

# Blue Diamond Hill “Development” Project - Sustainable or Unsustainable?

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## 1. Introduction

A specific and somewhat controversial “real estate development” project is examined herein to begin a top level assessment of the sustainability of this and similar human endeavors.

### 1.1 Basis for Sustainable Living – The Universe Story

Over seven (7) billion people are now populating the planet.

Recent DNA sequencing confirms that we humans all have descended from a common band of homo sapiens that left their place of origin in eastern Africa about 50-100,000 years ago and migrated slowly to now occupy all habitable niches on the planet<sup>1</sup>.

Lest we forget, we humans are not alone. In addition to our species, homo sapiens, there are over 1.9 million<sup>2</sup> other species currently living on planet earth with us that have been documented - with an estimated 8 million still undocumented. For each species living today, the fossil record indicates there are 1000 species that have gone extinct<sup>3</sup> over the 3.8 billion years life has been evolving on our 4.56 billion year old planet that circles our Sun, one of a hundred billion stars in our Milky Way galaxy that in turn is one of the hundred billion galaxies the Hubble Space Telescope and other human “eyes” can now see in our 13.7 billion year-old Universe.

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<sup>1</sup> Wells, Spencer, “The Journey of Man: A Genetic Odyssey” Random House, 2003.

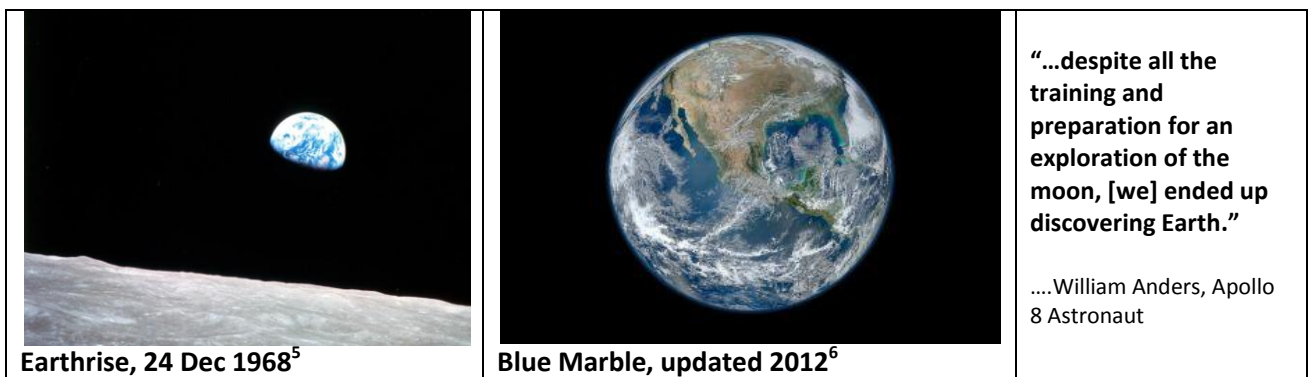
<sup>2</sup> Toni O'Loughlin, “Number of Earth's species known to scientists rises to 1.9 million” Sydney, [guardian.co.uk](http://www.guardian.co.uk), September 2009. <http://www.guardian.co.uk/environment/2009/sep/29/number-of-living-species>

<sup>3</sup> Newman, M. E. J. and Roberts, B.W., “Mass extinction: Evolution and the effects of external influences on unfit species,” Cornell Theory Center, Cornell University, Ithaca, NY, 1993.

To be blunt, because of our current unsustainable behavior, we 7 billion homo sapiens are rapidly trashing our planet and squandering the finite natural resources contained on our Spaceship Earth – resources that are required by future generations to experience the joys & sorrows of life – resources that are required for homo sapiens to continue to expand their consciousness just as we have.

Despite the vivid and soothing imagery of poets and story tellers, our Earth is neither flat nor infinite – nor does it rest on the back of a tortoise – nor does the Sun fly across the daytime sky in a chariot. We have stepped off the planet and looked back. The photographic view of our Earth from outer space has undeniably changed our worldview.

It was Christmas eve, 1968 that three wise men left their home to travel outward some 238,855 miles (384,400 km) and return with gifts to celebrate the birth of a new paradigm<sup>4</sup>. They brought to us, the gift of an Earthrise; the gift of a beautiful Blue Marble seemingly alone but gravitationally suspended in the vast web of an expanding Universe; and the spiritual gift of awe, wonder and gratitude for our home called Earth.



If we drive out of the city to the edge of a remaining wilderness, step out of our car, take a deep calming breath, and begin walking through the lush green grass and scattered wild flowers of a meadow, or along a trail sheltered from the rain by the canopy of an old growth forest, or ascend a rocky switchback path above tree line through the Alpine tundra<sup>7</sup> toward the top of 14,000 ft mountain, or walk amidst the sage, cholla cactus<sup>8</sup>, creosote bushes, and belly flowers of the desert we can “see” the diversity of Life more clearly. And then there is the Life within the soil. And then there is the Life within the oceans, and lakes, and streams.

We can then observe that non-human life has evolved to live sustainably in its natural niche.

It is only our species, the fast paced Homo sapiens that has grown in numbers faster than we have grown in wisdom. And as a result, we are in for a rude awakening very soon. Nature’s alarm has been going off for nearly a generation, but we keep hitting the snooze button. It’s past time to push aside our anthropocentric

<sup>4</sup> **Earthrise**, Apollo 8, the first manned mission to the moon, entered lunar orbit on Christmas Eve, Dec. 24, 1968. That evening, the astronauts--Commander Frank Borman, Command Module Pilot Jim Lovell, and Lunar Module Pilot William Anders--held a live broadcast from lunar orbit, in which they showed pictures of the Earth and moon as seen from their spacecraft. Said Lovell, "The vast loneliness is awe-inspiring and it makes you realize just what you have back there on Earth." [http://www.nasa.gov/multimedia/imagegallery/image\\_feature\\_1249.html](http://www.nasa.gov/multimedia/imagegallery/image_feature_1249.html)

<sup>5</sup> The mission was also famous for the iconic "Earthrise" image, snapped by Anders, which would give humankind a new perspective on their home planet. Anders has said that despite all the training and preparation for an exploration of the moon, the astronauts ended up discovering Earth.

