



Tahoe Regional Planning Agency
Governing Board Members and TRPA Staff
P.O. Box 5310
Stateline, NV 89449

February 4, 2010

Sent via e-mail to Project Contact: David Landry (dlandry@trpa.org)

Subject: Draft Environmental Impact Statement (EIS) for the Boulder Bay Community Enhancement Program Project.

Dear Governing Board Members and TRPA staff,

We would like to thank you for the opportunity to comment on the draft Environmental Impact Statement (DEIS) for the Boulder Bay CEP Project (hereafter "Project") and extended comment period.

We have reviewed the DEIS for this Project and have many concerns with the technical adequacy of the document. While we have focused our comments on three key issues of concern, we herein incorporate comments submitted by the League to Save Lake Tahoe (League), California Attorney General and the North Tahoe Preservation Alliance (NTPA), which address other areas of the document we believe are technically inadequate.

We believe there could be substantial environmental benefits provided by the project, primarily with regards to stormwater treatment, however we are concerned that the DEIS has failed to adequately analyze several components of the project which could negatively impact several of TRPA's thresholds, including the additional traffic generated by the project and the increased water demand on an already taxed water supply.

We provide the following comments and questions to guide the information and analyses included in the final EIS.

Please feel free to contact Jennifer Quashnick at (530) 577-4233 or jqtahoe@sbcglobal.net or Ron Grassi at (530) 583-3105 or ronsallygrassi@mac.com if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Ron Grassi".

Ron Grassi, Esq. (Retired)
Conservation Chair,
Tahoe Area Sierra Club

I. Traffic

Traffic creates impacts on numerous other TRPA thresholds, including water quality and air quality. As the TMDL has documented, traffic traveling over roadways contributes substantially to the pollution in runoff from those roadways. We also know that as vehicles travel, the tires grind up larger particles on the roadway into finer sizes, which have a greater impact on Lake clarity. Additionally, vehicle emissions are one of the primary sources of nitrogen oxides (NO_x) in the Basin, and as the TMDL research shows, over half of the nitrogen entering Lake Tahoe is from atmospheric deposition. The current standard for nutrients in the lake is Primary Productivity. In the last TRPA Threshold Report (2006), this standard was roughly 400% out of compliance. In other words, measured primary productivity exceeded the standard by about 4 times. As documented in recent “State of the Lake” reports from the Tahoe Environmental Research Center, primary productivity continues to rise each year.

In summary, the impacts of vehicle use in the Basin are substantial. TRPA cannot make Chapter 6 findings when considering approval of projects which increase traffic (or more specifically, vehicle trips and Vehicle Miles Traveled [VMT]) because increasing vehicle use does not help attain and maintain environmental thresholds.

A. DEIS fails to adequately analyze traffic impacts:

1. Improper Baseline:

One of the largest concerns we have with the proposed Project is the increase in traffic that will result. The technical ‘analysis’ of traffic impacts in the DEIS is sorely lacking technical adequacy and is based on questionable assumptions. We fully endorse the comments submitted by traffic expert Joy Dahlgren (submitted with NTPA comments) and add the following additional comments.

- The DEIS ‘concludes’ that alternatives C and D will reduce traffic in the area compared to existing conditions. However, the DEIS does not actually use ‘existing conditions’ as the baseline traffic (which should represent the traffic currently generated by the site), but rather, has instead relied on unfounded assumptions of what is claimed to be the traffic that “would be generated” if the current facility were operating at “full capacity.” The DEIS notes that the casinos in North Lake Tahoe had about half (54%) of the visitation in 2008 compared to 1999 (page 4.8-11, Table 4.8-4). During the public hearings, DEIS consultants indicated that TRPA allows this interpretation for the baseline conditions when analyzing ‘redevelopment projects’ (although we have not found any reference in the Code specifying this). The result of what appears to be a staff ‘interpretation’ is that the traffic impacts for alternatives C and D appear to be less than existing conditions because a much higher ‘hypothetical’ traffic level is used for the existing conditions. This simply defies all logic, as these alternatives substantially increase the number of residents and visitors in this area by orders of magnitude above existing conditions. No amount of transit can mitigate for this increase let alone actually produce a net decrease.

- As Mr. Dan Siegel stated at the December Board hearing for this project, this assumption is not technically sound. The EIS must use a baseline that is equal to **actual** existing conditions rather than the ‘hypothetical baseline’ used in the DEIS.

2. Improper assumptions regarding casino space and trip generation:

A substantial portion of the reason behind the claim that traffic will be reduced is associated with the reduction in casino floor space from 29,744 sq. ft. of existing casino floor area to 10,000 sq. ft. However, as the DEIS acknowledges, existing use of the casino is about half of what it used to be, thus current traffic associated with use of the casino is also reduced compared to 10 years ago.

