



Tahoe Regional Planning Agency  
Attn: Rebecca Cremeen  
128 Market Street  
Stateline, NV 89449  
[rcremeen@trpa.org](mailto:rcremeen@trpa.org)

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**Subject: Final Environmental Impact Statement for the Lake Tahoe Shoreline Plan**

Dear Members of the TRPA Governing Board and staff:

The Friends of the West Shore appreciates the opportunity to provide comments on the Final Environmental Impact Statement (FEIS) and associated documents for the Lake Tahoe Shoreline Plan. The Friends of the West Shore (FOWS) works toward the preservation, protection, and conservation of the West Shore, our watersheds, wildlife, and rural quality of life, for today and future generations. FOWS represents community interests from Emerald Bay to Tahoe City.

We would like to thank TRPA staff for working with us to identify revisions to the proposed plan to address many of our concerns. We are pleased to see revisions to the FEIS that will:

- Increase funding for enforcement, improve collaboration among multiple enforcement agencies through a Memorandum of Understanding, and create a working group to address ongoing enforcement activities and issues;
- Include baseline water quality monitoring for hydrocarbons and additional nearshore turbidity monitors and associated cameras to evaluate boat impacts;
- Conduct baseline on-lake ozone monitoring;
- Fund actions that will benefit non-motorized recreation, including funding toward the Lake Tahoe Water Trail program and other activities that will improve public education;
- Increase No-Wake-Zone protections for non-motorized recreation users;
- Fund the purchase of additional noise monitoring equipment and improved monitoring;
- Establish a lake-wide prohibition on boats with exhaust systems that violate noise standards;
- Reduce the extent of new dredging compared to the proposed plan in the DEIS; and
- Incorporate additional items into the boat inspection program to address noisy boats and clean boating practices.

As the attached comments reflect, we still have some remaining questions regarding the details of certain aspects of the proposed plan as well as recommended improvements. However, we also appreciate the revisions that have been made to respond to public comments on the DEIS and look forward to ongoing collaboration as a new shoreline plan is implemented. Please feel free to contact Jennifer Quashnick at [jqtahoe@sbcglobal.net](mailto:jqtahoe@sbcglobal.net) if you have any questions.

Sincerely,

Judith Tornese,  
*President*

Jennifer Quashnick,  
*Conservation Consultant*

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## Enforcement

### **Buoys:**

The Final EIS package outlines a process for phased buoy permitting.<sup>1</sup> It appears that no new buoys (buoys not currently on the lake) will be allowed until the existing illegal buoys,<sup>2</sup> estimated by the DEIS to be around 490, have been removed. The Shoreline Implementation Plan (SIP) explains that it will require at least one full boating season to determine the status of existing moorings, therefore new applications will not be processed until 2020, however the SIP does not explicitly state that where existing moorings are found to be illegal they will be removed *before* new mooring applications are approved. We recommend this be clearly stated. FOWS would not support the addition of new buoys until all illegal buoys have been removed.

### **No-Wake-Zone:**

FOWS appreciates the inclusion of a second boat crew and additional mitigation fees to fund improved No-Wake-Zone (NWZ) enforcement, as well as the new MOUs with other entities and associated watercraft task force/shorezone enforcement and education working group (the SIP refers to this group as the ‘watercraft task force,’ while the multi-agency MOU<sup>3</sup> refers to the ‘shorezone enforcement and education working group;’ we recommend this be clarified).

As the FEIS reiterates, enforcement of the NWZ will be key to reducing/avoiding numerous environmental and public health and safety impacts of motorized boating. We appreciate the additional discussion in the FEIS and staff summaries regarding the areas of highest potential

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<sup>1</sup> “Second, TRPA will authorize new moorings for permitting only after determining the status of existing moorings. This likely will require a full permitting season so that new mooring applications will not be processed until 2020.” (Staff summary, p. 478)

<sup>2</sup> Buoys which have no permit(s) from TRPA, CSLC, NDSL, USACE, and did not exist prior to 1972. In other words, new buoys that do not qualify under the buoy recognition program. (FEIS App. A, p. 9)

<sup>3</sup> Staff summary, p. 919

conflicts and highest likelihood of boaters violating the NWZ.<sup>4</sup> As the staff summary notes, the enforcement crew has limited presence in the listed areas due to the size of the lake. We remain concerned that a second boat crew may not be sufficient to adequately enforce the NWZ around the entire lake.

As noted in the FEIS, TRPA cannot chase down violators, although the FEIS does not identify how frequently speeders continue to violate once notified by the TRPA boat crew. Further, the SIP mentions TRPA's use of signage to notify violators, however the FEIS does not provide any information regarding the size and success of these signs. It is also unclear how TRPA and partner agencies will handle violators who 'outrun' the boat crew (or how often this occurs).

