

1 JOHN FRANKOVICH (NV Bar. No. 667)
jfrankovich@mcdonaldcarano.com
2 DEBBIE LEONARD (NV Bar. No. 8260)
dleonard@mcdonaldcarano.com
3 McDONALD CARANO WILSON LLP
100 West Liberty Street, 10th Floor
4 Reno, NV 89501
(775) 788-2000 (phone)
5 (775) 788-2020 (fax)

6 Attorneys for Intervenor and Real Party in Interest
7 Recology, Inc.

8 **BEFORE THE STATE OF NEVADA**
9 **STATE ENVIRONMENTAL COMMISSION**

10
11 In re
12 **APPEALS OF CLASS I SOLID WASTE**
13 **DISPOSAL SITE PERMIT # SW495REVOO**
14 _____/

**RECOLOGY'S
RESPONDING BRIEF**

15 Intervenor and Real Party in Interest Recology, Inc., by and through counsel of record
16 McDonald Carano Wilson LLP, submits this Responding Brief to the appeals of Richard Cook,
17 Robert Hannum and Clean Desert Foundation, Inc. ("CDF").¹

18 **INTRODUCTION**

19 The Appellants' opening briefs have not identified any basis for overturning the solid
20 waste disposal site permit issued by NDEP for the Jungo landfill project. To the contrary, the
21 arguments presented by Appellants underscore that NDEP properly exercised its discretion to
22 issue that permit. Distilling these appeals to their core, Appellants want the Jungo project to be
23 held to more exacting standards than Nevada's regulations require. To the extent the Appellants
24 _____

25 ¹ To avoid repetition and for the ease of the Commission, Recology submits just one responding
26 brief to the opening briefs of the three appellants. In so doing, Recology does not suggest or
27 concede that the issues addressed in this responding brief were raised by each separate appellant.
28 Nor does Recology waive its objections that the arguments in the opening briefs exceed the scope
of the Form 3's that each appellant submitted. Those objections are addressed herein. Because of
the extensive arguments in the three opening briefs (two of which exceeded the page limit),
Recology respectfully submits this responding brief 4 pages in excess of the brief length specified
in the Commission's April 2, 2012 Order.

1 think that Nevada’s solid waste regulations are not adequately stringent, however, they may only
2 mount a challenge through this Commission’s rulemaking process, not in a permit appeal.

3 NDEP went through a demanding four-year review that resulted in numerous technical
4 changes to the Jungo project to ensure the protection of Nevada’s environmental resources. The
5 landfill design involves a double liner system that surpasses the regulatory requirements. The
6 run-on/run-off design, leachate and landfill gas collection and control systems, groundwater
7 monitoring plan and landfill engineering likewise meet or exceed the standards set forth in the
8 Nevada Administrative Code. As a result, it was well within NDEP’s discretion to issue the
9 permit, and there are no grounds for this Commission to disturb NDEP’s decision.

10 **STATEMENT OF ISSUES**

11 Did NDEP properly exercise its discretion to issue a Class I Solid Waste Disposal Site
12 Permit for the Jungo landfill, as the applicant had met or exceeded all regulatory requirements?

13 **STATEMENT OF FACTS**

14 **A. The Permittee**

15 Recology, Inc. and its subsidiaries are in the business of providing solid waste services to
16 communities in California, Oregon, Nevada and Washington. These services include residential
17 and commercial recycling, materials recovery, construction and demolition debris recycling,
18 large-scale composting of food scraps and organic waste, compost sales, waste collection,
19 transfer, disposal and landfill operations, planning and administration.

20 Jungo Land & Investments, Inc. (“Jungo”) is a wholly-owned subsidiary of Recology
21 Nevada, Inc., which in turn is a wholly-owned subsidiary of Recology, Inc. Jungo is the holder of
22 a Conditional Use Permit granted by Humboldt County on or about April 23, 2007, #UH-07-05
23 (“CUP”), to construct and operate a municipal solid waste landfill in Humboldt County, Nevada.
24 Jungo has a leasehold interest with an option to purchase the real property upon which the
25 proposed landfill will be constructed, identified as Sec. 7, T35N, R33E, approximately 25 miles
26 west of Winnemucca, Nevada (“Property”).

27 ///
28 ///

1 **B. The Permitting Process**

2 Starting in 2006, Recology representatives met with staff from NDEP's Bureau of Waste
3 Management to discuss the process for obtaining a Class I solid waste disposal site permit for the
4 Jungo site. Recology submitted the permit application, prepared by its consultant Golder
5 Associates, in April 2008, which was deemed complete on January 15, 2009. In March 2009,
6 NDEP provided its first technical review of the Jungo application. Thereafter, Recology provided
7 responses and met with NDEP staff to discuss the proposed landfill design. In April 2010, in
8 response to NDEP comments, Recology submitted a revised design that included a secondary
9 geomembrane liner and secondary leachate collection and removal/leak detection system and
10 Groundwater Protection Evaluation Plan.

11 After multiple sets of technical comments from NDEP and responses from Recology,
12 NDEP completed its technical review and issued public notice of intent to issue the permit.
13 NDEP staff held a public hearing in Winnemucca on December 1, 2011. After nearly four years
14 of intensive review, NDEP issued the final permit on February 29, 2012. Cook, CDF and
15 Hannum then filed appeals. (See Form 3's).²

16 **ARGUMENT**

17 **A. Standard of Review**

18 An agency decision should only be set aside if it is:

- 19 (a) In violation of constitutional or statutory provisions;
- 20 (b) In excess of the statutory authority of the agency;
- 21 (c) Made upon unlawful procedure;

22 _____
23 ² The arguments presented in Appellant Hannum's Opening Brief far exceed the scope of matters
24 raised in his Form 3 and therefore must be stricken. See Order of State Environmental
25 Commission, *In re Appeal of Dayton Consolidated Exploration Project Permit No. 0315*, March
26 15, 2012 at 2:2-6 and Trans. of 2/16/12 Appeal Hearing at 69:14-71:23 (dismissing appeal
27 because Form 3 did not identify error by NDEP). The only ground for Hannum's appeal
28 identified in his Form 3 is that NDEP allegedly violated the Clean Water Act by issuing the
permit for the Jungo landfill. Since the permit for the Jungo project does not allow any
discharges into waters of the state, the sole basis for Hannum's appeal is simply wrong, and his
appeal must be dismissed. To the extent the Commission nevertheless allows Hannum's appeal
to proceed, only the arguments relating to groundwater should be considered. Because the
arguments in Hannum's brief are identical to those in the CDF brief, pertinent references herein
are generally to the page and line numbers in the CDF brief.

