

To:

Jon Taylor PE CEM  
Nevada Division of Environmental Protection  
Bureau of Waste Management  
Solid Waste Facilities Branch  
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Dear Mr. Taylor,

I am writing to you to express my strong opposition of your intent to issue a solid waste permit for the proposed Jungo landfill.

My name is Charles Schlarb. I have lived in Winnemucca, NV for over a decade. I was employed by the federal government for 30 years and have extensive experience in civil engineering, cadastral surveys, contract preparation & administration and NEPA interdisciplinary planning. This work has enabled me to acquire a working knowledge of a wide range of scientific and technical fields of study. It is because of this background that I feel it necessary to point out a number of inconsistencies, falsehoods and irregularities in the proposal submitted by Jungo Land & Investments, Inc. (JLII) and the Nevada Division of Environmental Protection (NDEP)'s pending approval of said project which is based on JLII's submittals.

The following are my main concerns:

**1. Aquifer contamination & loss of resource to the people of the county and state.**

Nevada is the driest state in the union. It gets less rainfall than any other state on the continent. For this reason alone, the project should have been rejected at the onset as too potentially damaging to a limited natural reserve that is irreplaceable. Any loss of which is unforgivable, especially if condoned by a regulating agency. As a matter of fact, it is specifically mandated by law that such an action not be taken. There is no proven technology that will prevent aquifer contamination, regardless of the assurances from JLII & Golder Associates. The National Environmental Protection Agency (NEPA) still maintains that all landfill liners will eventually fail.

The US EPA Solid Waste Disposal Criteria (August 30, 1988a) stated, *"First, even the best liner and leachate collection system will ultimately fail due to natural deterioration, and recent improvements in MSWLF (municipal solid waste landfill) containment technologies suggest that releases may be delayed by many decades at some landfills."*

The US EPA Criteria for Municipal Solid Waste Landfills (July 1988b) stated,

*"Once the unit is closed, the bottom layer of the landfill will deteriorate over time and, consequently, will not prevent leachate transport out of the unit."*

This failure will pollute the aquifer. That is why a Nevada statute was enacted in the first place. Follow the law. Reject this proposal on this basis. There are no mitigation measures that are 100% effective, especially those that have been proposed by JLII.

**2. NDEP accepting of false interpretation of published science re: Desert Valley, i.e. Predominant wind direction and isolation of aquifer.**

In 1995 the United States Geological Survey (USGS) conducted an investigation in Desert Valley of which you are aware. A decade later JLII has tried to use this study to further their financial goals by misquoting it and for reasons unknown NDEP has let them. The report is *WRIR 95-4119*, it was conducted by David L. Berger. In this report, Mr. Berger states unequivocally that the predominant wind direction in the valley is from the west.

*"An active dune field, in the southeastern part of the study area (pl. 1A), covers about 12,000 acres of the valley floor. (An active dune field is one in which the dune ridges slowly migrate in the direction of the prevailing wind.) This section of the dune field in Desert Valley is the trailing edge of a much larger dune field that totals about 31,000 acres, extends about 28 mi to the east, and terminates in Paradise Valley (fig. 1)." - Page 3 WRIR 95-4119*

Unless a reader intentionally misconstrues the author's intent, this is proof that JLII assertions of the exact opposite are false. So, the dunes start in Desert Valley (trailing edge) and terminate in Paradise Valley. The winds blow west to east. This statement by Berger is backed up by National Weather Service climate data regardless of what citations JLII uses in their submissions. If you are still unsure just ask NDOT where the sand dunes come from along Highway 95 between Desert Valley and Paradise Valley, they'll set you straight.

JLII and Golder have also stated in handouts and presentations that the aquifer under Desert Valley is isolated or "perched", unconnected to other hydrologic basins. This is false as well. To again quote Mr. Berger:

*"The components of the ground-water budget for the aquifer system beneath the study area were estimated using empirical techniques and refined using a ground-water flow model. Under predevelopment conditions (pre- 1962), the total flow through the aquifer system*

*beneath the study area was about 11,000 acre-feet per year (acre-ft/yr). The flow components are (1) total inflow that includes about 7,300 acre-ft/yr of recharge from precipitation, about 2,700 acre-ft/yr of infiltration beneath ephemeral rivers that traverse the northern part of the study area, and about 1,100 acre-ft/yr of subsurface inflow from the Quinn River and Kings River Valleys, and (2) total outflow that includes about 9,100 acre-ft/yr discharge by evapotranspiration and about 2,100 acre-ft/yr subsurface outflow."* - Page 1 Abstract WRIR 95-4119

2100 acre feet per year subsurface outflow doesn't sound like an isolated aquifer. If pressed, JLII and Golder will first claim that no pollution of the aquifer will take place and even if it does then the aquifer is isolated, neither of which is the truth. By misquoting a published study or deliberately misinterpreting it, they have falsified data needed by NDEP to make an informed decision about the proposal. For these reasons, NDEP should reject this project.