In addition, we anticipate that law enforcement and emergency service providers on the lake will continue to prioritize addressing emergency situations above NWZ enforcement, thus making TRPA's boat crews the only *consistent* NWZ enforcement personnel on the lake.

However, we are encouraged by the inclusion of other elements that can assist with proper adaptive management, including additional noise monitoring, recreation surveys (especially with regards to impacts to non-motorized recreation), enforcement MOUs and the associated watercraft task force, and funding toward public education and outreach. We hope that the combination of increased education and enforcement will reduce NWZ violations, protect public health and safety, and reduce noise, as the FEIS concludes. If it does not, additional efforts will need to be swiftly taken through the adaptive management process.

#### **Additional enforcement information:**

In our DEIS comments we provided examples of specific parameters related to enforcement that could be evaluated. While some additional information has been provided in the FEIS, many details that would be beneficial in assessing enforcement capabilities and ways to improve them have not been provided or are said to not be available. We recommend that detailed information be gathered as the new plan is implemented so that improvements may be made in the future; it is anticipated that new aspects of the plan (i.e. boater apps, survey data, working groups) may provide some of these details.

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<sup>4</sup> "Listed below, TRPA has identified areas with of heightened recreation user conflict and a higher likelihood of boaters violating the TRPA no-wake zone. The watercraft team focuses its attention on these areas; however, they have a limited presence due to the size of the lake.

- Nevada Beach State Park
- Tahoe Keys
- Camp Richardson Marina
- D.L. Bliss State Park
- Sugar Pine Point State Park
- Tahoe City
- Emerald Bay
- Kings Beach
- Incline Village
- Sand Harbor State Park
- Cave Rock
- Zephyr Cove"

(Shoreline Implementation Plan, Staff summary, p. 484)

### **Expanded inspections:**

We support the enhanced watercraft inspections that will include the type of exhaust system and proper sewage disposal.<sup>5</sup>

## **Monitoring and Adaptive Management**

### **Monitoring:**

Our DEIS comments identified the need for the FEIS to include shoreline-specific monitoring. Based on revisions to the FEIS, the following monitoring has been added or enhanced:

- Water quality:
  - TRPA has committed to purchasing two nearshore turbidity monitors and associated cameras estimated at \$130,000
  - TRPA will work with UC Davis and the Tahoe Environmental Research Center (TERC) to perform baseline hydrocarbon monitoring during peak periods in the first year of the program to confirm previous measurements and EIS assumptions
- Air Quality:
  - TRPA has committed to working with the Desert Research Institute to perform on-lake monitoring during peak days for the first season of the program
- Noise:
  - TRPA will purchase additional noise monitors and cameras and fund additional staff time toward monitoring
- Recreation:
  - Expanded recreation surveys will be taken to assess user experience

FOWS appreciates the inclusion of additional monitoring in the FEIS and believes this is an important step to improving the proposed plan. Additional questions and comments are included in individual resource sections below.

### **Adaptive Management:**

The FEIS also responds to comments regarding adaptive management, noting that the shoreline plan will be evaluated every four years as part of TRPA's threshold evaluation. It will be important to perform in-depth reviews of all monitoring data and adapt within a timely manner. Further, any proposed changes will require sufficient data to analyze cause/effect relationships, which is why it is imperative that adequate monitoring be included in the plan from the start.

## **Non-motorized recreation**

The FEIS explains that the scope of the Shoreline Plan is primarily focused on motorized boating structures.<sup>6</sup> While FOWS understands the limitations of the plan's focus, at the same time,

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<sup>5</sup> SIP, Staff summary, p. 497

<sup>6</sup> "The plan includes fewer of this type of regulation and program because recreation experience was looked at through the lens of the controls needed on development of structures. Enhancing passive recreation uses was not

shoreline structures that will increase motorized boat use on the lake may impact non-motorized recreation users, who outnumber motorized boaters, through the generation of noise, waves, and user conflicts.<sup>7</sup> As stated in our DEIS comments, ‘fair share capacity’ should be based on the number of users in each group, not simply the property ownership.<sup>8</sup> While the FEIS includes additional items to reduce impacts to non-motorized recreation, we are still concerned that allowing more motorized boat use without adequately planning for non-motorized use puts the cart before the horse. However, recognizing the scope of the plan, we are very encouraged by the inclusion of additional measures in the FEIS to address public comments regarding impacts to non-motorized recreation.