- 1 (d) Affected by other error of law;
 - 2 (e) Clearly erroneous in view of the reliable, probative and substantial evidence on the
 - 3 whole record; or
 - 4 (f) Arbitrary or capricious or characterized by abuse of discretion. NRS 233B.135.
- 5 “Substantial evidence is evidence which a reasonable mind might accept as adequate to support a
- 6 conclusion.” Schepcoff v. State Indus. Ins. Sys., , 109 Nev. 322, 325, 849 P.2d 271, 273 (1993).

7 Appellants concede that the Commission must review NDEP’s issuance of Recology’s

8 solid waste disposal site permit under an abuse of discretion standard and uphold NDEP’s

9 decision if it is supported by substantial evidence in the record. Cook Br. p.2 (“NDEP abused

10 their discretion and acted arbitrarily and capriciously”); Hannum Br. 3:2-3 and 5:19-20 (Issue

11 presented: “Did NDEP staff abuse and/or wrongfully exercise its discretion to find grounds to

12 issue the operating permit to Jungo?”); see also CDF Br. 3:2-11, 6:17-18). In fact, in arguing that

13 NDEP “had discretion to find otherwise and not issue the permit,” Appellants effectively concede

14 that, when issuing the permit, NDEP acted within its discretion. (Id. at 2:12-13).

15 Since, as Appellants acknowledge, the Commission must affirm NDEP’s issuance of the

16 permit if supported by substantial evidence, all of the documents that Appellants include with

17 their opening briefs that were never presented to NDEP must be stricken as outside the

18 administrative record. This includes CDF and Hannum Exhibits 6-9, 11-15, 18-19, 22-23, 25-27

19 and Cook Exhibits A-I. Where Appellants did not give NDEP the opportunity to consider these

20 exhibits during the review process, it would be improper for this Commission to second guess

21 NDEP’s decision making based upon these extra-record documents.³

22 ///

23 ///

24 ///

25 ///

26 _____

27 ³ Not only did Appellants never present these documents during the public comment period, but

28 they attempt to mislead the Commission by creating the appearance that the documents are

technical in nature. A cursory review of these documents shows that they are unauthenticated and

not based on real conditions or accurate assumptions. (See, e.g., CDF Ex. 12 and 15).

1 **B. NDEP Properly Exercised its Discretion to Conclude That the Liner System and**
2 **Other Design and Operation Measures Will Protect Groundwater**

3 **1. NDEP Did Not Grant a “Waiver” or “Variance” Regarding the Distance**
4 **From Groundwater**

5 The Nevada Administrative Code expressly gave NDEP discretion to approve the Jungo
6 landfill in relation to groundwater level that exists at the site. “The location of a Class I site must
7 . . . [u]nless approved by the solid waste management authority, not be within . . . 100 feet of the
8 uppermost aquifer . . .” NAC 444.678(9) (emphasis added). Any Class I site, whether or not
9 within 100 feet of groundwater, must be approved by NDEP. NAC 444.678(7). Moreover, the
10 regulation was promulgated for landfills that lack liner systems where the soil buffer was all that
11 existed to protect the waters of the state. NAC 444.681(1) (requiring that a landfill design be
12 “sufficient to protect the waters of the State from degradation by pollutants or contaminants; or
13 [w]ith a composite liner and a system for the collection of leachate . . .”). With the advent of
14 modern liner systems such as that approved in Jungo’s permit, the quality of the liner – not the
15 distance to the aquifer – is most important. See id.

16 **2. The Containment System Meets the Regulatory Requirements to Prevent**
17 **Degradation to Groundwater**

18 NDEP properly issued Recology’s permit because the Jungo project is designed with more
19 robust environmental controls than the minimum prescriptive standard. Under the Nevada
20 Administrative Code, a Class I site must be designed to “[p]revent pollutants and contaminants
21 from the municipal solid waste landfill units at the site from degrading the waters of the State.”
22 NAC 444.678(2). Where a liner is incorporated into the design, the regulations specifically
23 require that the landfill be constructed:

24 With a composite liner and a system for the collection of leachate which is
25 designed and constructed to maintain less than a 30-centimeter depth of
26 leachate over the liner. The composite liner must have an upper
27 component consisting of a flexible membrane liner of at least 30 mils and
28 a lower component consisting of a layer of compacted soil that is at least 2
feet with a hydraulic conductivity of no more than 10⁻⁷ centimeters per
second. Components of the flexible membrane liner consisting of high

1 density polyethylene must be at least 60 mils.⁴ The flexible membrane
2 liner must be installed in direct and uniform contact with the compacted
3 soil.

3 NAC 444.681(b).

4 The Jungo containment system exceeds the minimum standard through a design that has
5 additional waste containment layers, a reduced potential for leakage, more efficient leachate
6 controls that limit leachate accumulation on the liner, and early and more efficient landfill gas
7 controls. The containment system consists of the following elements:

- 8 • A double-liner system with primary and secondary leachate collection. (Report of Design
9 (“ROD”) at p. 13).
- 10 • A high-capacity leachate collection and removal system (LCRS) on top of a composite
11 liner system. The high capacity system will limit maximum leachate build-up to a fraction
12 of an inch and thereby reduce the leakage potential of leachate. The fraction of an inch is
13 far less leachate than the 30-centimeter (~ 12 inch) depth allowed under the regulations.
14 (Id. at pp. 13-14).
- 15 • Additional gas control system piping that will be incorporated in the LCRS system. This
16 allows the potential to develop a vacuum on top of the liner to minimize the potential for
17 the migration of landfill gas through the liner. (Id. at p. 14). Particularly given the arid
18 climate of the Desert Valley, the minimal leachate generation anticipated at the site and
19 the final cover designed to prevent leachate production, the LCRS more than adequately
20 meets the regulatory standard. (App. G).
- 21 • Early operation of landfill gas controls. Early operation means that landfill gas controls
22 will be operated once landfill gas is generated in sufficient volumes for collection and
23 disposal instead of waiting for the landfill gas generation to reach air emissions
24

25
26 ⁴ Appellants’ attack on HDPE liners (CDF Br. at 7:3-4; Cook Br. p. 3) is yet another example of
27 where they challenge the regulations themselves and not NDEP’s compliance with those
28 regulations. Where the regulations allow applicants to use 60-mil HDPE liners, NDEP properly
exercised its discretion to approve a 60-mil HDPE layer as an element of Jungo’s proposed liner
design.

