



**Tahoe Area
Sierra Club
Group**

March 24, 2009

Tahoe Regional Planning Agency
P.O. Box 5310
Stateline, NV 89449

RE: Comments on the Proposed Blue Boating Program

Dear Mr. Chair and Members of the Governing Board,

Thank you for this opportunity to provide comments on the Proposed Blue Boating Program. The proposed Blue Boating Program fails to mitigate for the boat pollution that will result from new development along the shoreline, increasing boat use, as well as current boat use that has adverse environmental effects. Specifically, the Blue Boating program contains no substantive methods and scientific verification to successfully and quantifiably reduce boat pollution and therefore remains wholly inadequate. Moreover, an effective monitoring program should have been established prior to the adoption of the October Shorezone Ordinances.

Furthermore, TRPA's thresholds for water quality, air quality, and noise are currently out of attainment. In fact, in the last TRPA Threshold Evaluation (2006), 6 out of 8 air quality standards, 6 out of 7 water quality standards, and all 3 noise standards were out of attainment. In other words, only 3 of 18 standards relating to water and air quality and noise were actually in attainment. Because these standards are impacted by boat use, according to the Compact, until these threshold standards are attained through an effective pollution reduction program, any additional shorezone development and increases in boat use is highly questionable when drastic pollution reductions are necessary.

Thresholds in Non-Attainment

Increased boating will continue to adversely impact many thresholds that are already out of attainment. For example:

- Boats emit high levels of nitrous oxides (NOx) and hydrocarbons (HCs), the two precursors to ozone formation. The Basin has exceeded TRPA's one hour ozone standard every year since its adoption over 20 years ago. More recently, the Basin has exceeded California's 8 hour standard over the last three years, and in 2008, the Federal 8-hour standard as well. Ozone can have profound impacts on both human and vegetative health. Even short term exposure to low concentrations of ozone can result in severe and potentially permanent damage to the upper respiratory tract and lungs. Ozone also has detrimental effects on plant growth, which can make Tahoe forests more vulnerable to drought conditions, disease, pest infestation, and increase wildfire danger. Climatic warming will only exacerbate photochemical production of ozone during the summer, as well as expand ozone formation during the fall and spring.
- Air Quality standards for particulate matter (PM) have also been exceeded in the Basin in recent years. Recent research by U.C. Davis suggests that atmospheric deposition of PM_{2.5} will increase as a result of climatic warming in the Lake Tahoe Basin and compound the challenges to achieve TMDL pollution reduction targets to improve Lake clarity.
- In the last survey, almost 40% of all motorized boats exceeded the noise standards.
- The non-attainment of the clarity standard is well known and the negative trend continues. Boats contribute fine matter directly into the water column, as well as to the atmosphere, that can degrade Lake clarity.

TRPA must take measures to bring thresholds into attainment without delay and not accentuate the problem. TRPA needs to formulate, implement, and with credible third party scientific review, prove effective measures to fully mitigate boat emission pollution from Shorezone-related activities *prior* to the adoption of regulations that would add more development and pollutant sources to the Lake.

FEIS Baseline Inadequate

One of the major components of the Blue Boating Program is *encouraging* boaters to properly tune their boats to high altitude and apply correct prop pitch. However, the FEIS analysis calculated current boat pollution based on CARB data that assumed that boats entering Lake Tahoe were *already* properly tuned. Therefore, requiring boats to be properly tuned cannot be considered mitigation and 100% compliance will be needed to merely meet baseline emission estimates. Additionally we are concerned that the average estimates for boat size, load factors, fuel efficiency, and fuel efficiency at high altitude were underestimated in the FEIS. Please see Appendix A for more details. All of these underestimated factors necessitate a higher level of required emissions mitigations.

Baselines, Mitigation Requirements, and Threshold Requirements

The TRPA must establish an accurate baseline of current boat pollution and this should have been calculated many years ago. The current “baseline” already represents threshold a non-attainment condition, thus TRPA must demonstrate threshold attainment first (which will require substantial pollution and emission reduction measures) before adding any more development or pollution sources. In other words, until the current appropriate and applicable threshold standards (air, water, noise, etc...) are achieved, only pollution reduction source control measures can be undertaken, with additional shorezone development on hold until that time. Additionally, TRPA must recalculate expected pollution impacts from the trend of increased boat use on Lake Tahoe using proper source data, load factors, altitude adjustment, etc... The FEIS was flawed in its emission analysis and underestimated emission estimates, including particulate matter which has been determined to have significant effects to Lake clarity. Furthermore, by averaging boat pollution contribution on an annual basis, the TRPA staff summary on the Blue Boating Program is mischaracterizing the percentage contribution of particulate matter from boats during the *summer* boating season, when Lake clarity is most adversely affected (and when the release of ozone precursors is most threatening to human health). Third, a mitigation program must be developed that reduces boat pollution to levels which achieve and maintain the thresholds.

