
STAFF REPORT

Date: October 4, 2023

To: TRPA Advisory Planning Commission

From: TRPA Staff

Subject: Updates to Threshold Standards

Summary and Staff Recommendation

For the past two years staff have been working with Stakeholders to review and propose revisions to the Threshold Standards that guide the Regional Plan. The presentation will cover proposed modifications to threshold standards in three focus areas; 1) Stream Environment Zone (SEZ) restoration, 2) Aquatic Invasive Species control, and 3) Tahoe Yellow Cress conservation.

Requested Action

This item is informational only.

Background

TRPA operates under the authority of the states of California and Nevada and the federal government through the Bi-State Compact, which was ratified by Congress and signed by the President of the United States. The revised Bi-State Compact, signed nearly forty years ago, wrote “the waters of Lake Tahoe and other resources of the region are threatened with deterioration or degeneration, which endangers the natural beauty and economic productivity of the region (96th Congress 1980)” To ensure the natural beauty and economic productivity of the region would persist for generations to come, the Bi-State Compact directs TRPA to establish “environmental threshold carrying capacities,” defined as “an environmental standard necessary to maintain a significant scenic, recreational, educational, scientific or natural value of the region or to maintain public health and safety within the region.” These environmental threshold standards establish goals for environmental quality and express the shared aspiration for environmental restoration of the Tahoe Region. The standards shape the goals and policies of the Regional Plan and guide millions of dollars of public and private investment in the basin through the Environmental Improvement Program (EIP). The initial threshold standards set the course for the Region 40 years ago but were never intended to be immutable. The multi-disciplinary team that authored the 1981 threshold study report outlined specific triggers for standard review, and set the expectation that the standards would be reassessed at least every five years, and wrote: “environmental thresholds are not static standards that once in place remain forever” (TRPA 1982a).

Proposed changes to the threshold standards were developed using the guidelines proposed by the Tahoe Science Advisory Council and direction from the Threshold Update Initiative Stakeholders Working Group appointed by the TRPA Governing Board and chaired by the Advisory Planning Commission (APC). The specific changes being presented to the APC were prepared in conjunction with the EIP working groups focused on each subject matter: Tahoe Watershed Improvement Group for SEZ, Tahoe Yellow Cress Adaptive Management Working Group for Tahoe Yellow Cress, and the Aquatic Invasive Species Coordinating Committee for Aquatic Invasive Species.

Stream Environment Zone (SEZ) restoration

The proposed update to the SEZ restoration renews the partnership's long-term commitment to restoring the resilience of SEZ, by establishing a new target for SEZ restoration. The proposed standard utilizes the SEZ condition index which integrates both size and condition, addressing the deficiency in the current standards sole focus on area of SEZ (Attachment 1).

Aquatic Invasive Species Control

The proposed modifications to the AIS control threshold standards replace six aspirational statements with two quantifiable goals. The first standard establishes a goal of no active plant infestations outside the Tahoe Keys, and the second establishes the goal of 75% reduction in abundance within the Tahoe Keys (Attachment 2).

Tahoe Yellow Cress

The proposed modifications to the Tahoe yellow cress threshold standard incorporate the last thirty years of Tahoe yellow cress science and recognize the influence of lake level on population sites. The proposed standard also aligns the threshold standard with the species conservation strategy (Attachment 3).

Additional detail on the proposals can be found in the attached memos from the individual working groups to the Tahoe Interagency Executive Steering Committee (TIE-SC). The attached memos will be presented to the TIE at the November 2023 meeting.

Public Comment

To submit a written public comment, email publiccomment@trpa.gov with the appropriate agenda item in the subject line. Written comments received by 4 p.m. the day before a scheduled public meeting will be distributed and posted to the TRPA website before the meeting begins. TRPA does not guarantee written comments received after 4 p.m. the day before a meeting will be distributed and posted in time for the meeting.

Contact Information

For questions regarding this item, please contact Dan Segan, Chief Science and Policy Advisor, at dsegan@trpa.gov, (775) 589-5233.