1 thresholds, which is the typical standard of practice. (July 2011 Groundwater Protection
2 Evaluation Plan (“GPEP”) at p. 2).

- 3 • An operations soil layer to protect the liner system from damage due to equipment or
4 sharp debris in the refuse. (Id.).

5 In addition to the environmental controls listed above, an interim groundwater monitoring
6 system will be installed that will allow for early detection of any leakage to groundwater below
7 the site.

8 The base liner system will, from top to bottom on the floor of the landfill, contain:

- 9 • 2-foot-thick operations soil layer;⁵
- 10 • 1-foot thick gravel blanket for the primary LCRS with a permeability of 1 cm/s or greater;
- 11 • Central leachate collection piping within each module to provide redundant leachate
12 capacity;
- 13 • 16-oz geotextile cushion;
- 14 • 60-mil high-density polyethylene (HDPE) primary geomembrane;
- 15 • 2-foot thick compacted low-permeability soil liner with a permeability (k) less than or
16 equal to 1×10^{-7} cm/s;
- 17 • A secondary geocomposite drainage layer for secondary LCRS; and
- 18 • A 60-mil high-density polyethylene (HDPE) secondary geomembrane.

19 (Id. at pp. 2-3 and Fig. 1; Drawing 4, Vol. III).

20 On the side-slopes, the base liner system is comprised of the following components from
21 top to bottom:

- 22 • 2-foot thick operations soil layer;
- 23 • Geocomposite drainage layer (geonet with geotextile heat-bonded to both sides) for the
24 LCRS;
- 25 • 60-mil HDPE primary geomembrane;

27 ⁵ The ROD contains a typo that the operations soil layer will be 1-foot thick. (ROD p. 14). The
28 engineering drawings correctly depict what will be a 2-foot thick operations soil layer. (Drawing
04).

- 1 • 2-foot thick compacted low-permeability soil liner ($k \leq 1 \times 10^{-7}$ cm/s).
- 2 • A secondary geocomposite drainage layer for the secondary LCRS; and
- 3 • A 60-mil high-density polyethylene (HDPE) secondary geomembrane.

4 (GPEP at p. 3). This design exceeds the regulatory requirement. See NAC 444.681(b).

5 That the environmental controls approved by NDEP will protect groundwater is supported
6 by:

- 7 • The limited amount of leachate that is produced in dry climates;
- 8 • The low-permeability final cover system that, according to the literature, should reduce
9 leachate generation to approximately 10 percent of the operational leachate generation rate
10 within 4 years following closure and render the leachate generation rate negligible within
11 9 years of closure.⁶
- 12 • The relative ease with which landfill gas controls can be modified to enhance gas
13 collection and control if necessary by adding more collection wells or adjusting vacuum
14 pressures for individual wells.
- 15 • The low leakage potential through a potential geomembrane defect in a composite liner
16 because the high capacity leachate collection system will leave only a fraction of an inch
17 of leachate on the liner.

18 (GPEP at p. 4). Since Golder's modeling of potential leakage through a single, composite clay
19 liner predicted no measurable leakage through that liner system, the leakage potential through the
20 proposed double liner system would be negligible. Performance of single composite liner
21 systems show an average efficiency of 99.96%, and the double liner system proposed for the
22 Jungo landfill should perform even better. (GPEP at pp. 4-5).

23 The arguments presented by Appellants do not alter this conclusion. For example,
24 whether or not the aquifer is a closed-basin or open-basin system (CDF Br. at 4:2-16) is irrelevant

25 _____
26 ⁶ Because leachate generation falls off dramatically upon closure, in the event a leak is detected,
27 the cell will be closed and covered so that leachate ceases to be generated. Additional corrective
28 measures will be evaluated and implemented as required by NAC 444.7493 through 444.7499.
Contrary to Appellants' concern (CDF Br. at 13:17-25), access to the leak itself may not be
necessary to ensure that public health, safety and the environment are protected.

1 because the double liner system meets the regulatory requirements to protect groundwater.
2 Likewise, Appellants' arguments as to the volume and thickness of the aquifer have no bearing on
3 NDEP's proper exercise of its discretion because NDEP only needed to ensure that the
4 containment system met the requirements of the Nevada Administrative Code, which it does. See
5 NAC 444.681(b).

6 Appellants' contention that "all liners leak" is baseless for a number of reasons. First, it is
7 based upon an outdated 1988 report that was looking at a single, not double, liner system. (CDF
8 Br. at 5:25-6:4). Appellants likewise rely on obsolete, hearsay and non-peer-reviewed
9 "information" to support their argument that waste will degrade the HDPE layer of the liner.
10 (Cook Ex. C). Second, Appellants ignore that (1) because of the arid climate, little leachate
11 production is anticipated in this landfill; (2) design controls will prevent more than a fraction of
12 an inch in accumulation of leachate on the liner surface (where the regulations allow up to 12
13 inches); and (3) the landfill design has a leak detection system between the two liner layers.
14 (ROD pp. 14-15).