- Further, we refer to comments provided in a Memorandum from Mr. William Eadington, Ph.D. dated 1/29/10 (submitted by the NTPA). Mr. Eadington has studied casinos in various jurisdictions with focus on the space needs for tables and slot machines. His analysis of the proposed project and associated impacts on traffic concludes:

“...If anything, there still remains an over-supply of gaming equipment at the various casinos at the North Shore. Any further reduction in equipment at any one casino is unlikely to inconvenience customers who frequent those casinos, and certainly would not reduce the volume of visitor traffic to those casinos. Reduction in square footage of casino floor space would have no impact on the existing volume of casino customers at North Shore because of the excess existing capacity and the past decade’s reduction in demand.”

“Therefore, the claims that Boulder Bay planners have made that reducing the physical size of the Tahoe Biltmore casino (in terms of square footage) would result in any reductions in traffic to the casino core is clearly erroneous. Furthermore it is patently illogical to propose that such reductions in casino traffic due to removal of redundant casino floor space could offset any increases in traffic from development of a large number of tourism accommodation units at the Boulder Bay site.”

The EIS must assess the traffic generated by the existing casino and provide scientifically-valid evidence supporting any associated conclusions.

B. DEIS includes improper comparisons to other resorts:

The DEIS compares what are claimed to be “12 other existing resort properties of similar scale and composition” (page 2-20) to the proposed project. As stated in our NOP comments on the project, the proposed project does not represent the typical ‘Destination Resort.’ Such resorts typically reside at the base of a major activity that draws people to the area, such as a ski resort. On that note, we reviewed the website information for the 12 noted resorts used in the comparison, and found that in all but one case, the “Destination Resort” was located at the base of a major tourist destination, generally a ski resort:

Four Seasons, Jackson Hole:
Park Hyatt, Beaver Creek:

Slopeside: ski in/ski out
Slopeside

Ritz-Carlton, Bachelor Gulch:	Slopeside (Beaver Creek)
St. Regis, Aspen:	Slopeside
Pan Pacific, Whistler	Slopeside
Westin, Avon, CO (Vail)	Slopeside
Ritz-Carlton, Northstar	Slopeside
Hotel Jerome, Aspen	A few blocks from ski area/Gondola
Westin, Whistler:	Walk to Gondola

In these locations, tourists and residents could walk to the destination activity. The one minor exception was Hotel Jerome in Aspen, CO, which just a few blocks from the ski resort (however within walking distance of the downtown retail area and Gondola¹). By comparison, Boulder Bay is located miles away from any ski areas and certainly guests and residents will not be able to walk to a major destination. The DEIS appears to claim the “Health and Wellness Center” is the “Destination” for the proposed project. Not only is this unsupported by the evidence, but as noted above, the proposed project has used ski area destination resorts for a comparison yet the proposed project itself is NOT located at the base of any destination ski resort.

C. DEIS fails to disclose Total Population for each Alternative:

Additionally, the DEIS fails to disclose the expected increase in guests and residents associated with each alternative. The only information thus far available is found in the 2008 Traffic Study done for an earlier version of the proposed project. The EIS must clearly disclose the increased population associated with each alternative, the available residential prospects, commute distance, and the number of parking spaces that will be built for employees. Further, this information is necessary for performing an adequate transportation analysis of each alternative.

The FEIS must supply a population/traffic increase number with substantiation and then explain how project proponents intend to deal with it. For example, let's say traffic will increase 30% as a result of the Proposed Project. The FEIS must document how project proponents will deal with this increase – in other words, the FEIS must list the actions that will be taken and include associated evidence that those actions will in fact work.

II. Water quality and Stormwater Treatment

As we have stated in previous verbal comments, we believe that the stormwater treatment component of the proposed project sounds impressive, and could result in notable water quality benefits compared to existing conditions. However, the DEIS fails to include evidence to support the project's claimed benefits.

A substantial portion of the claimed on-site benefits are due to the installation of a ‘treatment train’ to capture stormwater runoff which is currently and for the most part not being captured and treated. Additional verbal discussions with stormwater and soils

¹ <http://hoteljerome.rockresorts.com/hotel-highlights/index.asp>

experts (e.g. Michael Hogan and Mark Grismer) involved in the project indicates more details are available regarding the proposed treatment system that were not available at the time of the release of the DEIS. We have been working with project proponents and technical consultants to set up a meeting to discuss the additional information that is available regarding stormwater treatment² and we look forward to these discussions.

However, our comments herein are focused on the technical inadequacy of the DEIS. As a result, although we recognize that more information is currently being gathered, we focus our comments on what is missing or inadequate in the DEIS. We expect more comprehensive information and supporting evidence will be included in the Final EIS.