<sup>6</sup> NASA's Suomi NPP satellite: [www.nasa.gov/npp](http://www.nasa.gov/npp) ; <http://www.flickr.com/photos/gsf/6760135001/sizes/z/in/photostream/>

<sup>7</sup> Alpine Tundra Ecosystem [http://www.nps.gov/romo/naturescience/alpine\\_tundra\\_ecosystem.htm](http://www.nps.gov/romo/naturescience/alpine_tundra_ecosystem.htm)

<sup>8</sup> [www.desertusa.com/mag99/may/papr/chollas.html](http://www.desertusa.com/mag99/may/papr/chollas.html)

dream world, wake up and resume life in our eco-centric Real World. Our anthropocentric "real world" with its infinite resources and infinite dumping sites is but a dream – simply a variation of a flat earth sitting on the back of a tortoise. The good news is that the Real World we see around us in the Universe today, although not infinite in resources or longevity, nevertheless has created no physical barriers (e.g. laws of physics or chemistry) that prevent us for thriving on planet earth for at least another 500 million years. (That's the time we believe the earth will remain habitable for life as we currently know it.)

But we (especially those of us who live in so called developed countries, specifically us Americans) do have to wake up, shake off the fuzziness of our child-like consumer dream world and as a species grow up. We have yet to move through infancy, to wean ourselves from the breast of Mother Earth, to stop sucking on her ancient one-time-only reserves of stuff to burn for energy, and behave as adults. Adults take responsibility for harvesting their own sustainable energy. That means first understanding the only sustainable source of life-supporting energy comes from the Sun, and then living (making daily choices) in a manner that is consistent with that understanding.

Acting as an adult means taking responsibility for harvesting enough current sunlight to support one's own existence, plus that of one's family, plus that needed to support one's chosen life style. We do have to end the war to control nature – and all wars. Wars are intended to destroy that which we don't understand – that which we fear – that which conflicts with our perceived needs. But we can no longer be at war with our fellow humans OR with our living cousins – because we are totally dependent on all Life for our long term existence.

Present the Guidelines for Sustainable Living. Use the template used at work.

Guideline

Description:

Rationale:

References:

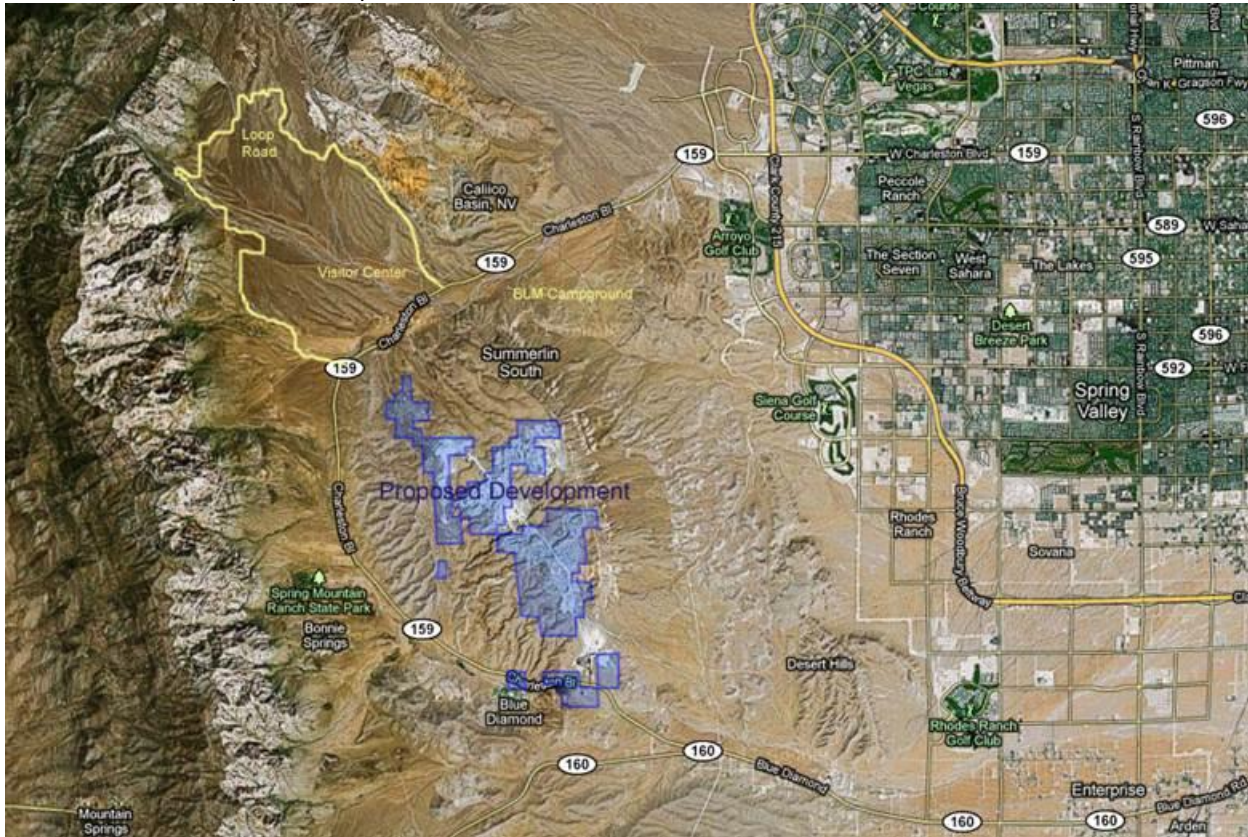
## 1.2 Facts about Blue Diamond Hill Development Project (taken from Court Records)<sup>9</sup>.

GYPSUM RESOURCES, LLC (James Rhodes) owns real property (the "Gypsum Mine Property" or the "Property"), which consists of 2400 acres that abut and, in some locations include, portions of the Red Rock Canyon National

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<sup>9</sup> GYPSUM RESOURCES, LLC v. MASTO, 672 F.Supp.2d 1127 (2009); GYPSUM RESOURCES, LLC, Plaintiff, v. Catherine Cortez MASTO et al., Defendants., No. 2:05-CV-00583-RCL-LRL., United States District Court, D. Nevada, November 24, 2009.

Conservation Area ("RRCNCA").



The area was mined for gypsum in the 1920s and later, and it bears the scars of that activity. The land is located in Clark County approximately twelve miles west of the Las Vegas Strip and is zoned as RU (rural), which allows for the development of residential housing of one home on every two acres<sup>10</sup>.

James Rhodes, on behalf of Gypsum, contracted to purchase the Property in September 2002 for over \$50 million<sup>11</sup>, with the intent to develop it for both residential and commercial uses. The purchase was finalized in March 2003, and the Property was subsequently transferred to Plaintiff.