15 Indeed, Appellants' arguments regarding groundwater show that they are talking out of
16 both sides of their mouths. On the one hand, Appellants contend that alleged leakage from the
17 landfill will contaminate the entire Desert Valley aquifer of 10 million acre feet, as well as
18 adjacent aquifers. (CDF Br. at 4:2-5:2). On the other hand, Appellants cite to the report of G.
19 Fred Lee, who argues that leakage will go undetected because any purported plumes would be too
20 narrow for the 18 monitoring wells to detect. (CDF 17:6-7 and Ex. 9 Fig. 1).⁷ If, as Appellants
21 erroneously contend, the alleged contamination would spread across 10 million acre feet of
22 groundwater over many miles, it would certainly be detected by the monitoring wells within and
23 on the perimeter of the landfill site. Moreover, evaluating the site hydrology and assuming *the*
24 *absence of any protective liner or detection system*, the United States Geologic Survey estimated

25 _____
26 ⁷ Notably, although Mr. Lee's report was part of the comments presented to NDEP, the Humboldt
27 County Commission, which submitted Lee's report, has chosen not to appeal NDEP's issuance of
28 the permit. Moreover, Mr. Lee himself acknowledges that the Jungo design and closure/post-
closure period comply with Nevada's regulations. (12/9/11 Lee Report p. 8). Likewise, in
criticizing single liner systems, Lee himself recommends the type of double liner design that will
be employed at the Jungo site. (CDF Ex. 9).

1 that contaminants would travel about 0.2 miles and a maximum of 2.5 miles in 95 years.
2 (Hydrologic Evaluation of the Jungo Area, Southern Desert Valley, Nevada, Open File Report
3 2010-1009, p. 7). Given the double liner system and the extensive groundwater monitoring plan
4 presented with the Jungo application, NDEP was well within its discretion to issue the permit.
5 Appellants' arguments to the contrary simply demonstrate that they do not understand the liner
6 system or local hydrology.

7 **3. The Groundwater Monitoring Program Exceeds Regulatory Requirements**

8 The Nevada Administrative Code sets forth the requirements for a system and program
9 for sampling and analyzing of groundwater. NAC 444.7483, 444.7484. Recology's application
10 to NDEP contained a detailed groundwater monitoring plan that describes the groundwater
11 monitoring network, sampling and analytical procedures and detection monitoring. (Vol. III,
12 Operations Plan, App. D). The groundwater contour map and a groundwater monitoring map
13 submitted by Recology showed eighteen (18) present and future monitoring wells. (Id. at Figures
14 1 and 2).⁸ The interim monitoring program would consist of monitoring wells directly below the
15 leachate sumps. (GPEP p. 6 and Fig. 2 thereto).⁹ During the initial Phase 1 and Phase 2
16 monitoring periods, groundwater monitoring wells and leachate sumps will be sampled quarterly
17 for 12 continuous quarters. (Monitoring Plan at p. 9). Thereafter, pursuant to NAC 444.7488, the
18 sampling frequency will be modified to a semi-annual schedule, if warranted. (Id.).

19 Contrary to Appellants' erroneous argument (CDF Br. 15:8-16), Jungo's application
20 adequately addressed aquifer thickness. The monitoring plan plainly states that "[t]he thickness
21 of the first-encountered water-bearing zone ranged from approximately 10 to 30 feet."
22 (Monitoring Plan at p. 1). The four existing monitoring wells were completed to depths of 76 to
23 80 feet. (Vol. I Fig. 5). Golder reviewed the historical groundwater elevation (Vol. I App. C) and
24

25 ⁸ Given the groundwater monitoring system depicted in Figures 1 and 2, Appellants' complaint
26 regarding the purported insufficiency of four groundwater wells (CDF Br. 15:1-2, 16:14-15) lacks
27 any basis in the record and underscores that they either never read the entirety of the application
28 materials or intentionally misrepresent those documents.

⁹ Contrary to Appellants' contention (CDF Br. 15:8-10), the angled borings for the monitoring
wells under the sumps will be only 150 feet long, not extend all the way to the four corners of the
562-acre site. (GPEP Fig. 2 and 3).

1 evaluated the groundwater level in relation to annual rainfall. (Vol. I Fig. 8). Appendix D
2 contains the slug test data showing, among other things, the saturated thickness of the aquifer at
3 each existing monitoring well and providing the information necessary to calculate an estimate of
4 hydraulic conductivity at the site. (ROD p. 10). Golder also calculated the groundwater flow
5 gradient, rate and direction (towards the southwest) based upon preparation of a groundwater
6 contour map. (ROD at p. 10; Vol. I, Fig. 10). As a result, substantial evidence supported
7 NDEP's conclusion that Recology had complied with NAC 444.7483(5)(a).

8 The groundwater monitoring plan also contains the proper suite of constituents to include
9 in the groundwater testing. NAC 444.7487 identifies the constituents that are required to be
10 monitored. The monitoring plan specifically cites to this provision when discussing the water
11 quality parameters to be tested. (Monitoring Plan p. 10). Appellants criticize the monitoring plan
12 because it does not include testing "for other known chemical and/or pharmacological
13 constituents." (CDF Op. Br. at 6:17-7:2, 16:16-21). In making this argument, not only do
14 Appellants seek to hold the Jungo project to different standards than the regulations require, but
15 Appellants fail to understand that the constituents identified in NAC 444.7487 are indicators of
16 leachate contamination. Because testing will occur for the most likely contaminants to be found
17 in leachate, testing for a host of other constituents is redundant and unnecessary.

18 The 30-year post-closure groundwater monitoring likewise meets the regulatory standard.
19 NAC 444.6894. NAC 444.7488 requires that monitoring continue for the closure and post-
20 closure period. NDEP retains authority to increase the post-closure period if, at the end of the 30-
21 year period, "the lengthened period is necessary to protect public health and safety and the
22 environment." NAC 444.6894(2)(b). By demanding a longer post-closure period, Appellants
23 again ask the SEC to engage in ad hoc rulemaking. Likewise, if Appellants think that California
24 law provides greater financial protections than does Nevada's (CDF Br. at 17:13-16), they can
25 lobby the Nevada legislature for a change in the law. NDEP properly enforced the requirement
26 for post-closure financial assurances. NAC 444.685 et seq.