A. DEIS fails to quantify water quality benefits associated with each alternative:

Water quality is clearly one of the most recognized environmental thresholds in the Basin. Over a billion dollars have been spent in the past 10+ years in an attempt to reduce the pollutants entering Lake Tahoe that are causing a continued reduction in the Lake's famed clarity and creating significant problems along the littoral (nearshore) zone. We have known for years that fine particles (e.g. particles less than 16 microns in diameter) are the primary cause of clarity loss (roughly 2/3) and the nutrients nitrogen (N) and phosphorus (P) cause about 1/3 of the lake's clarity loss due to the growth of clarity-reducing algae. When TRPA introduced the "Community Enhancement Program" (CEP), one of the largest areas of focus included the requirement that projects provide substantial net environmental gains above and beyond those required by the current Regional Plan and Code of Ordinances. This included heavy focus on the treatment of stormwater runoff to reduce the pollutants entering Lake Tahoe.

Thus, it is actually quite surprising that the DEIS fails to quantify the pollutant loading (and reduction) for each alternative. We found a very 'rough' estimate of the current annual loading (page 4.3-10 from Appendix P), which is estimated at approximately 34,450 pounds per year. However, no estimate is provided regarding the loading (and reduction) associated with each alternative.

- For example, the document explains that Alternatives A and B will simply install the BMPs currently required, which are designed to treat the 20 year (1 inch per hour) storm. The DEIS claims that the Preferred Alternative (C) will include a system designed to treat the 50 year storm, and that with additional designs included in the project (e.g. green roofs, pervious pavement), will actually treat the 100 year storm.
- However, the DEIS fails to identify what the estimated load reductions are for each alternative. In other words, what is the load reduction with the 20-year storm design in Alternatives A and B? What is the load reduction for the 50-year design, and 100-year design?

The document must disclose how much each alternative reduces load and describe how substantial each alternative's reduction is compared to what is required by

² In fact, we are currently scheduled to meet February 11, 2010.

the current Regional Plan and Code. After all, the CEP granted exceptions on the basis that the threshold standards – and not just water quality – would receive a substantial net gain. The CEP set the rules; the projects cannot revert to what is currently expected, because the projects are expected to produce a significant net gain. That point cannot be stated often enough, although it is clear to those commenting on this project that the developer must meet the expanded criteria, and it must be met in each of the alternatives.

B. DEIS fails to provide evidence supporting claimed reduction in particulates:

The DEIS claims that the preferred alternative's stormwater treatment reduces fine sediment particles (FSP) in runoff by 90% (Appendix R, page 5). However, no information is provided regarding the source and applicability of this 90% claim. The statement merely references a 2005 document and specific page number³. When we located this document⁴ and viewed the referenced page number, we found no information regarding a 90% reduction in FSP. Not only does this fail to provide any evidence supporting the claimed 90% reduction, but the focus of the study in this reference was not fine sediment removal, but the removal of heavy metals from water – a completely different issue!

We note that on the previous page (page 85) there is a minor reference to a "Pitt et. al." document dated 1995 where apparently they found a 90% reduction in particles from 6-41 microns using sand. There is no discussion of this study, the methods used, the particle size class and distribution, sand type, maintenance requirements, etc., nor any discussion regarding how such a study may be relevant to the proposed project's stormwater treatment at all. Further, Pitt's report is not in the References section of the Guidance document. Thus, all we could find was a reference to a reference which includes yet another reference for the supposed 90% claim. **Evidence, including the details of actual studies, assumptions used, and how this information relates to the proposed project's system, must be provided clearly to the public!**

The EIS must provide adequate and clear evidence supporting the claimed reductions associated with each alternative. This evidence must be included in the FEIS. The public should not have to research footnotes within footnotes in an attempt to find such information (and then still have to 'figure out' how it supposedly relates to the proposed project!).

³ Appendix R includes this reference: "Hinman, C (2005). *Low Impact Development: Technical Guidance Manual for the Puget Sound*, (p. 86), Puget Sound Action Team • Washington State University Pierce County Extension."

⁴ http://www.psp.wa.gov/downloads/LID/LID_manual2005.pdf

C. DEIS fails to address several other water quality issues, including but not limited to the following:

1. Questions regarding baseline water quality data:

The document explains that JBR Environmental consultants sampled 6 rain events and rain on snow (ROS) events (summarized in Section 4.3 and detailed in Appendix P). Questions include:

- How do the sampled storms compare to the 20-year, 50-year and 100-year storms?
- How well do the timing of the samples correlate to the “first flush,” which according to a Hydrosience Report prepared for TRPA⁵, is when the greatest pollutant loading in stormwater occurs? As a result, how well do estimated pollutant concentrations represent concentrations expected from each storm?
- The DEIS states that Western Environmental Testing Laboratory analyzed the samples for several constituents, including TSS, TSS < 20 microns, turbidity, total N, total P, DP, DIN, total Fe, oil and grease. However, TRPA’s Surface Water Discharge Limits are listed for Suspended Sediment Concentration (SSC). The footnote on page 4.3-5 explains that TSS is more appropriate for stormwater, but either way, how do the concentrations of TSS and TSS < 20 microns compare to SSC-based standards? What is the difference?
- Pages 4.3-5 through 4.3-6 discuss the findings of the samples gathered on the 6 events. However, each discussion explains that “Dissolved ...SSC [was] not analyzed”. No TSS data are presented or discussed here, let alone the more important FSP data (e.g. TSS below 20 microns). Yet on page 4.3-5 the last paragraph states specifically that both TSS and TSS less than 20 microns were analyzed. Why are the TSS findings not included in the summaries on these pages? What are the findings?
- How valuable are the existing conditions estimates given the inadequacy of the stormwater sampling size and method (an inadequacy in fact recognized by the DEIS)? Specifically:
 - Page 4.3-6 states: “No trends are reported at this time because of the small sample size...”
 - Page 4.3-7 discusses the methods and their relationship to estimating “event mean concentrations” (EMCs), a term used by the Tahoe TMDL documents to estimate the mean concentration of pollutants per event (e.g. a storm). The DEIS notes that the method primarily used to estimate EMCs (which uses automated flow samplers) could not be used for the project:

“EMCs represent the flow-weighted average concentration of a specific pollutant contained in stormwater runoff from a particular land use type and is typically evaluated through use of an automated flow-weighted composite sampler, collecting stormwater from a single sample site (and land use type) over the course of a storm hydrograph. Because of high pedestrian and vehicular traffic in the project area,

⁵ Final Draft: Bioavailable Nutrient Loading into Lake Tahoe and Control Opportunities with an Emphasis on Utilizing SEZs to Treat Urban Runoff. March 2000. Prepared for [TRPA] by Hydrosience.

automated sampling is not feasible and JBR scientists collected grab samples. The typical approach to calculating the EMC is not applicable because a single grab sample was collected at different locations within the project area at a single time in the storm hydrograph.”

- It is surprising that automated samplers were not used, per TMDL methods. In fact, Caltrans uses automated samplers in the Basin. Aren't they therefore used in 'high vehicular traffic areas?' What exactly made such samplers not feasible in this case? Have automated samplers been installed since the release of the DEIS? Given this is the standard method used for this calculation by the TMDL, and the purpose of this section is to analyze the project alternatives in terms of the TMDL (we note page 4.3-7 states: "...the TMDL methodology, in addition to current TRPA BMP guidelines, is proposed to be used to develop the Boulder Bay water quality program and performance targets..."), it is dismaying that TMDL methods were not followed.
- Further, the amount of runoff and concentration per volume of runoff is not linear. Automated samplers can account for the true 'nature' of stormwater runoff, including the most polluted volume of water – the "first flush" (see discussion in the previously referenced Hydrosience report)...whereas grab samples only provide one data point at one point in time, without any idea of the curve of the hydrograph or changes in concentration as the storm proceeds.

The Final EIS must address these questions and comments and include the additional data noted, as well as adequate data regarding the TSS and FSP concentrations that represent baseline levels and the estimated quantified reductions associated with each alternative.

2. Other questions regarding water quality discussions and appendices:

Page 4.3-10 states that "Groundwater was not encountered during investigations of exploratory borings or test pits." This conclusion is based on drilled borings in January 2007 and August 2008. The Jan. 2007 sampling drilled to a depth of 20 feet below ground surface (bgs). The August 2008 sampling drilled to 55 feet.

- Why were the depths different? Additionally, one would expect lower groundwater depths in August. How does time of year affect groundwater depth? How representative are these borings? Does Boulder Bay expect to be performing grading activities during the colder months (which would require approval from TRPA)?

P 4.3-27

The DEIS states "The underground parking garage will be regularly maintained and wash off will be directed to proposed stormwater treatment systems or the existing IVGID sewer system."

- Clearly the design should already have been developed as to how wash off will be dealt with. How can the project's impacts be evaluated if treatment strategies haven't even been worked out yet?

- Does the existing IVGID sewer system provide the same level of stormwater treatment for fine sediments and nitrogen and phosphorous as the stormwater treatment system would? What are the differences between these two options for treating the wash off? What are the resultant quantified impacts to fine sediment and nutrient loading to Lake Tahoe?

Page 4.3-29:

The DEIS states that Alternative C will “utilize pervious pavers and pavement on approximately 55,000 square feet throughout the project area to facilitate stormwater infiltration and reduce runoff volumes. Surfaces will be swept with a high-efficiency vacuum sweeper once in the fall, once in the early spring, and as necessary to preserve infiltration capabilities.”