**Shoreline plan fees:**

FOWS appreciates the inclusion of additional measures in the FEIS to protect non-motorized recreation users including:

- The additional 200-foot No-Wake-Zone around shorezone structures,
- The 100-foot No-Wake-Zone around non-motorized traffic and swimmers,
- The allocation of a portion of fees toward the Lake Tahoe Water Trail for paddler education and access programs, and
- The additional recreational surveys and monitoring.<sup>9</sup>

As discussed during the Regional Plan Implementation Committee (RPIC) on 9/26 by committee members and the public, there has been some concern with the relatively low funding amounts associated with the list of ten items focused on non-motorized recreation.<sup>10</sup>

FOWS is pleased to see the SIP’s inclusion of a specified annual amount of approximately \$40,000 to help fund the Sierra Business Council’s Lake Tahoe Water Trail (LTWT) program.<sup>11</sup> We believe it is imperative that this well-established and crafted program be implemented, especially in light of the increased popularity of on-lake non-motorized activities and the potential conflicts that increased boating may generate. We also encourage TRPA to collaboratively work with the LTWT program to help support their additional funding needs, which equate to roughly \$60,000/year.<sup>12</sup> While the annual contribution is significant and will cover a large portion of the costs of printed educational materials, signs, etc., getting the information distributed to the public will require an extensive amount of time, energy, and cost, in addition to the costs of printed materials.

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looked at holistically because that purpose was outside the scope of the Shoreline Plan and does not implicate developing new shorezone structures.” (FEIS, p. 3-4)

<sup>7</sup> “[motorized boating] activities have the potential to degrade the environment and the recreational enjoyment of Lake Tahoe.” (FEIS, p. 3-4)

<sup>8</sup> Staff summary, p. 568

<sup>9</sup> FEIS p. 2-2.

<sup>10</sup> SIP, Staff summary, p. 489-491

<sup>11</sup> SIP, Staff summary, p. 489

<sup>12</sup> Annual program costs are estimated to range between approximately \$90,000 to \$100,000/year between 2019 and 2023. Lake Tahoe Water Trail Long-Term Implementation Plan Overview. August 20, 2018. Sierra Business Council. (copy attached)

**Recreation surveys:**

FOWS appreciates the inclusion of additional recreation surveys to assess user experiences and the supporting program fees.<sup>13</sup> The FEIS states that surveys will be done in the summer of 2019, and then as part of threshold monitoring. However, it is unclear whether surveys will be conducted annually versus every four years per the threshold evaluation (we recommend annually). The FEIS refers to adaptive management through the four-year threshold process, however the proposed cost is \$15,000/year suggesting *annual* monitoring. We support annual monitoring and request the timeline for monitoring be clarified.

We encourage TRPA to work with the LTWT program to cooperatively develop appropriate recreation survey questions and data-gathering techniques to ensure the best information is gathered. Implementers of the LTWT and their partners are uniquely qualified to understand the interests of non-motorized recreation users and already have an established network around the lake, and are therefore extremely well-suited to help develop and implement such surveys. Further, it would be most efficient for TRPA to work with the LTWT and partners to avoid duplicating efforts, which would likely not only waste precious resources, but also lead to confusion and/or lower public participation.

**Public pier lengths:**

Our DEIS comments raised concerns about paddler safety with regards to paddlers attempting to go around long piers. The DEIS proposed a 30' width between the 600' NWZ boundary and the end of such piers (creating a maximum length of 570'); in the final EIS, this has been removed and replaced by the 200' NWZ around structures and 100' NWZ around active recreation users on the lake. However, safety concerns regarding pushing paddlers out to the NWZ or farther in order to get around a pier remain. We appreciate that design standards will consider these impacts and recommend future recreation surveys include specific questions related to whether such piers have created safety concerns or other impacts to user experience.

**Additional public access-related measures:**

We appreciate the inclusion of additional fees on piers to support improved public access,<sup>14</sup> however the FEIS does not provide information regarding the types of projects that these additional fees would support. For example, will these fees be used toward funding the program's fee commitments in the SIP, and/or will they be collected and used to fund future projects identified as a result of the California Tahoe Conservancy's public access report<sup>15</sup> and ongoing work by the Sustainable Recreation Working Group? We request this be clarified.

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<sup>13</sup> FEIS, p. 2-3 and SIP, Staff summary, p. 494-495

<sup>14</sup> "Nonetheless, in further response to the comments on the need to enhance recreation access beyond what is already provided by the proposed Plan, staff identified an existing fee charged to pier applicants. The per lineal foot fee will be increased and used to generate funds to improve public access at public places on the Lake." (Staff summary, p. 458)

<sup>15</sup> California Tahoe Conservancy. *Lake Tahoe Public Access Investment Plan Site Inventory*. July 2018.