Unaccountable Emission Differences

The TRPA has no data regarding the additional emissions created by boats that are improperly tuned and have incorrect prop pitch compared to boats that are properly tuned with correct prop pitch. Because TRPA utilized data that already assumed proper tuning and propeller pitch in its FEIS emissions calculations, these efforts do not qualify as mitigations, but only as requirements. Additionally, TRPA has acknowledged that it will be difficult to confirm that a boat is tuned properly or if the propeller pitch is correct. Thus, it is expected that some boats will operate on Lake Tahoe without proper tuning, thus generating additional emissions above the levels as asserted in the FEIS, for both “current” and future analyses. How will the TRPA be able to determine the pollution contribution from improperly tuned boats? What would the pollution reduction be if the TRPA only allowed self-tuning engines on the Lake?

Furthermore, there needs to be a quantification of the pollutant impacts from the new boat usage associated with “new” shorezone structures (moorings, etc...) on the Lake that accommodate boats. “New” includes any structures not previously authorized by TRPA, a state agency, the Army Corps of Engineers, or has been proven to exist in the Lake prior to February 10, 1972.

Long Term Boating Trends

The TRPA continues to assume that boating will decrease, but how much of this has been temporary in recent years due to high gas prices and economic conditions? The overall trend has indicated an increase in boater registration throughout the United States with most of the growth incurring within the Western States. The most recent analysis (just released last week: March

17, 2009) performed by the National Marine Manufacturer's Association demonstrates that boat registration is increasing. In 2007, California alone experienced an 8% increase in boat registration. Therefore, it is imperative that TRPA study long-term, not short term, historical boat ownership trends specific to Lake Tahoe. What happens in Nevada and California statewide does not always translate directly to what is occurring in Tahoe. Furthermore, the type of boats that are increasing and decreasing is important. For example, if sailboat registration is decreasing, but ski boat registration is increasing, then there will be an overall net increase in boat pollution. TRPA needs to look at the increase in boating that has taken place over the last twenty years and predict future increases in boating on a twenty year trend.

Potential Mitigation Opportunities

Boat pollution adds hydrocarbons, nitrous oxides, particulate matter, and other pollutants to the water and air that are virtually impossible to remove. During one hour of operation, the average ski boat used is 1600 times more polluting than a Subaru Outback for hydrocarbons and nitrous oxides. The only way to adequately mitigate for boat pollution is to prevent the addition of pollutants to begin with.

TRPA is proposing a Blue Boating Program based on public outreach, boater honesty and/or assumed mechanical expertise, sealed toilets, and free sponges. The Blue Boating Program basically functions as an education and information gathering exercise that may produce some minor benefits to the Lake. Will these measures assure Threshold attainment? Clearly, they will not. A measure that has been effectively utilized by the automobile industry for decades is the use of catalytic converters. Boats with catalytic converters are the only boats given a four star engine rating by the California Air Resources Board (CARB). By requiring that all boats on Lake Tahoe be outfitted with a catalytic converter, TRPA could reduce hydrocarbons and nitrous oxides by as much as 70%, although other pollution reduction methods (such as limitations based upon engine star ratings, etc...) would likely be needed to achieve its mandated threshold objectives. The TRPA needs to rise to the occasion and demonstrate exemplary leadership skills by instituting a suite of real mitigation strategies much like its non-fuel injected two-stroke engines ban. This suite of methods should have already been formulated, tested, and proven scientifically successful as a prerequisite to approval of the Shorezone Ordinance in October of 2008.

It is imperative to note that although many of these suggested strategies may assist in reducing boat pollution, they cannot be counted on as part of a comprehensive, technically-adequate assessment of how to reduce boat pollution to attain and maintain affected thresholds.

Self-certification Unreliable

Regrettably, the major mitigation component of the Blue Boating Program relies solely on the honesty and goodwill of boaters to properly tune their engines and apply correct propeller pitch.