- What other studies have been done in climates similar to Lake Tahoe which show that these impervious surfaces will not get clogged? What studies show the efficiency of these surfaces for a climate like Tahoe’s?
- What analysis is available to support the conclusion that sweeping need only be done twice per year?
- What is meant by “as necessary”? According to what criteria will the owners determine when it’s necessary to sweep in addition to the two ‘scheduled’ times? Will this information be a condition of the project approval?
- What is meant by a “high-efficiency sweeper”?
- How would the proposed sweeper function on sloped areas? For example, we have seen demonstrations of sweepers which can capture more fine sediments on a roadway compared to many ‘standard’ sweepers, however, this is due to the ‘suction effect’ provided by the vacuum’s connection to the roadway surface. Cracks in the roadway, sloped areas, etc., can reduce the ability of the sweeper to collect fine sediments.
- How well do sweepers work on pervious pavement and pavers? According to what information?

Page 4.3-32:

The DEIS states that “The degree of surface water quality improvement is inferred from engineering design objectives, BMP and stormwater treatment effectiveness ratings, and best available science...Post-project monitoring will determine the degree of predicted improvements to surface water quality and ensure that potential impacts remain at a less than significant level and that the expected above and beyond benefits are further quantified.”

- This last sentence does not make sense. The project, if Alternative C or D is approved, will be approved as a CEP project, and thus is expected to provide substantial net water quality benefits. This statement suggests that monitoring will ensure impacts are less than significant. To which ‘impact’s does this refer?

- What is meant by “are further quantified?” Does this mean there will be more extensive monitoring than what has been done thus far which will provide data adequate to quantify benefits? If such data aren’t already available, how can the EIS evaluate what the ‘benefits’ of each Alternative will be?

Page 4.3-33:

As mitigation for “HYDRO-1, the DEIS explains that if stormwater runoff from the project does not meet TRPA’s requirements, “the TRPA security deposit shall be used to implement additional water quality treatment needs in the East Stateline watershed and the project area.”

- How much will this security deposit be? In viewing past TRPA permits, the Security deposit has been just a few thousand dollars at most – not enough to adequately support “additional water quality treatment needs...” If the project applicant is relying on the Security Deposit to serve as mitigation, the amount of this deposit must be provided, and shown to adequately cover additional, best available control technologies that could be implemented in addition to the planned systems if post-project monitoring shows standards are not being met. What those controls would be and evidence supporting their effectiveness must also be included.

What type of fertilizer will be used? Will the project use landscaping that emphasizes native vegetation, which should require less ‘assistance’ to grow? This information must be provided in the FEIS.

How well will the ‘train’ of stormwater treatment systems operate when snow has fallen? Doesn’t snow affect the functioning of open basins? Will it make clogging more likely? All of the calculations on pages 4.3-40 to 4.3-41 appear to assume that only rain will fall.

On page 4.3-46, the document states that “The addition of LID strategies...will further decrease effective coverage and increase the overall treatment capacity of the proposed stormwater treatment system so that cumulative runoff from the project area that approaches the volume of a 100-year, 1-hour storm will be captured and treated.” The paragraph then later states “...the ability of the proposed stormwater treatment system to capture and treat the 100-year, 1-hour storm volumes.”

- Which is it? Will Alternatives C and D treat amounts “approaching” the 100-year storm or will they treat amounts that represent the 100-year storm?
- What data are available to show the claimed benefits of the green roofs, pervious pavers and stormwater catchments, which are claimed to increase the capture of the project from the 50-year storm to 100-year storm? Table 4.3-12 on page 4.3-47 shows “calculations” that supposedly support this claim, yet where are the calculations which show how these ‘extra’ design features reduce the runoff into the stormwater treatment systems?

The public must be provided the information upon which this conclusion is based.

- Additionally, calculations for these design features must be supported by data gathered in the Basin and/or areas with a climate similar to the Basin, and propose an adequate post-project monitoring program.
- If the intent is to “test” these features as part of a ‘demonstration project’ then the document: 1) can not yet claim that the 100-year storm event will be treated; 2) must include the post-project monitoring plan to test this assumption; and 3) must delineate the actions that will be taken by the developer if these design features do not perform at the assumed level (e.g. an adaptive management plan).

Page 4.3-51 discusses the cumulative impacts on water resources. The DEIS appears to conclude that there will not be cumulative impacts because individual projects in the Region have to follow existing regulations designed to prevent significant impacts. If this supposed justification was sufficient to analyze cumulative impacts, then why would NEPA and CEQA, let alone TRPA’s requirements, require a cumulative impact assessment? The answer is because this is not an analysis of cumulative impacts, but rather an excuse to attempt to avoid having to consider them. For example, TRPA’s Code allows for minor increases in transportation impacts from individual projects (i.e. Chapter 93 considers anything below 100 new daily vehicle trips [DVTs] “insignificant” for an individual project).⁶ A cumulative impacts assessment would therefore analyze the increased DVTs associated with the approval of, for example, 10 individual projects which each may generate less than 100 DVTs yet collectively, increase the DVTs in a given area by 1,000! Section 5 of the DEIS includes 14 pages of other projects in the area. What are the cumulative impacts of these projects on transportation, water and air quality? Water supply?

