify that I am an employee of the Office of the Attorney General, State of Nevada, and that on this 2nd day of April, 2012 I transmitted a true and correct copy of the foregoing **NEVADA DIVISION OF ENVIRONMENTAL PROTECTION'S RESPONSE TO OPENING BRIEFS OF CLEAN DESERT FOUNDATION, ROBERT HANNUM AND RICHARD COOK** , via email to the following:

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