Boaters will not be required to obtain certification from a mechanic nor will inspectors be able to examine the boats for compliance. As the GB packet states, “these measures will not be a requirement since inspecting for these elements is extremely complicated if not impossible.” As noted earlier, without 100% compliance, even if there is no increase in boating, TRPA will fail to achieve the “theoretical” FEIS baseline emission estimates, let alone mitigate for expected pollution from increased boating.

TRPA is depending upon the assumption that once a boater is educated they will correctly tune their boats for altitude because it is the economical choice. However, a visitor transporting their boat from the Bay Area for the weekend would have to tune their boat for Tahoe and then pay again to have it tuned back again for sea level, thereby incurring twice the expense. These visitors may decide it is more economical to pay an additional amount in gas and forgo an engine tuned to high altitude rather than making the best choice for the Lake. According to TRPA, tuning a boat is “more art than science” and boats can often not be properly tuned until already on the Lake, even boaters that do want to tune their boats to protect Lake Tahoe will find it difficult to truly comply (unless the engine is self-tuning).

Noise Mitigation Measures Insufficient

The most recent study conducted on boat noise demonstrated that over 40% of motorized boats exceed the noise standard. The Blue Boating Program proposes to prohibit boats with modified exhaust systems, as is already the case in Nevada. Of this 40%, how many are exceeding the noise standard because they are dispelling exhaust improperly? Without this information, it is unclear how this measure will move all boats on Lake Tahoe into compliance with the noise standard. How can TRPA plan to add additional boats when TRPA cannot manage or enforce current noise violations? We hereby incorporate by reference comments provided in our Noise Limitations Comment Letter dated 2/20/2009.

On page 148 of the Board Packet there is a ‘potential mitigation measure’ which restricts boats from entering the Lake if they exceed the standard. First, this should not be a “potential” mitigation measure, but rather, an existing requirement per the noise threshold. This is particularly true because TRPA is already out of threshold attainment for all three noise standards.

A noise mitigation program needs to include the requirement that **all** boats entering Lake Tahoe are tested and **any and every** boat that exceeds the TRPA noise threshold standards is denied use of the Lake. Boats need to be tested at the ramp, on open waters, and from the shoreline (as outlined in the methods associated with TRPA’s “three” boat noise standards).

Inappropriate Use of Mitigation Funds

Boat pollution mitigation funds must be distributed to programs that directly reduce exhaust emissions and boat generated noise, as well as the monitoring of these standards. It is imperative that these funds be dedicated to threshold achievement and maintenance consistent with the Compact. It is inappropriate to use the mitigation funds to subsidize Advanced BMPs for private Marina owners. Utilizing advanced BMPs is a strategy to address impacts from on land sediment sources and is unrelated to boat emissions. Along the same lines, although, the treatment of Asian Clams and Milfoil are imperative to the ecological and scenic health of Lake Tahoe, other fund sources need to be considered such as SNMPLA/EIP funds or in association with AIS programs.

Inadequate Fee Schedule

The proposed sticker program fees will not generate a sufficient amount of funds to adequately mitigate the pollution impacts from the boats associated with the new structures (buoys, piers, slips, etc...) allowed on the Lake.

Second, the proposed fee schedule is inadequate in that it does not take into account that low engine star ratings and boats with larger engines are not required to pay a proportionally adequate fee commensurate with their measurable pollution impacts. As the TRPA proposes, a 2006 Cobalt ski boat (containing a Volvo 5.7 Liter engine) with a 239 HP engine polluting 652 grams per hour of operation for NOx and HCs would have to pay a fee of \$60. On the other hand, the twin engine Mercury Racer jet boat has a combined horsepower of 634 kilowatts and pollutes 2232 grams per hour of operation, and pays a fee \$100. Although the Racer is 3.4 times more polluting than the Cobalt, the owner would only be required to pay 1.5 times more for the Boating Sticker. Users need to be paying fees commensurate with their pollution levels.

TRPA must redesign the sticker fees to adequately account for the actual pollution caused by individual boat engines and must raise the fees overall in order to provide adequate mitigation and monitoring programs. Boat users on a lake with a strict ONRW anti-degradation policy need to pay a sticker fee based not only on total horsepower, but also star rating, boat length, mass, hull type, and load factors.