Although TMDL research has found that fine sediments are the primary cause of clarity loss, the nutrients nitrogen and phosphorus still cause about 1/3 of the loss of the Lake’s famed clarity. Further, the TMDL focus thus far is on the mid-lake clarity, whereas in recent years, negative impacts to the nearshore have grown substantially (.e.g. increased algal growth, invasive species, etc.). Some suggest that these impacts may be more related to the inputs of N and P to the lake than fine sediments. More research is needed, whether looking at mid-lake clarity or nearshore conditions, however the project’s impacts to N and P loading to the Lake must be examined.

However (as with FSP loading), the water quality analysis fails to identify the increases or decreases in these nutrients associated with each alternative. Further, the benefits of some of the stormwater treatment facilities (e.g. bio-retention basins) on N and P levels entering Lake Tahoe are uncertain. Research suggests that such systems that may help reduce P may actually increase the loading of dissolved N entering the Lake (Hydroscience, 2000). The EIS must consider all

⁶ <http://www.trpa.org/documents/docdownlds/ordinances/COCh93.pdf>

available science and analyze the impacts of each alternative on N and P concentrations.

III. Other Questions and Comments:

Section 6: Mitigation and Monitoring Program

SP-3 states that an “environmental monitor will be on site during demolition and construction to monitor and respond quickly to and correct any potential environmental issues that may arise...”

- What will be the qualifications required for this inspector? Given the size of the project area, is one monitor enough?

SP-4 requires a “Storm Water Pollution Prevention Plan” be prepared and implemented.

- When will the public get to review this Plan?
- What analyses will be performed to ensure the Plan prevents stormwater pollution?
- Are the mentioned strategies (e.g. filter fabric fences) still considered the best available control measures? How do these strategies relate to the Sediment Source Control Handbook findings? Caltrans’ findings?

SP-7 requires the use of bio-retention systems throughout the project area. The DEIS further states that “The engineered soil mix and vegetation in the bio-retention systems shall provide water quality treatment and infiltration similar to undeveloped areas.”

- Upon what evidence is this conclusion drawn?
- What are the impacts on N and P levels?

For SP-8, will the fertilizer management plan prohibit use of fertilizers once the landscaping vegetation is established?

- Are there types of fertilizers that can be used which contain either limited N and P and/or no N and P? Have alternative options been analyzed? For fertilizer type as well as landscaping choices?

SP-9 requires Post-Project BMP and Stormwater Monitoring.

- What is meant by preventing ‘accelerated’ erosion? The proponent is required to prevent all erosion.
- Is 5 years sufficient? According to what information?
- Why is TRPA contractor certification training only recommended, rather than required? What other qualifications will be required of the person performing this monitoring?
- What additional BMPs will be available if the monitoring shows erosion?
- Why are the water quality parameters listed on page 6-19 only ‘recommended’? The Plan must dictate which constituents are important for monitoring. The TRPA must require monitoring of pollutants that are clearly of concern.

- What is meant by “Fine sediment shall be monitored as specified by TRPA and future Lake Tahoe TMDL research directives?”
- For how many years post-project will Stormwater Monitoring occur?
- What stormwater discharge standards will the project have to comply with? What is the ‘net gain’ provided when discharge standards for Alternatives C and D (which must be more protective because these alternatives claim to be eligible for the CEP program) are compared to existing TRPA discharge standards?
- Will storm event monitoring capture the ‘first flush?’
- Can the project be designed to ensure that automated samplers can be installed? The document has already explained that the grab samples used for ‘existing conditions’ are not conducive to the methods used for calculating stormwater runoff; rather, automated samplers should be used.
- What adaptive strategies will be taken if monitoring indicates reductions are not being met? Who will be responsible to make corrections?
- Under “Miscellaneous Monitoring,” performance of the Bio-Retention Systems and TMDL reduction components will be ‘monitored in accordance with requirements and conditions outlined in the TRPA project permit.’ What will these requirements be? This information should be in the EIS, rather than put off until TRPA drafts a final project permit. How the project will be monitored plays a significant role in how successful the project is at providing the environmental benefits it claims.
- For how many years, post-project, will TRPA require annual monitoring reports? What will TRPA do with these reports? What public process will ensure the public has the opportunity to review and comment on these reports?

Because it is directly relevant to whether the project achieves the claimed benefits, as well as substantial net gains, the final EIS must include this information. We do understand some of this information may have been generated/obtained since the DEIS was released, and have been working to coordinate a meeting with the project developer and water and soil experts involved in the stormwater treatment plans to learn about this new information and discuss the stormwater treatment, monitoring and adaptive management being developed in greater detail. We look forward to these discussions, and expect the information will be included in the Final EIS.

