PART III – LIMITS OF ACCEPTABLE CHANGE

*'It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the **use and enjoyment of present and future generations.'***

BLM [29]

The BLM mission and various federal policies acknowledge **recreation as a legitimate use of the public lands** and make it clear it is **never** an option to close the public lands to recreational users. Limits of Acceptable Change (LAC) [1] is a management approach which also recognizes both natural processes and humans inevitably have impacts. It aims to inventory existing conditions using quantitative measures, set standards for desired amounts of change and create management policies to preserve conditions within those limits. While short-term, measurable impacts have been addressed by Burning Man and BLM, the larger, cumulative impacts evident by the loss of opportunities unique to the desert **exceeds the limits of acceptable change**.

A. THE HUMAN PRESENCE

Dunes are caused by the interaction of wind, soil, weather and obstructions; however, **it is clear that the human presence also plays a significant part**. As we travel across the desert, we contribute to their formation by breaking the desert surface and increasing fugitive dust. We also provide structures and barriers against which the dust accumulates and forms dunes.

1. Desert users acknowledge the consequences of their affection

*Burning Man, and all of us who love and foster the event, have a huge problem: **We are destroying the desert***
The problem is that 49,599 attendees stir up a lot of dust, which gets blown around the desert and is changing the Black Rock Desert from one of the World's flattest places—suitable for the 1997 ThrustSSC land speed record—to a dune field.
- http://sites.google.com/site/blackrockdunes/ [14]

2. Dune increase attributed to vehicle traffic

It is likely that the socio-cultural record of the Black Rock playa is most significant in explaining the presence of the playa "dunes". The increased use of the playa resulted in a concurrent increase in sediment budget due primarily to vehicle traffic associated with large-scale events. The previous playa equilibrium was affected as the sediment budget crossed a threshold where seasonal reworking could not reestablish open playa conditions. A recent increase in sediment load in the seasonal playa lake resulted in bedform formation. The playa system is moving toward a new equilibrium associated with the new

sediment budget by establishing "dunes" on the open playa.

- Preliminary Analysis of Playa Bedforms of the Black Rock Desert, Washoe County, Nevada, 2000 [30]

3. Increased surface disturbance contributes to dunes

from Burning Man EA

3.3.1. Playa sediments and vegetation

The sediments of the playa are subject to displacement by winds when dry and disturbed. Winds that most commonly move the surface materials are associated with frontal passage or thunderstorms. Wind movement of sediment particles can cause the periodic formation of low, transient dunes. Wind erosion is a function of particle erodibility, surface roughness and weather conditions. Vehicle use and other disturbances on the playa alter the surface roughness. Increased roughness slows sediment particle movement across the surface, causing particles to accumulate on the leeward side of low features forming transient dunes.

B. MEASURABLE IMPACTS

Six months after the event BLM and BM staff and volunteers traverse 65 plots through the randomly chosen in Black Rock City. Non-native materials are collected and catalogued. Debris levels have always been below allowed 1 square foot per acre. These 'acceptable' amounts of debris have become the celebrated mark of success by Burning Man, the media and BLM alike. However, they were **never intended to become the SOLE criteria for permit compliance.**

C. LONG-TERM CUMULATIVE IMPACTS

Potential oil drips from vehicles[31] and debris via the annual BLM inspections[32-35] are fairly easy to establish a baseline and monitor for change over time. Larger changes such as surface degradation and compaction offer a much larger challenge to measure. Evident, however, are the **effects of these impacts**. Dunes and dune fields have increased enough to warrant safety warnings, to appear on aerial imagery, and to inconvenience vehicles and pedestrians during the event.

The unusually flat surface and open space provides for activities that depend on the desert. The EA addresses this issue –

4.2.3. Recreation

Physical disturbances, such as pitting or rutting of the area surface, or debris left from the event could leave the playa in a less than ideal condition for other uses. Having a flat playa surface is critical to land sailors and land speed record attempts.

Even with cleanup after the event, small portions of the playa could be less usable for these activities until wetting rains provide moisture to stabilize and redistribute playa sediments.

Unique opportunities are being lost by a wide range of users.

1. Land Speed record attempts

The current land speed record was set on the Black Rock in 1997. The surface is no longer sufficient for the needed miles of track. Teams have looked elsewhere but choices are few[36].

2. Landsailing

The surface is no longer smooth enough for dirt boats. Many have been forced to move elsewhere.

3. Rocketry

Fugitive dust is worse every year, particularly at the September AeroPac[37] and BALLS[38] events which are downwind from the Burning Man clean-up. There are limited locations in the US to obtain a 100,000-foot FAA flight waiver.

4. Recreational users at large

Transient dunes present a safety hazard to those travelling across the desert. BLM and various user groups have warned against driving too fast on the deceptively flat open surface via the Web and other communications.

Surface degradation contributed by the users of the desert themselves is making the 'land of many uses' less so. This exceeds the limits of acceptable change.