**Demarcation buoys:**

The FEIS SIP includes an optional measure to locate demarcation buoys in high priority conflict areas. It is unclear why this is only included as an “optional” measure.<sup>16</sup> Such buoys could be temporarily located in high priority areas during peak use and removed the rest of the year. We request clarification regarding this recommendation.

**Water Quality**

**Nearshore turbidity monitoring:**

In our draft EIS comments, we requested more specific commitments to increases in nearshore monitoring. FOWS is pleased to see the commitment in the FEIS that TRPA will partner with UC Davis and TERC to fund the installation of two turbidity monitors and cameras in 2019.<sup>17</sup> While presumably this arrangement would involve ongoing operation of the monitors and associated data collection, it is not clearly stated. Further, the FEIS states that the program would involve “up to 2 years” of operation as well,<sup>18</sup> however the SIP only refers to a one-time purchase of the equipment. We request clarification of who will fund and operate the monitors on an ongoing basis and ensure that it will be done.

We also appreciate the inclusion of potential actions that could be taken if it is found that boating activity is contributing to an exceedance of nearshore standards.<sup>19</sup> If data indicate such contributions, we would encourage actions which directly address boats and boating infrastructure, as the possible ‘on-land’ measures (e.g. fertilizer reductions and stormwater projects) are already apt to be needed to address pollution from on-land activities, and will become more important as climate change continues to impact the lake, especially with regards to nutrient cycles.

**Hydrocarbon compounds:**

We are pleased with TRPA’s responsiveness to requests by FOWS and others to include ‘baseline’ monitoring of hydrocarbon components to confirm the results of previous data collection and validate the assumptions used in the FEIS.<sup>20</sup> This information will prove useful in ensuring increased boat activity will not violate water quality standards.

**Best Management Practices (BMPs):**

We appreciate the inclusion of the requirement for BMPs to be in place prior to an owner of upland property applying for new moorings.<sup>21</sup>

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<sup>16</sup> SIP, Staff summary, p. 490

<sup>17</sup> SIP, Staff summary, p. 493

<sup>18</sup> FEIS, p. 3-54

<sup>19</sup> FEIS, p. 3-54

<sup>20</sup> SIP, Staff summary, p. 494

<sup>21</sup> FEIS, p. 2-2

## Air Quality

Our DEIS comments requested additional analysis of estimated emissions from watercraft on the lake. The FEIS includes a more detailed explanation of why such analysis is not feasible and why TRPA chose to rely on the emissions inventory from the California Air Resources Board.<sup>22</sup> TRPA will collect relevant boat information to check EIS assumptions including “*boat engine hours, boat manufacture year and type, boat engine rating, buoy occupancy rate, and boat ramp launch data*”<sup>23</sup> and detect unexpected changes. While this information is imperative for future planning and adaptation, we also recommended conducting baseline air quality monitoring, especially of ozone (which has been found at higher than anticipated levels on the lake<sup>24</sup>), that will coincide with the collection of actual boat use information as the SIP is implemented, in order to provide TRPA with on-lake air quality data that can be associated with specific boat use information.

FOWS is pleased with the inclusion of on-lake ozone monitoring in coordination with the Desert Research Institute during peak days in the first season of program implementation.<sup>25</sup>

## Noise

### **Prohibition of boats that violate noise standards:**

We are pleased to see the FEIS include a prohibition on vessels that generate noise that violates standards.<sup>26</sup> While education will play an important role, this ban will also need to be rigorously enforced.

### **Noise Monitoring:**

We support the inclusion of cameras for assessing noise sources and improving enforcement,<sup>27</sup> however it remains unclear to what extent noise monitoring specific to the shoreline will be conducted. The FEIS notes that the cameras will be added to the existing noise monitoring program and that additional monitoring will cost approximately \$30,000/year, however details regarding what this will cover are not included.<sup>28</sup> For example, will noise monitors be located at certain locations on peak days during the summer? Or is the estimate based on monitoring conducted primarily in response to complaints? Further, the California Department of Parks and

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<sup>22</sup> FEIS, p. 3-35 to 36

<sup>23</sup> SIP, Staff summary, p. 495

<sup>24</sup> Bytnerowicz, Andrzej; Fenn, Mark; Gertler, Alan; Preisler, Haiganoush; Zielinska, Barbara. 2013. Distribution of ozone, ozone precursors and gaseous components of atmospheric nitrogen deposition in the Lake Tahoe Basin. Report to the Southern Nevada Public Land Management Act, Contract No. P063, Riverside, CA. September 2013. 86 p.