In 2003, the Gypsum Mine Property drew the attention of local, state, and federal lawmakers, who discussed the possibility of acquiring the property to expand the RRCNCA. However, the Bureau of Land Management ("BLM") did not want to take responsibility for the Gypsum Mine Property due to its damaged condition. Clark County passed a resolution on May 6, 2003, supporting the fair market acquisition of the lands and transfer of title from the County to BLM.

In the meantime, SB 358 was sponsored by State Senators Titus, Wiener, Care, Schneider, and Coffin, see 2003 Nev. Stat. 595, to limit development, subdivision regulation, and rezoning in an area (the "Adjacent Areas") that includes the Gypsum Mine Property. SB 358 was passed by the Nevada Legislature and signed into law by Governor Kenny Guinn on May 19, 2003. It amended several chapters of the Nevada Revised Statutes. Section 11 gave SB 358 an effective date of July 1, 2003. The Act, in relevant part, prohibits local governments from approving a land use application that would increase the number of residential dwelling units allowed by existing zoning regulations within the Adjacent Areas, unless a trade of development credits was involved:

With respect to adjacent lands, a local government:

*1. Shall not, in regulating the use of those lands:*

*(a) Increase the number of residential dwelling units allowed by zoning regulations in existence on the effective date of this act, unless such an increase can be accomplished, within a given area, by the trading*

<sup>10</sup> This would allow up to 1200 residential units – assume 4 people / house = ~5000 people. Current plan is to expand to 14, 500 people.

<sup>11</sup> \$20,000 / acre. Assume mineral rights to mine any remaining gypsum (if there is any left) are included. Satellite images indicate the mine / wall board company are still in operation.



*of development credits or another mechanism that allows a greater number of residential dwelling units to be constructed in that area without increasing the overall density of residential dwelling units in that area;*

SB 358 § 8 (adding this text to Chapter 639, Statutes of Nevada, 1993 Nev. Stat. 2673, as § 4.3(1)(a)). The Act also prohibits the County from establishing new, non-residential zoning districts on the affected lands or expanding the size of existing non-residential zoning districts:

With respect to adjacent lands, a local government:

*1. Shall not, in regulating the use of those lands:*

*. . . .*

*(b) Establish any new nonresidential zoning districts, other than for public facilities; or*

*(c) Expand the size of any nonresidential zoning district in existence on the effective date of this act, other than for public facilities.*

*Id. (adding this text to Chapter 639, Statutes of Nevada, 1993 Nev. Stat. 2673, as § 4.3(1)(b)-(c)).*

Shortly thereafter, on May 21, 2003, the Board adopted CCO 2914, which imposes additional design standards and density restrictions for development within and adjacent to the RRCNCA. Virtually identical to SB 358 in many ways, CCO 2914 states that the County will not accept any land use applications that would (1) increase residential densities unless a trade of development credits is involved, (2) establish new non-residential zoning districts, or (3) expand the size of existing non-residential zoning districts on the affected lands, including Plaintiff's Property

### 1.3 Other Background about Blue Diamond Hill Development

We know Rhodes apparently believes he can make a significant profit on this project because he continues to pursue further development of the land he purchased in 2003. His latest approach is to cloak the development endeavor in the robe of "reclamation." Local residents and friends of the nearby Red Rock Canyon National Conservation Area can see through this latest makeover and are still opposed to this revised "reclamation" project because of the negative impacts it will have on its human neighbors.<sup>12,13</sup>

We know that the Las Vegas metro area (like a number of other areas around the country) has high unemployment and of course people need (construction) jobs. This project would probably provide some construction employment for several years.

But there are more important issues than one person making a profit and generating short term construction jobs for a year or two.

Unsustainable human behavior is more important – it has become a critical issue that must be addressed now. Living within the framework of a new Ecomorality is imperative if homo sapiens expect to be around for the 500 million years we would expect the planet to be habitable by life (as it exists today).

Many (Most) of the existing Federal, State and county laws and regulations were enacted in a time when it

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<sup>12</sup> **Save Red Rock Canyon from Major Project Development: The Petition** <http://www.ipetitions.com/petition/saveredrock2/>

"Say No" to Major Project Development in Red Rock Canyon.

We, the undersigned, oppose the Gypsum Resources LLC Concept Plan, and the Major Projects proposal as incompatible with the Red Rock Canyon National Conservation Area. We ask the Clark County Commission to deny the increased density proposed in this plan, and abide by the existing land use plan and zoning. We believe that this county, state and nation deserve to have Red Rock Canyon preserved as a rural and recreational escape and protected as a national treasure.

**5,216 signatures as of 12/24/2012**

<sup>13</sup> [www.SaveRedRock.com](http://www.SaveRedRock.com) [http://www.reviewjournal.com/media/download/rhodes\\_plan.pdf](http://www.reviewjournal.com/media/download/rhodes_plan.pdf)

appeared that the world and its resources were infinite, boundless, and there for the taking by the more ambitious/aggressive homo sapiens. We now understand that the Real World is not boundless, that the 7 billion humans on the planet are having a detrimental impact on the planet. To put it bluntly, 7 billion people are trashing the planet and leaving a trail of destruction in their wake. Our callous alterations of the planet and to our extended family of living beings is rapidly changing the niches of thousands of species. Species are becoming extinct, not because of natural changes but because of human-induced changes. According to the conservation biologist Michael Soule,

*"The scale of loss is beyond any measure the planet has ever known. Death is one thing; an end to **birth** is something else<sup>14</sup>."*

The proposed development is shown in blue. There is a two (2) square mile plot of land in the Mohave Desert currently with native plants & animals and a spent gypsum mine "owned" by a millionaire developer. The developer wishes to scrape the land and build a small city in the hopes of adding to his existing fortune. Permits are required, The "property" is surrounded by public land managed by the Department of Interior BLM.

Of course Clark County officials expect to see additional tax revenues if this property is "developed" in the hope that new people who will moving here from out of state – all of whom will be paying sales taxes and helping the local NV economy.

The externalized costs are never mentioned – the current native plants are serving many purposes: harvesting some sunlight, consistent with the scarce supply of water available (5 inches per year) to sequester CO<sub>2</sub> and release O<sub>2</sub> into the atmosphere, hold the top soil, serve as food for local wildlife, shelter for local wildlife, food for micro-organism busy at work beneath ground level. All life found on this two square miles is self supporting and contributes something to the local eco-system. In general the energy state of the planet increases each year as this land is converting some current sunlight into chemical energy that is useful for some form of macro or micro form of life.