Appendix G: Stormwater Management Plan

How were the calculations in this appendix performed? What assumptions and equations were used? Do the calculations take into account the soil’s capacity to infiltrate when fully saturated versus dry? (We understand additional calculations and/or modeling has been done regarding wet versus dry conditions and expect this information to be included in the final EIS).

What are the tables in Appendix G titled “BMP Contributing Areas – With TMDL Reduction Implementations” showing? What is meant by “[Contributing Areas] reduced by ...square feet for green roofs, pervious pavers, and so on? What is meant by “Total “Contributing Area?” Were these modified numbers used to calculate stormwater volumes? What was the purpose of these calculations?

The EIS needs to clearly explain how calculations were performed, what data were used and the source of that data, what equations were used, and what assumptions were made (and what were they based upon).

Appendix P: Boulder Bay Existing Conditions Stormwater Quality Report

How do the storms that were sampled by JBR Environmental Consultants, Inc. compare to a 20-year, 50-year storm and 100-year storm? How do the different precipitation rates affect the calculations?

Page 11 explains: “JBR does not have measured flow rates from the sampling that has been performed thus far...These loading estimates are to be used with caution. There is error associated with some components of the equations, in particular the flow rate of this curb and gutter runoff monitoring...Should Boulder Bay wish, JBR could install flow monitoring equipment inside some of the stormdrain inlets on the property.”

- How uncertain are these estimates?
- Did Boulder Bay subsequently request JBR install equipment as offered here? It appears JBR felt that valid locations existed which could support such equipment.

Page 12 states “The site runoff TSS load rate variability on an event basis ranged between 253 and 9,947 lb/day, across six storm events”

- This is a significantly large range! How reliable are the annual loading estimates given this extensive range? What are the loading rates if one used the load rate on the lower end of the scale and higher end of the scale? In other words, what is the range in annual loading? How much uncertainty accompanies the estimated annual loading rate of 34,450 lbs?

Appendix P discusses 6 stormwater sampling events. It also includes the estimated percent of total suspended solids in the fine size fraction for the latter 4 events. However, page 2 of Appendix R states “Storm water from two events was also analyzed for TSS less than 20 microns.” This is confusing. Do these appendices somehow refer to different samples?

Why were only two (or four) samples tested to determine the fine size fraction when clearly this is the most important factor with regards to water quality (and clarity) improvement?

What is “effective coverage”? Is this a new term within TRPA? Why is it not included in Code chapter 2? Is TRPA now regulating “effective coverage”? What discussions, when, and with what other agencies, entities, stakeholders and the public led TRPA to the use of this term?

On page 3, what is the difference between “Minimum capacity (TRPA Coverage): 100% of 50-year/1-hr storm” and “Minimum Capacity (TMDL Reduction Coverage):

100% of 100yr/1hr storm”? What is the definition of each? Where are the calculations supporting the claim that a 100-year/1hour storm can be treated?

On page 4, the discussion for “Pervious Pavement” states that “No reduction in performance was assumed during cold weather months.” The referenced footnote is a presentation made in Pennsylvania. Where are the actual data supporting this assumption? How do such references compare to Tahoe’s climate? Are the temperatures (daily to a range over months to years), and volume of rainfall/snow equivalent? We recommend the EIS analyze this based on the assumption that performance is reduced in cold months in order to incorporate a conservative analysis.

Additionally, the “Maintenance Plan” only includes a sweeper two times per year. How can this be sufficient? Why was this minimal “Plan” selected?

Under “Green Roofs” what is meant by “modeled performance: 20% landscaped”? Have green roofs been successfully used in climates like Lake Tahoe? How long were they monitored to confirm ongoing success? How do snowfall and freeze/thaw cycles affect the efficacy of green roofs to infiltrate rainwater?

Page 5 states that the stormwater treatment (SWT) Bio-Retention systems will reduce TSS by 90%. The report includes a footnote for a 2005 Guidance Manual.

- First, the information in the guidance manual that supports the 90% reduction result should be included in the EIS.
- Second, as stated previously, we researched the referenced 2005 Manual and found that the focus of this document (and specifically page 86 as stated in the footnote) was regarding the removal of heavy metals. We could not find any discussion on page 86 regarding the removal of TSS. At best, we found a quick reference on the previous page in this Manual that references yet another study, claiming a 90% reduction was possible. The public should not have to do this research to obtain the information used in the EIS analysis. Further, what we could find does not adequately support the stated 90% reduction.

We expect the Final EIS to have detailed SWT plans with evidence supporting the estimated load reductions. Such evidence should be readily provided to the public in the document and clearly show data supporting the reduction level.