Combining of AIS and Blue Boating Inspections

Although combining the AIS and Blue Boating inspections will streamline the inspection process several concerns remain. First, new inspector duties associated with the Blue Boating may increase the amount of time for each inspection, as well as increase the time required for training. Thus, the number of AIS inspectors envisioned for the 2009 boating season is likely inadequate given these additional duties. Additional inspectors will likely be needed to avoid significant delays at inspection sites. Members of the APC also asked about the additional time it will take to complete an inspection. Staff indicated it was "not much more" than for an AIS inspection alone. However, we recommend TRPA perform tests to determine the extra time required to

complete the additional BBP inspection duties (and include this information in the March documentation for GB and public) and use this to guide the number of inspectors that will be needed. The AIS inspections are critical for the protection of the Lake, thus there must be an adequate number of inspectors to ensure that the quality of the AIS work is not sacrificed or compromised by the addition of the BBP duties.

Second, the TRPA is planning to distribute stickers free of charge for the initial 2009 season. As the number of inspectors is likely to be inadequate, the TRPA should be charging a fee for this program from the onset; funds can be used to hire additional inspectors.

Inadequate Monitoring

The BBP relies heavily on reacting to monitoring data *in the future*. Yet the monitoring network has yet to be developed, scientifically peer reviewed, implemented and proven operational. Monitoring in the Shorezone is needed, and installing and operating a monitoring network (for air, water and noise) will first require extensive work by regulatory agencies, the scientific community and the public. This work must be done, and the network installed and operational, and baseline conditions monitored to create reference conditions, *before* pollution sources are increased. According to the current schedule in the packet, the monitoring network for air quality and noise has not even been developed, and TRPA does not plan to present an updated program of work (for the Adaptive Management Program) until March 2010 (page 83). Extensive resources will be needed to install a fully functioning network of air and noise monitors.

Air quality monitoring sites need to be measured for the following four threshold standards: carbon monoxide, ozone, particulate matter (mass and speciation), and atmospheric nutrient loading. Air quality standards are designed to protect both human and ecological health as well as lake clarity. Funding sources need to be identified and the funds secured. Initiating Blue Boating fees in May of 2009 would help with monitoring expenses.

The water, air and noise monitoring program must be scientifically defensible with a proper number of sampling sites that monitor water column and atmospheric conditions at areas with high concentration of motorized boat traffic in close proximity to populated areas with beach going activities; and for noise, monitors are especially important near sensitive areas, areas used for non-motorized recreation, areas where wildlife are impacted and areas where existing noise is close to or exceeding the assigned PAS standards. In addition, triggers must be developed with appropriate response protocols (i.e. boat closures in Emerald Bay when pollution levels within the Bay are found to be at some value [termed a 'trigger' value] close to water and/or air quality standards). For example, when CO concentrations reach a pre-determined value slightly below the federal standard (the 'trigger' value), a contingency plan is implemented promptly to prevent any exceedences of the standard (the 'response'). Performance standards, triggers and the

associated immediate responses to prevent further degradation when triggers are reached must be completed and scientifically accepted prior to allowing more of the sources of pollution.

The first year of the BBP contains “implementation and effectiveness” monitoring, although seemingly not complete until well after the 2009 boating season. However, TRPA will be unable to answer many of the example questions listed on page 180-181 of the March 2009 GB Packet without actual, on-the-ground environmental monitoring. For example, one cannot determine whether measures have ‘reduced air pollution from baseline levels’ without monitoring data to first obtain the baseline levels and then measure the levels experienced after measures are successfully implemented.

Adaptive Management Programs (AMPs) are intended to first develop a solid mitigation program that addresses all impacts, but gives managers the ability to make changes if needed. However, TRPA is using the AMP as an excuse to postpone mitigation until a later time. We also incorporate by reference related comments from our March 2009 letters regarding the Adaptive Management Program.

Monitoring Comparison for Seasons

During the summer season, boats contribute to a significant amount of pollution in the Basin, while winter time emissions are extremely low. Therefore, by monitoring emissions during each season and comparing the differences (and accounting for other parameters, including meteorology), TRPA may be able to better differentiate the amount of pollution derived from boating compared to other sources such as automobiles.

Furthermore, summertime particulate matter pollution will have a greater impact on annual clarity measurements. Summer is the time of year when clarity is at its lowest. If additional particulates are added at this time of year then summer clarity numbers will decrease even more and will affect the overall year long average. Also, climate changes research suggests that atmospheric deposition will greatly impact clarity in summer months, with increased temperatures producing a more hospitable environment for micro-phytoplankton to grow.