Human development will change this land. This "developed" land will be stripped of native plants and animals erasing the above mentioned long term capture of the sun's energy. The natural landscape will be replaced by human creations – road, parking lots, homes, even a building for a community college. Is this human creation in the direction of goodness? – and will it be created in right relations?

So is this proposed Blue Diamond Hill Project a Sustainable Development?

Let's try to find out by asking and answering questions about this project.

## 2. Basic Questions about the Project

*Is the planned development a sustainable human development?*

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<sup>14</sup> "A great silence is spreading over the natural world even as the sound of man is becoming deafening," Bernie Krause writes in a new book, [The Great Animal Orchestra](#). "Little by little the vast orchestra of life, the chorus of the natural world, is in the process of being quieted. There has been a massive decrease in the density and diversity of key vocal creatures, both large and small. The sense of desolation extends beyond mere silence. "If you listen to a damaged soundscape ... the community [of life] has been altered, and organisms have been destroyed, lost their habitat or been left to re-establish their places in the spectrum. As a result, some voices are gone entirely, while others aggressively compete to establish a new place in the increasingly disjointed chorus." Hawaii, he says, is the extinction capital of the world. "In a couple of centuries since the islands were populated by Europeans, half the 140 bird species have disappeared. In Madagascar, 15 species of lemur, an elephant bird, a pygmy hippo and an estimated half of all the [animals](#) have gone extinct." *Published on Wednesday, September 5, 2012 by [The Guardian/UK](#),* Bernie Krause has spent 40 years recording nature's sounds and his tapes provide an actual record of the rate of species and habitat loss - his tapes have recorded the diversity of life that existed just 40 years ago – and is now extinct. . [Add information about the 6<sup>th</sup> extinction.](#)

**Answer:** To be determined by a detailed assessment

*Does the planet actually need another housing project in Clark County Nevada?*

**Answer:** No.

*Are there insufficient homes, a housing shortage in the area?*

**Answer:** No.

Let’s assume the answers to the above questions are yes – so we can proceed with this sustainability assessment.

*Can this new Blue Diamond project be developed sustainably?*

**Answer:** Yes. There is no physical reason / law that will prevent [Gypsum Resources LLC](#) (Jim Rhodes) from building his proposed city in a sustainable manner.

*Will this new Blue Diamond project be developed sustainably?*

**Answer:** Most likely not. Using the obsolete, flawed economic model we have today would show that the effort required to develop this property in a sustainable manner that is mutually beneficial for all life on the planet is not profitable from a personal wealth perspective. As a result, Gypsum Resources, LLC (Rhodes) will not develop this property in a sustainable manner even though that is the right and proper and moral way to do. He will continue to apply the outdated flawed economic model that Wall Street uses and allow that to influence his choices – rather than using a “Real World” economic model that will influence him to use sustainable building practices. Basically we are saying that Gypsum Resources, LLC (Rhodes) will insist on making a profit for himself rather than making a profit for all life on the planet (including himself and his prodigy). However, we can envision a “reclamation” /development process that would be sustainable and provide a more detailed description in Section 1.0

*Assuming the proposed city can be developed sustainably, will the end result be a community that can operate sustainably? Will the people living in this new community live there in a sustainable manner?*

**Answer:** Most likely not. We don’t know until we see and evaluate the planned design of the community.<sup>15</sup>

Although there is limited design detail, we do have some information that can be used to start the assessment. We can envision an end result that would be sustainable. We provide more discussion in Section 2.0

### 3. Envisioning Sustainable Development

#### 3.1 Typical Ground rules:

- Energy must be expended to construct this new development project (fuel and electrical power).
- Water must be provided during construction.
- Materials hauled up the hill to construct the roads, homes, and other facilities must be produced sustainably.
- Existing living beings (plants, animals) must be identified & relocated as appropriate prior to construction and returned after construction.
- Human assistance required must be assembled, trained, assured a safe working environment, and compensated fairly.
- Zero waste from the construction. All unused materials will be 100% recycled for input to next human process.

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<sup>15</sup> There is great resource available, published recently by Amory Lovins and the Rocky Mountain Institute entitled, “Reinventing Fire” that describes in wonderful detail how humans can transition to sustainable living by 2050 using the free market. Section of the book include: Defossilizing Fuels (Lighting the new fire), followed by sections on sustainable Transportation, Buildings, Industry, and Electricity.

- Construction will be performed in a manner that allows 100% recycling of all materials. No toxic materials will be used, or allowed to evaporate into the atmosphere, or be dumped into the waste water/sewer, or buried in the soil. If CO<sub>2</sub> is dumped onto the atmosphere, the developer will provide compensating plants or human facility to remove an equal amount from the atmosphere.

### 3.2 Energy.

Will the developer be using any fuel or power derived from fossil energy? This includes electrical power generated by burning coal, oil, natural gas, tar sands oil or shale oil.

#### 1.1 If, Yes---

Will this project pay back the fossil energy it requires for construction within a 10-20 year timeframe? Any payback time beyond that is not an acceptable risk for the planet. To pay back the fossil energy consumed during construction, the developing organization must harvest an equivalent amount of renewable energy devoted specifically to the repayment of this investment. A new energy harvesting facility dedicated to paying back the energy must also be developed.

To illustrate, supposed Gypsum Resources, LLC (Rhodes) pulls a 9,000 gallon tank truck<sup>16</sup> filled with petroleum derived diesel fuel up the hill to fuel their earth moving equipment for this “reclamation” project.

#### Science/Math:

- 1 gallon of diesel fuel contains approximately 147,000 BTU<sup>17</sup> ( $155 \times 10^6$  joules)(43 kilowatt hours) of energy.<sup>18</sup>
- A 9000 gallon tanker would contain 1,323,000,000 BTU which is equivalent to 387,000 kWh (387 MWh).
- If Gypsum Resources, LLC (Rhodes) burns this fossil fuel **before** harvesting an equivalent amount of current sunlight, then this is considered borrowing an energy resource from the Earth that must be paid back so it is available for use by future generations. The principle of this loan is an equivalent of 387 MWh. The Blue Diamond Hill developer is expected to pay that back plus a reasonable interest of 5% per annum – so for a twenty (20) year energy loan, the amount paid back to the commons after 20 years would be 612MWh with 240 monthly payments of 2.55 MWh. (Mother Nature learned how to compute energy mortgages from Wall Street).
- Solar Photo Voltaic (PV) panels can be installed on Blue Diamond Hill by Gypsum Resources, LLC (Rhodes) to convert sunlight to electrical power to repay this energy loan.
- For every 9000 gallon tanker used, Gypsum Resources, LLC (Rhodes) would merely need to install 110 Solar PV panels<sup>19</sup> on the hill and assure these panels operate for 20 years to payback the planet for the consumption (burning) of this tanker load of ancient sunlight (diesel fuel). Typical design lifetime for PV panels is 20 years.
  - Is there enough room on the hill for these panels – each one requires about 18 square feet.
  - 110 panels will cover about 2000 ft<sup>2</sup> or 0.046 acres. Gypsum Resources, LLC (Rhodes)