27 Additionally, Recology submitted a Groundwater Protection Evaluation Plan (GPEP)
28 demonstrating to NDEP that the environmental controls integrated into the design would: (1)

1 provide early confirmation during the initial site operations that the constructed liner system is
2 adequately preventing migration of waste constituents to groundwater and (2) evaluate the
3 effectiveness of the liner system and implement modifications as appropriate to ensure adequate
4 groundwater protection through the operational life and postclosure period of the landfill. (GPEP
5 at p. 1). The GPEP also anticipated that two comprehensive landfill performance reviews would
6 be completed (at 10 and 25 years)¹⁰ to confirm the effectiveness of the existing landfill design and
7 operations plans, and if necessary, make appropriate changes to ensure protection of groundwater.
8 (Id. at p. 10 and App. A thereto). Since all regulatory requirements for protection of groundwater
9 have been met, there are no grounds to disturb NDEP's issuance of the permit.

10 **C. NDEP Properly Exercised its Discretion to Approve the Location of the Landfill in**
11 **Relation to Surface Water**

12 The project location and design address all of Appellants' concerns regarding the effect of
13 rain events on the geography and topography of the site. As a preliminary matter, the nearest
14 body of water is fourteen miles away (ROD p. 2), so the distance to surface water far surpasses
15 the 1,000 feet prescribed in NAC 444.678(9). Moreover, Appellants concede that the site is not
16 within a 100-year floodplain (CDF Br. at 7:21-22; Cook Br. at p. 4),¹¹ so the location restrictions
17 described in NAC 444.6785 are inapplicable. Appellants' concern about all-weather access and
18 ponding of water are all addressed by the landfill design.

19 **1. The Design Provides for All-Weather Access**

20 According to Cook, because there is periodic ponding on site during the occasional rain
21 storm, the site will become inundated and impassable. (Cook Op. Br. p. 2). NAC 444.678(1)
22 requires that a Class I landfill "be easily accessible in all kinds of weather to all vehicles expected
23

24 ¹⁰ Contrary to Appellants' erroneous argument (CDF Br. 14:2-4, 16:2-3), the groundwater
25 monitoring program is ongoing throughout the life of the landfill on a quarterly and then semi-
26 annual basis. The 10 and 25-year events represent comprehensive performance reviews that will
occur at the end of certain construction sequences. (GPEP at p. 10).

27 ¹¹ That Cook thinks FEMA is wrong and the Jungo site should be designated as a 100-year
28 floodplain notwithstanding its 14-mile distance from the nearest surface water (Cook Op. Br. at p.
4) is irrelevant. NDEP is only required to comply with existing law, not what Appellants think
the law should be.

1 to use it.” The Report of Design specifically states that “[t]he site design includes all-weather
2 access to the landfill including an access road surfaced with aggregate. The rail unloading area
3 will include a paved area and areas surfaced with aggregate to provide dust control and all-
4 weather access.” (ROD p. 2). In other words, the design recognizes that the native soils can be
5 difficult to access when wet and, as a result, contemplates the use of paving and aggregate.

6 **2. The Design Provides for Run-on/Run-off Control**

7 NDEP properly approved the landfill features designed to address rain events. Without
8 any engineering support, Cook states in conclusory fashion that the berm, drainage ditches and
9 other features to control run-on and run-off “won’t work.” (Cook Op. Br. p. 2). To support this
10 erroneous position, the only “evidence” to which Cook and the other Appellants point are photos
11 that purportedly depict ponding of water at the site. Rather than show an abuse of discretion by
12 NDEP, these photos actually support NDEP’s approved design.

13 The project was designed in anticipation of the precise water events depicted in the photos
14 provided by the Appellants. The Report of Design specifically states:

15 In the event of intense storms, it is possible that localized depressions may fill and
16 then sheet flow to the next depressions located to the north or west. This is
17 consistent with the United States Department of Agriculture (USDA) Natural
Resources Conservation Service (NRCS) 2007, which estimates that ponding may
occur locally *to depths of 6 to 12 inches.*”

18 (ROD p. 4) (emphasis added). The Berger report cited in the ROD and upon which the
19 Appellants rely likewise anticipated such ponding.¹² (CDF Ex. 4 at p. 12).

22 ¹² That what Appellants contend are “brachiopods” may inhabit the soils of the Desert Valley in
23 anticipation of such rain events is irrelevant. (Cook Op. Br. at pp. 5-6; CDF Br. at 8:25-9:8). As
24 a preliminary matter, Appellants concede that they have no expertise as biologists or hydrologists
25 and lack the qualifications to properly identify small invertebrates or opine on matters involving
26 such invertebrates. (Schlarb and Cook comments p. 3). Secondly, there is no dispute that
27 water periodically ponds on the site, and it is for that reason that the site design includes a
28 perimeter berm, perimeter channel and retention basins to control the run-on and run-off.
Periodic ponding, however, does not create saturated soils, as Appellants erroneously contend
(CDF Br. at 9:3-6), because the ponded water from these periodic events evaporates and
percolates into the soil. There is no permanent surface water that would saturate the surface soils,
and on-site groundwater monitoring well development confirmed this fact. (April 2011 Plan of
Operations at p. 5; ROD p. 7).

1 The run-on/run-off controls for the Jungo site were designed specifically to account for
2 these known ponding events. (App. J to ROD). Depending on the surface elevation, the
3 perimeter berm is 4-5 feet high and completely surrounds the project site. (Vol. III, Drawing 7).
4 The perimeter berm elevation stands 17 feet above the topographic low point of the Desert Valley
5 on the south side of the railroad tracks. (See Fig. 1, Ex. 1 hereto).¹³ The perimeter channel
6 surrounds the site just inside of the berm. (Id.). As required by NAC 444.6885(2), the project
7 design will control the 24-hour 25-year storm event. (App. J to ROD). Even water from 100-
8 year and 1000-year ponding events would not reach the top of the perimeter berm. (Figs. 2 and 3,
9 Exs. 2 and 3 hereto).

10 Run-off from active operations will be directed to interior basins that will be pumped and
11 discharged to a lined basin for temporary storage. (App. J to ROD). Run-off from inactive areas
12 will be directed to the perimeter channel that will discharge water to a basin in the southwest
13 corner of the site and will also serve to store run-off. (Id.). The combined perimeter channel and
14 unlined basin with one foot of freeboard can accommodate 44 acre feet of water, more than twice
15 the run-off from a 25-year storm event and therefore twice the regulatory standard. (Id.). As a
16 result, the proposed basins have sufficient capacity to accommodate two 25-year, 24-hour storms
17 back-to-back without discharging. (Id.; see also Vol. III, Drawing 7).