Page 5 states that a Regenerative Air Street Sweeper will collect 70% of particulate matter and “road material that has a D50 of 20 microns by mass”. In other parts of the DEIS, including the previous page of this Report, the type of sweeper has not yet been determined (e.g. “Surfaces will be swept with a high-efficiency or vacuum sweeper...”) [page 4]. At what point was a Regenerative Air Street Sweeper selected and why is it not referenced elsewhere? What evidence shows that the Street Sweeper collects 70% of all PM? And the stated size of the PM? On exactly what kind of surfaces? How can sweeping the impervious pavers merely twice/year be sufficient?

Further, the table on page 6 “TMDL Reduction Parameters” appears to be a summary of the Plan. However, in the last row, it now states that a “Dustless sweeper removes dirt, dust and debris from the sweeping surface, and cleans the exhausted air to 99.999% of 0.5 micron size particles. What does “exhausted air” mean? Why is this reduction 99.999% whereas the previous page indicates D50 of 20 microns by mass?

The final section on page 5 specifies a reduction in vehicle trips and VMT from the project. See our comments on the inadequacy/inappropriateness of the Transportation analysis. The water quality analyses will have to be redone where estimates are based upon the highly flawed traffic analysis.

What is the date of the report in Appendix R?

IV Truckee River Operating Agreement (TROA) and water supply

Page 4.3-50 states that “IVGID provided an approval letter validating that the project will not significantly reduce the amount of water otherwise available for public water supplies in the service area.”

- Where is this letter?
- Not significantly reducing the water is not the same as not reducing the water. The DEIS fails to even include the anticipated increase in population from each alternative. This information is necessary to perform several analyses in the EIS, including the impacts of the project on water supply and demand. Given the limits established by the TROA, we are concerned the addition of hundreds to thousands more people to this area could substantially increase overall water demand. The individual project impacts certainly warrant consideration; however, the cumulative impacts of the 14 pages of projects outlined in the DEIS Cumulative Impacts (section 5), AND other projects planned around the Basin that will also increase the demand for water (e.g. Homewood Mountain Resort) must be analyzed. Yet the document contains no such individual or cumulative impacts analysis. The Final EIS must clearly perform an adequate analysis of the impacts of this project, and other projects in the Basin, on water supply.

We recently received a letter dated 1/7/10 from the Law Offices of Thomas J. Hall, addressed to Lew Feldman (attorney for the Proposed Project), stating that “This will advise that our client, as Seller, holds valid surface water rights in excess of 30.3 acre-feet...appurtenant to Lake Tahoe...which it is willing to sell to Boulder Bay, LLC...”

- The DEIS fails to identify the number of residents and guests associated with each alternative, and their associated demand for water. As a result, the public has no way to understand whether 30 acre-feet of water, as explained in this letter, is adequate for the project.
- How does 30 acre-feet of water compare to TROA limits and cumulative water usage?

- Is the existing owner using the 30 acre-feet of water already, or is this merely a water right on paper?
- Do paper water rights on the NV side of the Lake equal actual water usage as limited by TROA (11,000 acre-feet/year)?
- What are the cumulative impacts of projects included in the Cumulative Projects section of the DEIS on water supply? How does this compare to existing water usage? TROA limits?

Further, merely having a letter from an attorney saying his client has water rights is not minimally adequate. What proof can the public see and investigate? We have spoken with several people associated with the TROA and have been advised that, once implemented, and if thereafter, Nevada's share is reached, the water is turned off. The public has a right to know that Boulder Bay will, under no circumstance, later file for an exception under TROA for more water if, for example, we experience a drought year or period of years.

PSU-1B: Water Rights Dedication (page 6-43)

The mitigation includes no consideration of TROA or the water supply limits placed upon water use in the Basin. Further, because the DEIS has failed to evaluate the anticipated population increase for each alternative (compared to *existing* conditions – not hypothetical estimates of “full capacity”), there is no way the EIS can conclude that adequate water rights/supplies exist. Golf courses and ski area snowmaking are two substantial uses of Nevada’s limited water rights in the basin. It will be necessary to determine the “existing” use of commercial, residential, public, and recreation use to assess the actual amount of real water currently used in the Nevada portion of the basin, in order to support the transfer of ‘paper’ water to the development.

V. Proposed Building Heights

We add one final note regarding the proposed heights of the buildings in Alternatives C and D. The extensive increases in the number of buildings and their associated heights in the project area would be a vast change for the North Stateline area, one not foreseen in the previous planning efforts (i.e. PAS and Community Plan development). We are concerned about the impacts on the community and scenic quality of this increase in the bulk in both height and width of the project.

We expect the FEIS to:

- Fully analyze the issue of the expanded visual impacts in light of existing conditions;
- Include a definitive discussion of the final project's impacts on both the scenic views from Highway 28, and from the Lake, as delineated in the scenic threshold standards.
- Include accurate visual representations of these views.