<sup>16</sup> Tank trucks typically have capacities ranging from 5,500 to 9,000 US gallons. [http://en.wikipedia.org/wiki/Tank\\_truck](http://en.wikipedia.org/wiki/Tank_truck)

<sup>17</sup> BTU = British Thermal Unit, a measure of a unit of energy using the “English system”. Ironically, even the British who originated this system of measurement have converted to the metric system and use joules or kilowatt hours to denote units of energy. But Americans continue to hold out. Of nearly 200 countries in the world, United States, Liberia, and Myanmar (Burma) are the only remaining nonmetric countries.

<sup>18</sup> Diesel Fuel: <http://auto.howstuffworks.com/diesel3.htm>

<sup>19</sup> Based on personal experience with a home in Colorado where 24 panels east facing panels actually generate around 6.7 MWh per year. Each panel is rated at 235 Watts.



claims to “own”<sup>20</sup> 1280 acres (2 square miles) – so the answer is **yes**, the developer could spare 0.05 acres of his 1280 acres per 9000 gallon tank truck of diesel fuel consumed.

- 110 solar PV panels would cost Gypsum Resources, LLC (Rhodes) about \$55,000 for every 9000 gallon tank truck they drives up the hill for this “reclamation” project. In addition, the diesel fuel itself “costs” \$36,000.

#### **Morality / Sustainable Behavior**

- Paying one’s way from an energy perspective for one’s actions is the responsible thing for any adult to do. Certainly Gypsum Resources, LLC (Rhodes) wants to be a responsible adult and do the right thing as they (he) “reclaims” this mining property after extracting the gypsum for a personal gain. To not pay back the energy he is borrowing from the planet to “develop” this plot of land for more personal gain is immoral with respect to future generations.

Gypsum Resources, LLC (Rhodes) Alternatives: Constructing a dedicated wind farm located nearby with a design/operating life of at least 20 years could also be used to sustainably generate the power to pay back the energy loan. Or constructing a solar PV farm dedicated solely to servicing the Gypsum Resources, LLC (Rhodes) energy loan would suffice.

All humans, including Gypsum Resources, LLC (Rhodes) can no longer “borrow” energy from the Earth with no expectation of ever paying it back. That is immoral behavior with respect to future generations who have a right to live on this planet and have a right to inherit a planet that is in as good a shape as our generation inherited.

Of course if Gypsum Resources, LLC (Rhodes) used 100% bio-diesel fuel<sup>21</sup> instead of a fossil derived diesel fuel, they would be paying as they go and not have to pay the energy back to the planet – see Section 1.2.

## **4. 1.2 If, No---**

if Gypsum Resources, LLC (Rhodes) have a development plan that does not propose to consume any fossil energy, then an energy loan would not be required. The developer would simply have to verify that any energy brought onto the property or used in the development process was certified bio-fuel. This would be a part of the building permit requirements.

This energy covenant includes the energy required to transport needed material up the hill. Suppliers that do not provide certification they use bio-fuel must be accounted for and their energy consumption added to the energy loan taken out by responsible developer, Gypsum Resources, LLC (Rhodes). If Gypsum Resources, LLC (Rhodes) does not have the ability to calculate the amount of energy consumed by their suppliers, consultants can be hired to perform and certify this information using U.S. Department of Energy (Argonne National Laboratory) analysis techniques and publically available computer programs for calculating Life Cycle Analysis and Net Energy. See **GREET, The Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation Model.**

<http://greet.es.anl.gov/>

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<sup>20</sup> “Ownership,” “personal property, mineral rights, etc. have nothing to do with the Real World. Those concepts exist only in the “real world” created by homo sapiens. In the Real World of the Universe, the Earth and its resources are finite. In the Real World, all sustainable forms of Life derive their energy from current (or recent ) sunlight – not one-time-only ancient reserves we call fossil energy that our generation is consuming. We fail to acknowledge that once consumed it is no longer available for the generations to follow – remember, the planet is expected to be habitable for life as we know it for the next 500 million years.

<sup>21</sup> Bio-energy is derived from autotrophs who can derive their energy directly from our Sun and create biomass from which bio-diesel is produced.