### **3. Earthquake hazard**

Although no major seismic activity has been recorded in Desert Valley recently the potential for such is real. The means for mitigation of an event by the design put forth by JLII and Golder are based upon calculations which were in turn based upon assumptions. The underlying stratigraphy in Desert Valley is "complex" and "lenticular" in nature, the depths of which could be 500 - 1000s of feet, again from WRIR 95-4119. Without proper analysis of the nature of these layers, all calculations and assumptions are basically worthless. The typical cross-section shown by Golder is simplistic at best or a deliberate attempt to mislead. The well logs indicate a much more varied subsurface picture and the reality of the situation. These logs only depict the first 100 feet. What lies below is unknown. For this reason, the project should be rejected by NDEP.

### **4. Soils Report indicates it's not a feasible location**

See attachment (PDF). For the reasons outlined in the soils report from the National Resource Conservation Service, this permit should be denied by NDEP.

### **5. Construction Viability**

At the start of the permitting process, attention was called to the fact that the soil type present on site was not conducive to the use intended. Apparently, this voice of caution was ignored. The primary reason for concern is poor drainage. In the winter, the silts and clays are either frozen solid or suspended in water. This ponding and saturation can last for days or weeks, perhaps months, depending on the weather. All work will be stopped until the soils

dry out. Further, there will be subterranean pockets of ice and/or water after the surface is apparently free of liquids. Aside from drainage, the secondary problem is the structure of the soils themselves. These soils are found on the basin bottom because of their physical characteristics. Their natural state of repose is nearly horizontal. JLII's first proposal was to construct fill slopes at a ratio of 3 to 1. The latest proposal is a 4 to 1 ratio. Next it might be 5 or 6 to 1. 10 to 1 might work, but then, a much larger working area would be required. The compaction of material is problematic. In order for the design to function properly, the soil layers must be compacted in lifts of 6" or so. The material at the site doesn't have the requisite non-soil, i.e., gravel component for stable cohesion. The soils are all very fine powder with an estimated <15% river rock content. River rock is rounded, so, there aren't any fractured faces (angular planes) that are needed for binding. As a gravel component for compaction, river rock is rated poor, even if there were enough of it to use, which there isn't. So, how will the fill slopes and soil layer lifts be made stable for decades? The suggestion that use of an "alternative daily cover" (ADC), specifically sewer sludge, would alleviate this problem is specious. The Union Pacific Railroad solved the problem by importing tons of material from off-site and at great expense. In my experience, JLII's design just will not work at this location. Where are the compaction tests showing the native soils augmented by whatever ADC used is indeed a workable solution? There aren't any. These assertions are based upon my experience and knowledge of this area specifically and other areas similar in nature throughout northern Nevada. Most people who have lived in this area for any length of time know not to drive off the main roads in the winter time. The possibility of sinking up to your undercarriage is quite real. In hot weather the same area can be composed of what some call "bug dust". As the name implies, it is a fine powder not unlike that which you could apply to a pet for the treatment of parasites. This is not a permit that NDEP should issue or endorse.

## **6. Recology business practices**

Recology (NorCal Waste) past problems with bribery

10:44 a.m. December 28, 2007

VENTURA - A state appeals court upheld a \$10 million award in a lawsuit that said a trash company and a billboard firm bribed a San Bernardino County official in the 1990s to get contracts worth millions of dollars. The 2nd District Court of Appeal on Thursday upheld the judgment made three years ago in the county's suit against former Chief Administrative Officer James Hlawek and officials from the Norcal Waste Systems and the Oakridge billboard company.

"Their criminal conduct did not involve a single act, but rather a

pattern of deceit in a well-formulated and complex scheme that required continuous manipulation of the county over an extended period of time," appeals Justice Steven Z. Perren wrote.

Hlawek, Norcal Vice President Kenneth James Walsh and Harry Mays, a former county administrative officer who became a Norcal consultant, were found liable in 2004 for fraud and other improprieties. A Ventura judge ordered them to pay nearly \$10 million in damages and restitution. Hlawek, Walsh and Mays also pleaded guilty to federal criminal charges. Former county Supervisor Jerry Eaves, who also was accused of taking bribes from the billboard firm, pleaded guilty in 2004 to violating state conflict-of-interest laws. Billboard company owner William McCook was acquitted of federal charges and the state court case against him was dismissed.

<http://www.signonsandiego.com/news/state/20071228-1044-ca-countycorruption.html>

This is the kind of company you are dealing with. The same pattern of behavior illustrated here is repeated in their attempt to influence NDEP with false claims of the Berger study and dubious claims of a functional design.

### **7. Setting of precedent**

If, contrary to the evidence I have presented, NDEP does issue a permit, it will set a precedent that other companies will follow in this county and across the state. Please don't let that happen. I am hopeful that you can now see that this would be a terrible mistake that will have far reaching consequences.

### **8. Environmental Analysis (EA)**

In the future and perhaps in this case, an extensive environmental analysis should be required to fully assess the ramifications of a construction project of this magnitude. Knowing the scientifically predictive outcome of any action will be far more beneficial to the public than hoping for the best. It is my belief that a comprehensive EA would definitely indicate that the risks are too great to let this project move forward at the proposed site or any other site with similar soils and geology.

To summarize, the protection of the aquifer under Desert Valley is of paramount importance and no mitigation in design or construction is sufficient to ensure that the groundwater will be unaffected. This arid county and state cannot afford to gamble away it's precious natural resources.