Beyond Particulate Matter

Although the mitigation program must ensure that no additional particulate matter is discharged from increases in boating, the mitigation program is also responsible for other thresholds and associated standards that are impacted from increased boating. The water quality standard for phytoplankton primary productivity is in non-attainment, a standard that is impacted by the amount of nitrogen and phosphorus deposited into the Lake. Nitrous oxides emitted by automobiles and boats are converted to forms of nitrogen that can be used by phytoplankton and contribute to reductions in clarity. Atmospheric Nutrient Loading is the Air Quality Threshold Standard that protects the Lake from nitrogen species, which include nitrous oxides (NO_x). According to the 2006 Threshold Evaluation Report, “The majority of nitrogen loading to Lake

Tahoe appears to be from atmospheric deposition presumable from gasoline engine exhausts, and may be difficult to control without very effective transportation management and projects to reduce emissions.” Granted the difficulty and importance of reducing nitrous oxides and the fact that the average ski boat used on Lake Tahoe is 1600 times more polluting per hour of operation than a Subaru Outback for nitrous oxides and hydrocarbons, it is imperative that the TRPA protect the Lake from significant amounts of nitrous oxides that will be deposited onto Lake Tahoe by an increase in boating. To outline the egregious nature of boat pollution, imagine one ski boat operating for two hours. Now imagine lining up 1600 Subaru Outbacks and having each one make one car ride around the Lake. These two actions produce the same amount of pollution.

Currently, the TRPA does not even have the capability to determine whether this nitrogen loading threshold standard is in attainment. If the TRPA does not have the capability to do this, how will the TRPA be able to quantifiably determine the impacts of the Shorezone Ordinances and the effects of proposed mitigation program on nitrogen deposition?

Additionally, as previously mentioned, nitrous oxides are precursors to ozone, another threshold standard for which the TRPA is out of attainment. While particulate matter is extremely important, the Governing Board cannot forget about these other standards for which the Blue Boating Program must mitigate.

Inappropriate Mitigation

Furthermore, it is inappropriate for the TRPA to assume that future improvements in boating technology that could potentially reduce boat emissions can be counted as mitigation for increases in boat use created by the Shorezone Ordinances or from general and expected increases in boat use that TRPA proposes to accommodate. This is especially true because Lake Tahoe is designated under the Federal Clean Water Act as an Outstanding National Resource Water which affords it strict anti-degradation protection. A proper mitigation program needs to respond now to the effects of boat pollution that are currently adversely affecting the threshold standards as well as fully mitigating for any new impacts.

TRPA must Mitigate for ANY Increase in Boat Pollution

The TRPA must mitigate not only for increases in boat pollution created by the Shorezone Ordinances, but must mitigate for all future increases in boating. Page 143 of the March 2009 Governing Board Packet states “The recently adopted Shorezone Amendments include a Boat Pollution Reduction Program (Blue Boating Program) as early mitigation to address the environmental impacts associated with increased boating in Lake Tahoe over time.” The Packet states on page 136 that “The program...will prevent or mitigate adverse environmental impacts estimated to be associated with future increases in boating, including those that would occur regardless of implementation of the recently adopted shorezone program.” Furthermore, page 139 states that the program “was created as a mitigation to offset increases in boat pollutants that derive from increases in boating, as directed in the Final Environmental Impact Statement...” Finally, page 140 reads, “Whereas, the Blue Boating Program is designed to mitigate the impacts from any increases in boating on Lake Tahoe...”

6.3 and 6.5 Findings Cannot be Made

6.3 (1) The Blue Boating Program is not consistent with the Code because the code requires that the Blue Boating Program adequately mitigate for boat pollution. Currently the proposed Blue Boating program is wholly inadequate at mitigating for boat pollution.

6.3 (2) The project will cause the environmental threshold carrying capacities to be exceeded because air, water, and noise standards are already in exceedance. There will be increases in boat pollution because there will be increases in boating and the Blue Boating Program cannot adequately mitigate for these increases in pollution nor has it yet to demonstrate that it can adequately reduce existing boat pollution to meet threshold standards.

6.3 (3).

The Blue Boating Program does not meet and will continue to exceed the federal, state, and local standards for water and air quality because these standards are already being exceeded and the Blue Boating program is not adequate at mitigating for additional increases in boat pollution, let alone mitigating for current pollution levels. For example, the Tahoe Basin has been out of compliance with the TRPA, California, and Federal Standards for ozone. Particulate Matter standards have been exceeded for both TRPA and California. Furthermore, Lake Tahoe has a Federal ONRW non-degradation standard, so any unmitigated increase in boat pollution, including hydrocarbons, means that standards have been exceeded.