18 Appellants' arguments are based upon the erroneous assumption that the berms will be
19 breached. (CDF Br. at 8:3-18). The very photos upon which the Appellants rely, however,
20 confirm that the run-on/run-off controls at the project site will be effective. The photos
21 demonstrate that the railroad berm remains above the ponded water during storm events and
22 prevents the water from infiltrating from one side of the berm to the other. (Cook Exs. A, D, E,
23 F). Likewise, the railroad berm demonstrates the effectiveness of aggregate to allow for all-
24 weather access because the railroad tracks remain operational with storm events. (Cook Ex. E).

25 _____
26 ¹³ Although the three figures attached hereto as Exhibit 1-3 were not part of the administrative
27 record, they were created by Golder Associates, and Recology provides them in rebuttal to the
28 unauthorized exhibits submitted by Hannum and CDF that purport to show flooding at the Jungo
site. (CDF and Hannum Exs. 12(a)-(d)). As demonstrated by Figures 1-3 attached hereto, the
random flood elevations chosen in the CDF figures have no bearing in reality because they far
exceed even a 1000-year flooding event.

1 As a result, the photos provided by Appellants actually support NDEP's approval of the run-
2 on/run-off features of the landfill design.

3 **D. NDEP Properly Exercised its Discretion to Approve the Landfill Gas Control System**

4 The landfill gas control system approved by NDEP meets the regulatory requirements.
5 The landfill gas system consists of horizontal and vertical gas wells, HDPE collection and header
6 pipes and condensate sumps. (ROD p. 16; Vol. I, Fig. 15; Vol. II, Drawing 06; Vol. III, App. D.
7 Figures 3-4). Although initially the landfill gas will be controlled with flares, a waste-to-energy
8 system may be employed to dispose of gas and generate electricity if feasible. (Id.).

9 Because of the arid climate, it may take some time before sufficient landfill gas is
10 generated to support flaring. (Id.). As a further groundwater protective measure, perforated gas
11 extraction pipes will be incorporated into the LCRS layer to allow gas withdrawal from above the
12 liner system. (ROD p. 17). Landfill gas monitoring is described in the Monitoring Plan at p. 15.
13 The landfill gas control network will remain in place post-closure, as required by NAC 444.6894.

14 **E. NDEP Properly Exercised its Discretion to Approve the Use of Native Soils**

15 Appellants' contentions that the on-site soils are inadequate for liner construction or
16 landfill cover are unsupported by the record. The Report of Design addresses the adequacy of the
17 soils to support the landfill and adjusts for any limitations in the native soils for use in the liner:

18 The existing site soils will not meet the permeability requirements for the low-
19 permeability soil liner. Therefore, either suitable clay soils will be imported, or
20 the on-site soils will be admixed with bentonite to produce a soil liner material
21 with [appropriate] permeability. . . In addition, construction quality assurance
22 testing requirements will be established to verify the permeability requirements
23 are achieved.

22 (ROD p. 15; see also ROD p. 8; App. A, B, E and F). Soil borings were performed and samples
23 analyzed for moisture-density, grain size distribution, consolidation and other geotechnical
24 parameters. (Id.). Appendix B to the ROD includes a summary of laboratory tests that were
25 completed as part of the initial site characterization.

26 Ignoring the on-site geotechnical evaluation performed of the actual soils that will be used
27 for construction, Appellants point to a report prepared by NRCS that provides only a general
28 overview of the Boton-Playas and Playas soil types associated with the Desert Valley location.

1 (CDF Ex. 10). The borings of the actual soils is a better indicator of the soil characteristics than a
2 generalized soil resource report. Indeed, the NRCS report itself emphasizes, “Although soil
3 survey information can be used for general . . . planning, *onsite investigation is needed to*
4 *supplement this information* in some cases.” (CDF Ex. 10 at p.2) (emphasis added). Such onsite
5 investigation is precisely what was done by Recology’s consultant Golder Associates, the results
6 of which are included in the Appendixes to the Report of Design. (App. A and B). Moreover, to
7 ensure that the underlying soils are able to support the height and weight of the landfill, additional
8 soil borings will be completed prior to construction of the base containment system and, if
9 necessary, the design modified. (ROD p. 8). The design was certified by a registered
10 Professional Engineer, and Appellants have not presented any engineering evidence to call into
11 question NDEP’s approval of the design plan. Instead, Appellants rely only on what they
12 concede is “anecdotal evidence” (CDF Br. at 9:14)

13 Appellants’ challenge to the adequacy of the soils for use as cover is also baseless.
14 NAC 444.688 outlines the requirements for daily and intermediate cover, and the landfill design
15 and operations plans comply with these requirements. For example, Section 9.0 of the Plan of
16 Operations includes a list of materials that will be evaluated for alternative daily cover (“ADC”)
17 suitability beyond the use of native soils alone. In compliance with NAC 444.688, Section 9.0
18 also specifies the requisite minimum 12-inch intermediate cover. The integrity of the cover will
19 be routinely inspected, and erosion rills and cracks deeper than 3 inches and depressions that do
20 not provide positive drainage will be repaired promptly. (Id.).

21 NAC 444.6891 contains the requirements for design and construction of the final cover
22 system, which include an equal-to or lower permeability than the bottom liner to minimize
23 infiltration and a six-inch soil cover that supports plants (or an alternative erosion layer approved
24 by NDEP that minimizes wind and water erosion) and proper grading. The final cover at the
25 Jungo site will have, from bottom to top, a one-foot minimum of foundation soil, a 60-mil HDPE
26 geomembrane, geocomposite and 2-feet of vegetative soil. (Vol. II, Drawing 08). Appendix L
27 contains the revegetation plan. Drawings 05(A)-(D) depict the final cover grading plan.