<sup>25</sup> “In order to confirm the results of previous data collection and ensure the data used in the EIS analysis is sufficient, TRPA will partner with the Desert Research Institute for one season to monitor ozone precursors during the most popular boating days at a mid-lake buoy, beginning in 2019. This monitoring includes a one-time cost estimated at \$5,000, to be paid from fees collected in the 2008-2010 shorezone program.” (Staff summary, p. 494).

<sup>26</sup> “TRPA has revised the proposed Shoreline Plan to prohibit vessels configured with exhaust systems that emit exhaust directly to the air, and any vessels capable of generating noise that exceeds TRPA or applicable state standards, from operating on Lake Tahoe.” (FEIS, p. 2-3)

<sup>27</sup> FEIS, p. 2-3

<sup>28</sup> SIP, Staff summary, p. 492

Recreation identified problems with noise in Emerald Bay and recommended ongoing noise monitoring there and at other high use boating locations. Their comments also noted that most visitors to Emerald Bay come for non-motorized recreation and their experience can be negatively impacted by noise (which is intensified by the bowl shape of the bay<sup>29</sup>).<sup>30</sup> It is unclear whether the SIP includes such ongoing monitoring. We recommend additional clarification.

FOWS also appreciates the inclusion of potential adaptive management actions that could be taken if results indicate excessive noise violations or areas of concern.<sup>31</sup>

## Boat Ramps

Our DEIS comments raised concerns about the use of an ‘average’ value for new boat traffic associated with the two new boat ramps that could be approved under the new plan given the wide range of use of existing boat ramps.<sup>32</sup> The FEIS explains that doing so is ‘unnecessarily’ conservative for a variety of reasons.<sup>33</sup> We appreciate the detailed discussion on this comment, however given the substantial difference between the capacity and use of different boat ramps around the lake, there needs to be some assurance that any new boat ramps will not result in boat use beyond the level evaluated in the EIS. New boat ramps will mean more boats on Lake Tahoe; those boats will travel throughout the lake, therefore the impacts cannot adequately be captured in future project-level reviews, but must be assessed on a basin-wide level as is done in the EIS, which has assumed a net increase of 2,603 annual and 113 peak day boat launches from additional ramps. In addition, while the FEIS notes that boaters using existing ramps may shift to using a new ramp making the estimated increases even more conservative,<sup>34</sup> the fact remains that new ramps will increase the overall capacity of boats that can launch on the lake during peak periods. Further, as users shift from existing ramps to new ramps, it is reasonable to assume that more users will ‘fill in’ the gap left at the existing ramps on peak use days. Therefore, we recommend that the cumulative increases from future boat ramps not exceed the maximum values used in the DEIS.

## Dredging

Our DEIS comments expressed concerns with the plan’s proposal to allow new dredging (beyond maintenance dredging). We appreciate the changes made in the FEIS to limit new dredging to specific situations within marinas while retaining the more protective requirements outside of marinas.<sup>35</sup>

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<sup>29</sup> Comment A3-10

<sup>30</sup> Comment A3-1

<sup>31</sup> FEIS, p. 3-54

<sup>32</sup> From 579 to 6,731 annual boat launches and 30 to 198 peak day boat launches.

<sup>33</sup> FEIS, p. 3-31

<sup>34</sup> FEIS, p. 3-30

<sup>35</sup> “Dredging: Section 84.9 is revised to apply standards similar to state and federal requirements for new dredging in marinas, public health and safety facilities and public boat ramps. Note that these provisions are being further revised to apply TRPA’s existing “beneficial to water quality” standard to new dredging unless it is deeper dredging in an area of previous maintenance dredging.” (Staff summary, p. 447)

## Aquatic Invasive Species

Our NOP comments requested the inclusion of specific regulations and mitigation measures, including two recommendations from researchers at the Tahoe Environmental Research Center<sup>36</sup> to reduce aquatic invasive species (AIS) transport, however these are not addressed in the DEIS. The first recommendation regarding the filling and emptying of ballast tanks one mile from shore would appropriately be part of public education and information provided to boat owners during boat inspections. The second recommendation that all ballast tanks be equipped with filters that can effectively remove all particulate material could be incorporated into boat inspections. We recommend consideration of these actions.

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<sup>36</sup> “Two obvious actions can prevent this accelerated spread from occurring. First, all filling and emptying of ballast tanks should take place at least one mile from shore. The deep waters there are less likely to contain veligers, and any would invariably sink to the cold depths where they cannot reproduce. Secondly, it would be extremely prudent to require that all ballast tanks be equipped with filters that can effectively remove all particulate material.” (2017 State of the Lake Report, p. 6-17)