6.5

6.5 states that the amendment must achieve and maintain thresholds. However, because this program was designed to mitigate for additional increases to threshold violations, but fails to adequately mitigate for these increases, the program does not achieve and maintain the thresholds for air quality, water quality, and noise thresholds.

Conclusion

The proposed Blue Boating Program is wholly inadequate at mitigating for the expected boat pollution that will be caused from increased boat use and new development within the Shorezone. A proper mitigation program has yet to be formulated and detailed. However, even before a true mitigation program can be developed, extensive information gathering and public outreach is needed. The education and survey components of the proposed BBP, with modifications and additions proposed herein, in addition to the development, installation and operation of adequate monitoring networks (in cooperation with the scientific community), must be completed first and baseline levels established. Only then can TRPA determine substantive mitigation measures which will achieve and maintain thresholds. Additionally, adaptive management programs are intended to provide managers flexibility to adapt *already developed programs* when science dictates the need; however, without monitoring, there is no way for TRPA to determine when adaptations are needed, what changes are needed, or when programs have been successful. Additionally, without reference conditions, there is no baseline for TRPA to use as the basis for adaptive management.

The March 2009 Governing Board packet states that “the goal of the Blue Boating Program is to.....protect Lake Tahoe from pollution before problems ever arise.” The TRPA’s efforts to

protect the Lake have fallen short as demonstrated by their failure to attain noise, air and water quality thresholds. Not only has the TRPA continued to be unsuccessful at mitigating for past pollutants, but now TRPA proposes to add additional pollutants without creating truly successful and quantifiable mitigation practices that will adequately protect Lake Tahoe.

In conclusion, Any new shorezone development cannot be allowed until the Blue Boating Program and the mitigations for other impacted thresholds are fully implemented, funded, and scientifically verified.

We appreciate the opportunity to provide comments and if you are in need of further information please contact us at 530-541-5388.

Thank you

Carl Young
Program Director
The League to Save Lake Tahoe

Jennifer Quashnick
Consultant
Tahoe Area Sierra Club

APPENDIX A (Inadequate Baseline estimates)

- The estimation of total fuel usage per watercraft and engine type (JD Fransz 2002) may have underestimated pollutants based upon the proportion of engine types. It is also presumed that these estimates included already properly tuned boats. There was no data provided on the numbers or pollutant contributions from improperly tuned boats.
- The FEIS underestimated the fuel consumption in gal/hour for watercraft based upon the TRPA Boating Assumption. The fuel efficiency of boat engines has been understated.
- The length of boats underestimated the composition of boats on the Lake, as the estimate indicates that only 1 in 15 boats is in excess of twenty feet. This is a dramatic underestimate. A survey of boats at local marinas would demonstrate this. Larger boats are generally heavier and require greater horsepower engines for propulsion and consume more fuel per hour of operation, thus a higher proportion of larger boats will generate more emissions.

- The FEIS used California DMV data, but this is not a true reflection of boats used in Tahoe, which are larger than average and require bigger engines to compensate for the altitude differences.
- The FEIS did not analyze fuel purchased at all marinas around the Lake to help justify the estimates of fuel consumption analyzed in the FEIS. Please note that even this was underestimating true fuel usage on the Lake, because most boaters would fuel their boats prior to launch and utilize 5 or 6 gallon gas containers for refueling their vessels.

APPENDIX B (Potential Boater Survey Questions)

- What was your duration of time on the water?
- How many hours of operation?
- How much fuel did you purchase?
- Where did you purchase your fuel?
- What destinations did you visit?
- How many people were on your watercraft?
- How long is your boat
- What is the make and model of the watercraft
- What type of motor do you have?
- What is the manufacturer of the engine?
- What is the hull type?
- How often do you launch your boat in Lake Tahoe?
- What other lakes do you boat on?
- When was your boat last tuned?
- What is the engine star rating of your watercraft?
- Does your watercraft have a catalytic converter?

APPENDIX C (Additional Details)

- Page 136 states that the Blue Boating Program is effective in 2008, but this is not correct.
- The Blue Boating Program should NOT?? be compared to the 2-stroke watercraft controls because the two-stroke ban was a true pollution reduction effort.