28 ///

1 The Jungo final cover design far exceeds the regulatory requirements, and none of
2 Appellants' conjecture regarding the adequacy of the soils alters this conclusion. See NAC
3 444.6891. Appellants make a number of tangential and unsupported arguments related to wind
4 strength and direction that have no bearing upon NDEP's compliance with the Nevada
5 Administrative Code. (Cook Br. pp. 4-5; CDF Br. 11:23-24). The regulations require only that
6 wind and water erosion be minimized. NAC 444.4891(1)(c). Appendix H to the Report of
7 Design has water and wind erosion calculations from the final cover. Nothing presented by
8 Appellants contradicts these calculations.

9 **F. NDEP Properly Exercised its Discretion to Account for Seismic Activity in**
10 **Approving the Landfill**

11 The entirety of Appellants' contentions regarding alleged seismic activity is based upon
12 documents (CDF Exs. 22- 23, 25-27) and speculative arguments that were never presented to
13 NDEP and therefore must stricken from consideration by the Commission. Appellants cannot
14 complain that NDEP did not consider something on which Appellants themselves failed to
15 provide comments. Even if the Commission were to consider these arguments, the record amply
16 demonstrates that the design approved by NDEP accounts for major seismic events and can
17 therefore adequately handle any alleged "low-magnitude events" caused by geothermal activity
18 alleged by Appellants. (CDF Br. at 14:1-22).

19 A Class I landfill can be located in a seismic impact zone if "all structures for
20 containment, including liners, systems for the collection of leachate and systems for the control of
21 surface water, are designed to resist the maximum horizontal acceleration in lithified earth
22 material for the site." NAC 444.6793. Using a 2008 seismic hazard mapping database, the
23 design bedrock peak ground acceleration at the Jungo site is estimated to be 0.25g. (ROD p. 11).
24 The landfill containment systems and environmental controls are designed to withstand an
25 earthquake event resulting in such peak ground acceleration without compromising any integrity.
26 (Id. at pp. 11, 20-21). Appendix K to the ROD includes a discussion of the seismic impact
27 evaluations, which conclude that seismically induced displacements will be 10 times lower than
28 the maximum allowable and that no liquefaction will occur.

1 The only “evidence” presented by Appellants regarding alleged liquification is a public
2 comment by an individual named Charles Schlarb who himself relies upon “brief conversations”
3 with “a couple of [unidentified] geophysicists” introduced to him by a friend. (CDF Ex. 28).
4 Such speculative hearsay within hearsay within hearsay does not overcome the substantial
5 evidence supporting NDEP’s approval of the design plan. Even if the Commission were to
6 consider the extra-record documents submitted by Appellants to support their speculation that a
7 geothermal power plant will cause increased seismic activity, those documents still are unreliable
8 and irrelevant. An article suggesting that “fracking” allegedly causes earthquakes (Ex. 26) or that
9 geothermal operations may cause low-magnitude earthquakes (Ex. 27), has no bearing upon
10 whether a 50 MW geothermal power plant will induce a seismic event that exceeds the 0.25g
11 peak ground acceleration that the landfill was designed to withstand. If the landfill liner and
12 environmental controls can withstand 0.25g peak ground acceleration without being
13 compromised, they can certainly stand up to the “microquakes” about which Appellants are
14 concerned. As a result, Appellants’ arguments do not alter the conclusion that NDEP relied on
15 substantial evidence when approving the landfill in a seismic impact zone.

16 **CONCLUSION**

17 NDEP properly exercised its discretion to issue the solid waste operating permit for the
18 Jungo disposal site. The approved design, operations and monitoring plans meet or exceed the
19 regulatory requirements and consequently are protective of health, safety and the environment.
20 Substantial evidence supports NDEP’s decision.

21 Rather than point to any abuse of discretion, Appellants instead take issue with the
22 regulations themselves. Essentially, Appellants are asking the Commission and NDEP to impose
23 additional requirements on the Jungo disposal site that are not found in the laws or regulations
24 that govern municipal solid waste landfills. The very purpose of having a regulatory framework
25 for solid waste disposal is to ensure uniformity among all similarly-situated applicants. As such,
26 Recology can be held to no different standard than other operators of municipal solid waste
27 landfills in Nevada.

28 ///

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

To the extent that Appellants do not like Nevada's laws, they must present their complaints to Nevada's Legislature and to this Commission when it is sitting in its rulemaking capacity. Appellants' request that the Commission employ an ad-hoc regulatory scheme for a single applicant must be rejected. Because substantial evidence exists in the record to demonstrate that the Jungo permit application meets or exceeds regulatory requirements, there are no grounds to overturn NDEP's issuance of the permit.

Pursuant to NRS 239B.030, the undersigned hereby affirms this document does not contain the social security number of any person.

Dated: May 2, 2012

McDonald Carano Wilson LLP



JOHN FRANKOVICH
DEBBIE LEONARD
100 West Liberty Street, 10th Floor
P.O. Box 2670
Reno, NV 89505-2670
(775) 788-2000

Attorneys for Real Party in Interest/Intervenor
RECOLOGY, INC.

1 **CERTIFICATE OF SERVICE**

2 I hereby certify, under penalty of perjury, that I am an employee of McDonald Carano
3 Wilson LLP, and that on this 2nd day of May, 2012, I provided a copy of the **RECOLOGY'S**
4 **RESPONDING BRIEF** via first-class United States mail, with a courtesy copy via Email, to the
5 following:

6 Bob Dolan
7 Massey Mayo
8 Dolan Law LLC
9 311 S. Bridge Street, Suite E
10 Winnemucca, Nevada 89445
11 bobdolanlaw@sbcglobal.net

12 Richard Cook
13 4320 Paradise Ranchos Dr.
14 Winnemucca, NV 89445
15 richard_cook99@yahoo.com

16 Cassandra Joseph
17 Attorney General's Office
18 100 N. Carson Street
19 Carson City, Nevada 89701
20 cjoseph@ag.nv.gov