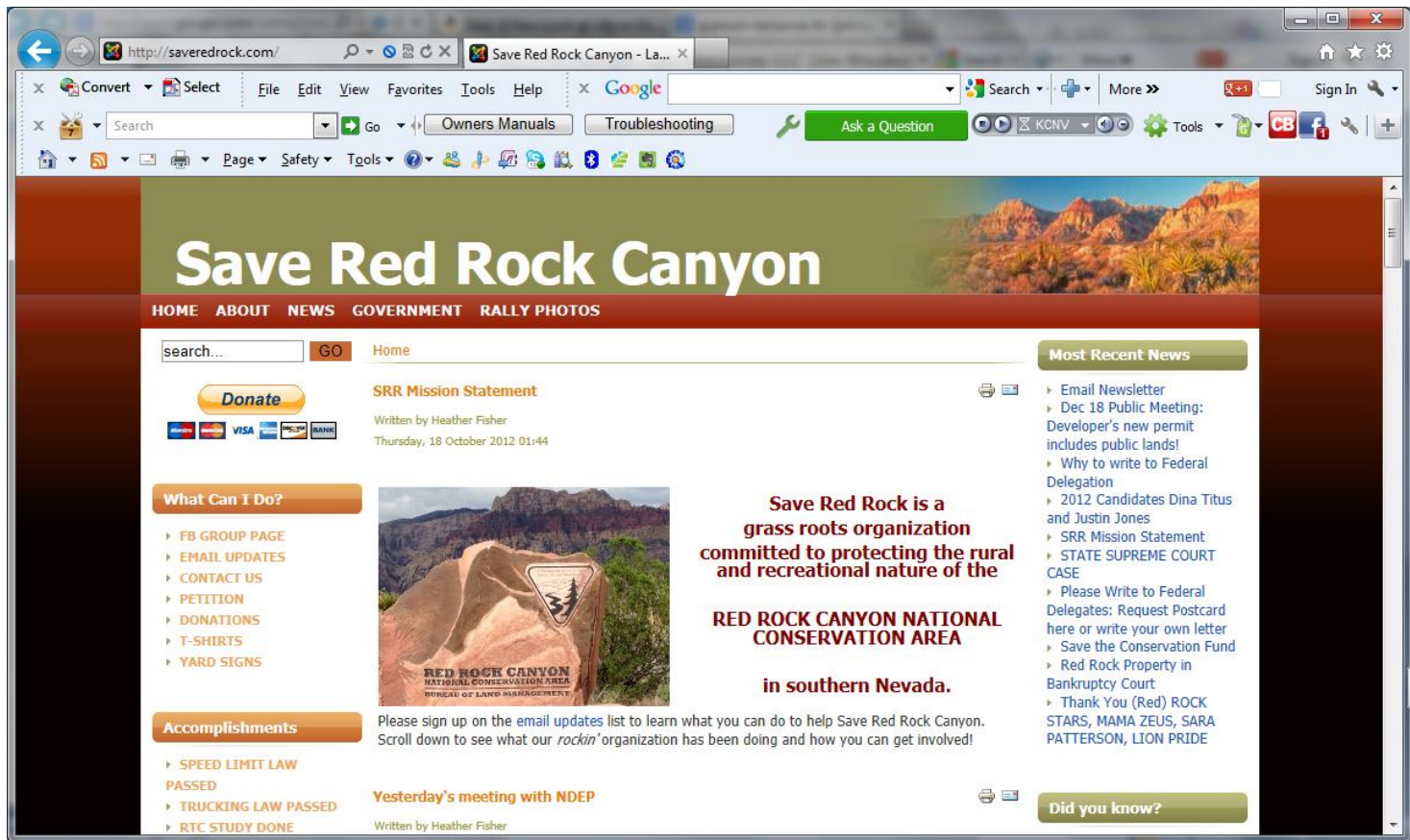
## 5. 2.0 Envisioning a Sustainable Community / End Result

Every home would be operated by electrical power generated locally by solar panels on the roofs of each home. There is no need to consider wind energy because there is ample sunlight in NV to power these homes – if not, then the project is not sustainable. Energy storage is an issue for later discussion.

Every home will require utilities including water, sewer, communications, and electrical power that will be supplied in a sustainable manner.

Say 10 % of the new property will become a driveway/parking area/patio, etc. for its intended development. The land will be covered with concrete made by expending energy to dig up aggregates from the earth and transport them to this property (the energy will be derived from burning one-time-only fossil fuel with the tons of CO<sub>2</sub> being dumped into the atmosphere and with no intention of ever paying it back in like kind for the use of future generations; the aggregate itself this will be borrowed and can be recycled after the concrete is no longer of any use); the Portland cement used to hold the aggregate together will be produced with significant expenditure of fossil fuel (burned hydrocarbons) with the tons of CO<sub>2</sub> being dumped into the atmosphere – the hydrocarbons are a one-time only earth resource – there is no plan to ever pay this energy back or replace it in like kind for future generations – this is immoral behavior by the developer. ¼ of the land will then be covered by a shelter constructed by humans who drive to the worksite each day by burning hydrocarbon (with...etc.). The materials used in the construction include wood (a renewable material grown naturally in the northwest and transported to the work site by burning hydrocarbon (with....etc.)). Most likely the wood will be harvested from mature trees that may or not have replaced by planting new trees to replace those cut down. Generally speaking trees are cut before a replacement has been grown – therefore the planet suffers a steps down for 50 years until the new tree can mature. The number of trees cut are of course a function of many factors involved in the logging and lumber business – most of these factors are a function of the profit that can be made by the logger rather than on the forest's well being. – the source of the resources.

## Blue Diamond Hill "Development" Project



<http://saveredrock.com/>

### Proposed Development

- \*Estimated 14,500 residents (similar to Boulder City)
- \*mountain top property surrounded by Red Rock Canyon National Conservation Area, campground, and rural overlay district.
- \*4-6 lane highway proposed for southern cliff face
- \*45,000 daily estimated car trips
- 20-30 years construction project in ultra fine dust (gypsum soils)
- \*Single highway only ingress/egress to Gypsum development; up to 8-12 deg in grade
- \*80,000 daily estimated car trips at the junction of development highway and SR 160 (Blue Diamond Highway). inner city numbers by comparison: Charleston & Durango have 87,000 car trips.
- High potential for emergency accident/weather road closures on steep-graded only access road
- Over 20,000 homes in Las Vegas Valley vacant/foreclosed etc.
- \*Construction of 4,700 homes plus urban-style commercial buildings, institutions, shops, etc.
- Requested use of Scenic Byway for construction traffic
- Increased traffic for bicyclists and burros/animal migrations in Red Rock Canyon NCA.
- Large-vehicle construction trucks on the Red Rock Canyon Scenic Byway.
- Requested County assistance with BLM land-use permissions to save the developer millions in fees.
- County not required to apply to BLM as stated by developer.
- \*Assumption that water to be supplied by LVV Water District as Las Vegas Valley suffers drought and low water supplies for existing homes/buildings.
- \*Assumption that sewer services to be supplied by Clark County Water Reclamation District.
- Extreme population and density: Developer proposes 4,700 homes on 2 square miles of land. (Boulder City with similar population, is on 24 square miles.)
- Water lines proposed to be pumped 1500 vertical feet up the cliff face.
- Sewer lines proposed to descend 1500+ feet to Rhodes Ranch or Mountain's Edge.
- Rhodes Ranch and Mountain's Edge sewer systems not pre-engineered to receive this amount of waste.
- \*20-30 year buildout plan
- No more dark sky in Red Rock Canyon NCA.
- No more natural sunset skyline from Las Vegas Valley, city on horizon instead.
- Lines of headlights descending at dawn and rising at dusk.
- Engine braking noise pollution through echoing canyon.
- Leap-Frog' real estate development miles away from nearest infrastructure.
- Current unfinished projects across the Las Vegas valley, by this and other developers, point to the historic possibility of scarring Red Rock Canyon with a 6-lane highway blasted up the cliff to an incomplete, abandoned project.

## Blue Diamond Hill "Development" Project

Project currently not advancing on positive aspects, merits or suitability, but on legal settlements and threats of legal actions against Clark County Commission.

\*Sources: Gypsum Resources LLC's Concept Plan, Maps, and Specific Plan and Public Facilities Needs Assessment ('PFNA')

**Average annual daily traffic** (NOTHING compared to 45,000 developer wants to add!)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
SR 159, just east of 13-mile loop entrance	3100	4150	3650	5100	4550	5300	4800	4500	4800	4300
SR 159, just north of junction with SR-160	2250	2250	1950	1950	2250	2600	2000	1900	2000	1400
SR-160 just east of turnoff to 159	9800	8600	8600	11000	9550	9750	9900	9900	10000	8400
Loop road, midway along	500	850	450	800	680	700	740	690	670	860

GYPSUM RESOURCES, LLC v. MASTO, 672 F.Supp.2d 1127 (2009)

GYPSUM RESOURCES, LLC, Plaintiff, v. Catherine Cortez MASTO et al., Defendants.

### I. FACTS AND PROCEDURAL HISTORY

Plaintiff owns real property (the "Gypsum Mine Property" or the "Property"), which consists of 2400 acres that abut and, in some locations include, portions of the Red Rock Canyon National Conservation Area ("RRCNCA"). The area was mined for gypsum in the 1920s and later, and it bears the scars of that activity. The land is located in Clark County approximately twelve miles west of the Las Vegas Strip and is zoned as RU (rural), which allows for the development of residential housing of one home on every two acres<sup>22</sup>. James Rhodes, on behalf of Gypsum, contracted to purchase the Property in September 2002 for over \$50 million<sup>23</sup>, with the intent to develop it for both residential and commercial uses. The purchase was finalized in March 2003, and the Property was subsequently transferred to Plaintiff.

In 2003, the Gypsum Mine Property drew the attention of local, state, and federal lawmakers, who discussed the possibility of acquiring the property to expand the RRCNCA. However, the Bureau of Land Management ("BLM") did not want to take responsibility for the Gypsum Mine Property due to its damaged condition. Clark County passed a resolution on May 6, 2003, supporting the fair market acquisition of the lands and transfer of title from the County to BLM.

In the meantime, SB 358 was sponsored by State Senators Titus, Wiener, Care, Schneider, and Coffin, see 2003 Nev. Stat. 595, to limit development, subdivision regulation, and rezoning in an area (the "Adjacent Areas") that includes the Gypsum Mine Property. SB 358 was passed by the Nevada Legislature and signed into law by Governor Kenny Guinn on May 19, 2003. It amended several chapters of the Nevada Revised Statutes. Section 11 gave SB 358 an effective date of July 1, 2003. *Id.* at 598. The Act, in relevant part, prohibits local governments from approving a land use application that would increase the number of residential dwelling units allowed by existing zoning regulations within the Adjacent Areas, unless a trade of development credits was involved:

With respect to adjacent lands, a local government:

1. Shall not, in regulating the use of those lands:

(a) Increase the number of residential dwelling units allowed by zoning regulations in existence on the effective date of this act, unless such an increase can be accomplished, within a given area, by the trading of development credits or another mechanism that allows a greater number of residential dwelling units to be constructed in that area without increasing the overall density of residential dwelling units in that area;

SB 358 § 8 (adding this text to Chapter 639, Statutes of Nevada, 1993 Nev. Stat. 2673, as § 4.3(1)(a)). The Act also prohibits the County from establishing new, non-residential zoning districts on the affected lands or expanding the size of existing non-residential zoning districts:

With respect to adjacent lands, a local government:

1. Shall not, in regulating the use of those lands:

<sup>22</sup> This would allow up to 1200 residential units – figure 4 / house/family = ~5000 people. Current plan is to expand to 14, 500 people.

<sup>23</sup> \$20,000 / acre. Assume mineral rights to mine any remaining gypsum (if these is any left) are included

- ....
- (b) Establish any new nonresidential zoning districts, other than for public facilities; or
  - (c) Expand the size of any nonresidential zoning district in existence on the effective date of this act, other than for public facilities.
- Id.* (adding this text to Chapter 639, Statutes of Nevada, 1993 Nev. Stat. 2673, as § 4.3(1)(b)-(c)).

Shortly thereafter, on May 21, 2003, the Board adopted CCO 2914, which imposes additional design standards and density restrictions for development within and adjacent to the RRCNCA. Virtually identical to SB 358 in many ways, CCO 2914 states that the County will not accept any land use applications that would (1) increase residential densities unless a trade of development credits is involved, (2) establish new non-residential zoning districts, or (3) expand the size of existing non-residential zoning districts on the affected lands, including Plaintiff's Property.

Plaintiff contends that the local and state officials purposefully "sought to orchestrate a program that would eventually force Rhodes to sell the Gypsum Mine Property to the State at a price that was artificially depressed by a coordinated governmental effort." (# 1 at 12, ¶ 24). Plaintiff believes his Property was singled out to create a buffer adjacent to the RRCNCA and that this is in conflict with the federal law creating the RRCNCA because the federal statute specifically stated that a buffer zone around the conservation area was unnecessary and unintended. See 16 U.S.C. § 460ccc-9.<sup>1</sup>



Of all the species that have lived on the Earth since life first appeared here 3.8 billion years ago, only about one in a thousand is still living today. All the others became extinct, typically within ten million years or so of their first appearance. This high extinction rate has had an important influence on the evolution of life on Earth: the population and repopulation of an ecological niche by species after species allows for the testing of a much wider range of survival strategies than the slower process of phyletic transformation by which a species gradually adapts to its surroundings. This in turn has contributed greatly to the diversity of life on the planet.

"Mass-extinction: Evolution and the effects of external influences on unfit species" by

M. E. J. Newman, Cornell Theory Center, Cornell University, Ithaca NY ; B. W. Roberts, LASSP, Cornell University, Ithaca, NY

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Heather,

My partner, Gail and I live in Sun City and she has attended a number of your meetings at Blue Diamond in support of "saving Red Rock." We applaud your efforts.

I personally am evaluating this project from a slightly different perspective, to demonstrate that since the community does not really need additional housing and the only motivation to proceed seems to be to allow Gypsum Resource LLC (James Rhodes, et. al.) to personally make a profit, then its development (construction) must be strictly sustainable and the end result must be sustainable – in other words, the planet must also profit from this "development."

I doubt that the developer intends to satisfy either of these sustainability requirements. I would like to explore this perspective further but I need additional reference materials about the planned development.

You have referenced a number of Gypsum Resource, LLC documents that apparently have been submitted to various government agencies for the permitting processes. I believe these documents would contain the information I need to conduct further research.