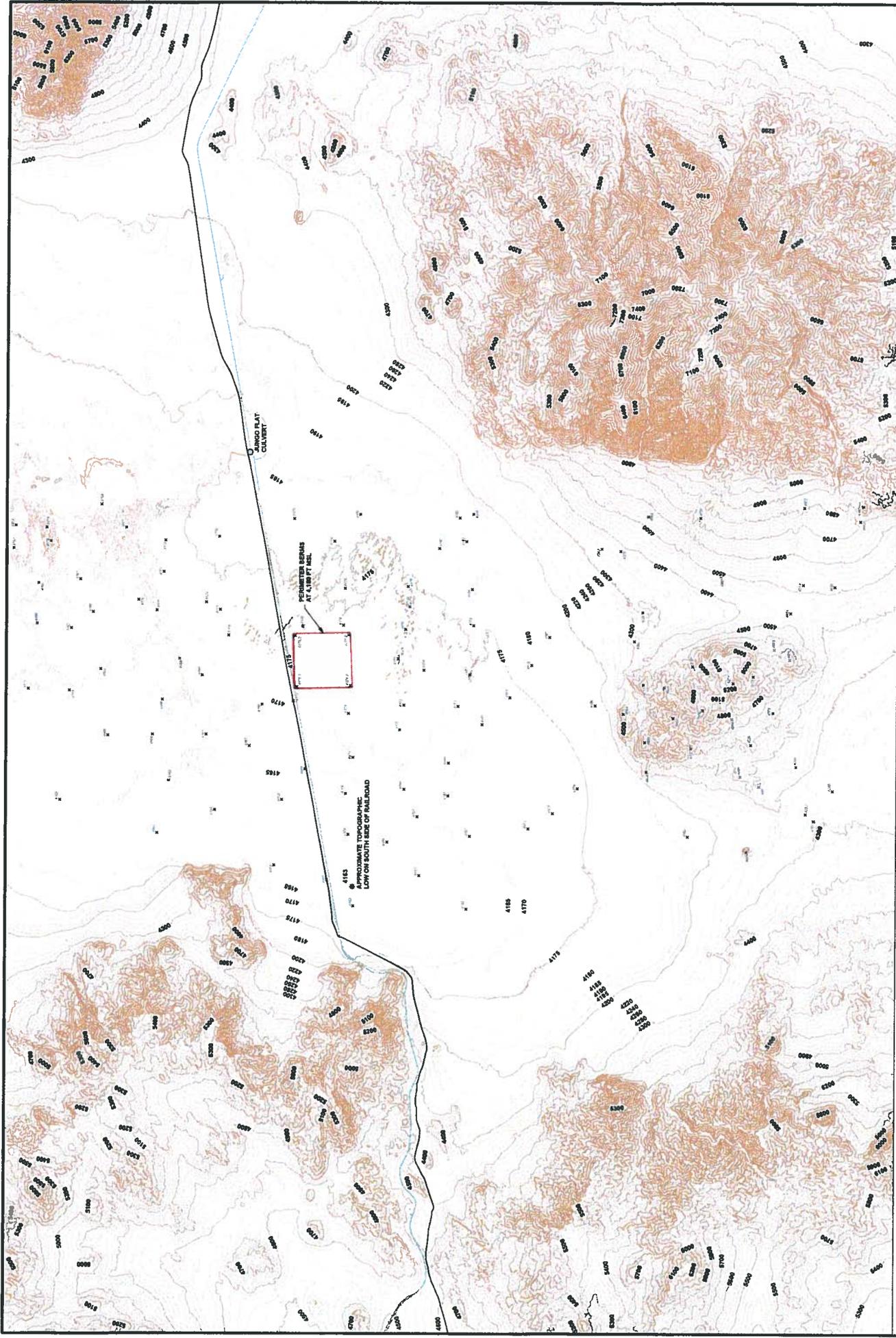
21
22
23
24
25
26
27
28

Pamela Miller

MCDONALD-CARANO-WILSON
100 WEST LIBERTY STREET, 10TH FLOOR • RENO, NEVADA 89501
P.O. BOX 2670 • RENO, NEVADA 89503-2670
PHONE: 775-788-2000 • FAX: 775-788-2020

EXHIBIT 1

EXHIBIT 1



LEGEND

- 1:50,000 Scale (1984 Edition)
- Contour Interval: 20 Feet
- Spot Elevation Contour: 5 Feet
- Minimum Contour: 5 Feet

NOTES

Topographic Map of the Southern Jungo Basin, Humboldt County, California, prepared by Golden Associates, Inc., for the Humboldt County Planning and Public Works Department, 1984. The map is based on the 1:50,000 Scale (1984 Edition) of the United States Geological Survey (USGS) Topographic Map (7.5 Minute Series) (1:50,000 Scale) (1984 Edition) of the Southern Jungo Basin, Humboldt County, California.

JUNGO ROAD LANDFILL
HUMBOLDT CO., CA

SOUTHERN JUNGO BASIN TOPOGRAPHIC MAP

PROJECT No. 13-179
Humboldt County, CA

Golden Associates
Humboldt County, CA

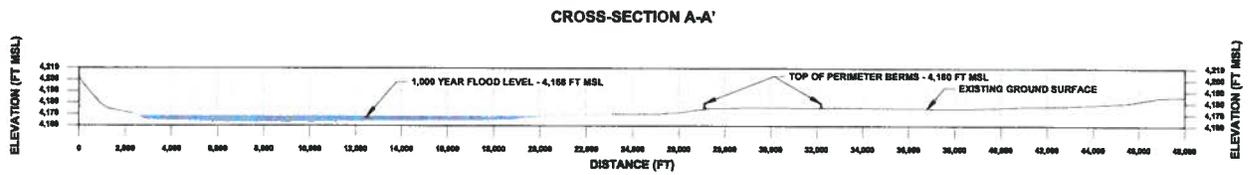
Scale: 1" = 1,000 Feet

EXHIBIT 2

EXHIBIT 2

EXHIBIT 3

EXHIBIT 3



SCALE:
 VERTICAL - 1 INCH TO 40 FEET
 HORIZONTAL - 1 INCH TO 2,000 FT

		SCALE AS SHOWN	TITLE
		DATE 04/29/12	CROSS SECTION
PREP BY	FIGURE 3 - VSEC	DRAWN	
PROJECT NO. D63-7073	REV. 0	CHECKED	
		DESIGNED	
		REVIEWED	
JUNGO ROAD LANDFILL			FILE NO. 3