\* Sources: **Gypsum Resources LLC's Concept Plan and/or Specific Plan and/or Public Facilities Needs Assessment ('PFNA') and/or Waiver Requests Application.**

Could you please advise me on how to go about obtaining a copy of these resource materials?

Thanks again for all your efforts. I would be happy to answer any questions you might have about the assessment I wish to do about the sustainability aspects of this proposed development.

Respectfully,  
Milt Hetrick  
Sun City Summerlin  
[mahetrick@msn.com](mailto:mahetrick@msn.com)

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## Blue Diamond Hill Development

### IMPACTS

(of Gypsum Resources, LLC's Real Estate Development for Blue Diamond Hill)

## Population and Development Size

\* Estimated 14,500 residents (*higher population density than Boulder City*) surrounded on three sides by the Red Rock Canyon National Conservation Area (RRCNCA) atop the former gypsum mine called "Blue Diamond Hill".

\* Gypsum Resources, LLC ('Gypsum') wants to build 5,040 residential "units" and projects 14,500 residents on roughly two square miles of designated residential land footprint. Blue Diamond Village is 107 homes on one square mile of land.

Gypsum's development plan means *46X the residential 'unit' density and 41X the people density of Blue Diamond Village - on 2.5 times the land footprint.*

\* Construction of *5,040 total 'units' on a gypsum-based mountain* damaged by blasting and strip-mining for the last 80+ years. Possible unstable geologic substructure for roadway and building construction foundations.

There are about 20,000 vacant / repossessed / foreclosed homes in the most challenged, hard-hit real estate market in America - Las Vegas. *This is the WRONG TIME and the WRONG PLACE for another 5,040 residential 'units' to compete with the Las Vegas Valley!!*

## Traffic Volume and Impacts

\* 80,000 car trips per day estimated at the intersection of the proposed 'private highway' and Blue Diamond Road at final buildout. No plans by the developer to improve traffic access to the 215 (Ft. Apache, Durango, Buffalo & Rainbow).

\* 44,800 car trips per day estimated up and down the private 'primary access' highway climbing the east cliff-face of Blue Diamond Hill. With right-hand turn lanes available at Blue diamond road, tens of thousands of car trips / day expected through the Red Rock Canyon scenic byway (St. Rte. 159).

\* A *6-lane highway* climbing the eastern cliff-face of Blue Diamond Hill at final build out.

\* *One 'primary access' highway is the main entry / exit to Gypsum's private real estate development.* In places, this highway may be 8 to 12 degrees in grade (which may exceed NDOT engineering guidelines). Large Real Estate developments usually require TWO available major avenues of ingress / egress.

*Greatly increased vehicular traffic - permanently- on the Red Rock Canyon scenic byway threatens bicyclists, runners and burros / animal migrations in Red Rock Canyon National Conservation Area.*

## Gypsum's Waiver Application Issues

Gypsum's two requested "waivers are favors" by the Board of County Commissioners. Gypsum AGREED to the two conditions it now wants waived in order to have the Commissioners pass the first step of the Major Project process, the "Concept Plan".

Gypsum asks the Commissioners to waive what Gypsum agreed to - after Gypsum got what it wanted. 'Gypsum', in the view of the opposition, is acting in "bad faith" while demanding the Commissioners act in "good faith".

\* Gypsum desires the County Commission to apply for the BLM / Federal permissions Gypsum requires. The County making that application FOR Gypsum to the BLM would save Gypsum many millions in processing fees and land-use rents to the BLM (aka, "we the people").

*Gypsum stated in the waiver application that County \* MUST apply to Federal authorities FOR*

*Gypsum's BLM land-use and right-of-way requests. Gypsum's stance as stated in waiver application is not the truth according to the Federal Land Policy Management Act (FLPMA - 43 CFR; 2803-10).*

## Public Resource and Quality-Of-Life Issues

*\* Water to be supplied to, Gypsum by Las Vegas Valley Water District as the Las Vegas Valley~. \_ ~ \_\_ . suffers drought, low Lake Mead levels and stressed water supplies for existing homes / buildings.*

*\* In early stages of development, before the planned 'slurry slide' is built to the sewer systems of Rhodes' Ranch and/or Mountain's Edge; there-will be one-or-two sewer plants on top of the southern summit of Blue Diamond Hill.*

*\* Sewer pipelines ejecting sewage from Gypsum's proposed Blue Diamond Hill development 1500 ft. down to Route 160, then several miles east into Rhodes Ranch and/or Mountain's Edge sewer systems. Neither Rhodes' Ranch or Mountain's Edge's systems have been proven as pre-engineered to accept the additional volumes of waste.*

*No more dark nighttime sky in the Red Rock National Conservation Area.  
From the Las Vegas Valley looking westward = light pollution on the western horizon,  
forever!!*

*No more natural Red Rock Canyon / Spring Mountains skyline when looking westward.  
Instead, lines of headlights descending in the morning and tail-lights rising to top at  
dusk at the rate of 22,500 cars / day!!*

*\* Sources: Gypsum Resources LLC's Concept Plan and/or Specific Plan and/or Public Facilities Needs Assessment ('PFNA') and/or Waiver Requests Application.*

## Blue Diamond Hill "Development" Project



[http://www.reviewjournal.com/media/download/rhodes\\_plan.pdf](http://www.reviewjournal.com/media/download/rhodes_plan.pdf)

**Considerations in evaluating the sustainability of a project**

- Weight of a house – energy required to get it up the hill
- All residents will be required to drive hybrid electric cars that use bio-fuel and have regenerative brakes to go up the hill – no friction brakes
- Try to create a sewer system that captures / recovers the energy required to pump water up the hill – use the hill to store water Solar PV
- Compost all waste and use it as food to re-vegetate the hillside / grow food – probably not – will require too much water – recycle all waste water
- No open water features / pools to minimize evaporation – any pools will be enclosed and water vapor will be recycled and not lost. Water conservation - <http://water.nv.gov/programs/planning/plans.cfm>
- All roofs will have as much solar PV as possible – as will parking lot shades, store roofs / etc. All surfaces will attempt to harvest sunlight to the maximum extent possible – sun is the prime resource of Nevada – exporter of re-newable energy.
- No hoarding
- No ancient hydrocarbon burning – except bio-fuel
- Sustainable water use – 100% recycling
- 100 % recycling of all materials.
- Encourage town meetings
- Encourage exercise paths /walking trails / bike paths
- Limit sky shine
- Limit glare toward Red Rock Canyon, toward Las Vegas