Attachments:

- A. Draft Stream Environment Zone threshold update memo
- B. Draft Aquatic Invasive Species control threshold update memo
- C. Draft Tahoe Yellow Cress Threshold update memo

Attachment A

Draft Stream Environment Zone threshold update memo

Date: DRAFT

To: EIPCC / TIE-SC

From: Tahoe Watershed Improvement Group

Subject: Recommended Updates to the Stream Environment Zone Restoration Threshold Standards

Introduction and Background

Protecting and restoring meadows and wetlands has long been a priority in the Tahoe Region to preserve wildlife habitat, maintain the natural functions of the ecosystem, and build the region's resilience to climate change. This memo summarizes recommended updates to the Stream Environment Zone (SEZ) restoration target for the Tahoe Region.

Thresholds

Current Thresholds:

- SC10) Preserve existing naturally functioning SEZ lands in their natural hydrologic condition.
- SC11) Restore all disturbed SEZ lands in undeveloped, unsubdivided lands.
- SC12) Restore 25 percent of the SEZ lands that have been identified as disturbed, developed or subdivided.
- SC13) Attain a 5 percent total increase in the area of naturally functioning SEZ lands.

Proposed Thresholds:

- 1) Enhance the quality and function of meadows and wetlands from 79% to 88% of the regional possible SEZ condition index score.

Justification for Changes to Thresholds:

The proposed update to the threshold standard established a new goal for SEZ restoration consistent with the partnerships long-term commitment to restoring the resilience of these ecosystems. The peer review of the 2015 Threshold Evaluation highlighted the shortcoming of 40 years of tracking only the area of SEZ restored in the region; *"In summary, the present approach to evaluating the condition and the improvement in SEZs is an overly blunt instrument with no apparent scientific basis beyond "more is better" (Hall et al. 2016)."* Numerous issues have been identified with regard to the current threshold standards. Among the issues raised are the ambiguous nature of the objectives as a result of multiple undefined terms, and the absence of an accepted baseline against which the standard can be assessed. To address these issues, partners developed the SEZ condition index which integrates size and condition, to provide a single integrated value that expresses the regional contribution of the SEZ. In 2020 partners completed the baseline assessment, compiling condition assessments for 98% of the meadows, marshes, wetlands, and fens in the region. That assessment is used as the baseline to establish the new target.

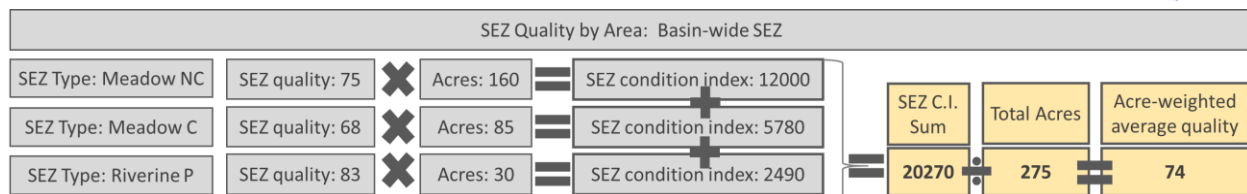


Figure 1: SEZ Condition Index Calculation

The baseline assessment utilizes a dimensionless “SEZ condition index” that quantifies condition based on up to ten individual indicator scores (additional details on the condition index and full baseline assessment can be found at <https://gis.trpa.org/tahoesezviewer/>). The individual indicators were selected as quantitative measures of the functions and benefits SEZ provide. The condition index expresses the condition of each SEZ on a scale of 0 to 100, with 100 being a perfect score (full function) and zero representing complete loss of function (Figure 1).

Use of the condition index for regional target setting requires weighting individual scores by the area assessed. This is done by multiplying the condition score for each SEZ by the area of that SEZ, and then summing all individual scores (Table 1). At the regional scale the maximum possible SEZ condition index score can be calculated by multiplying the total acres of SEZ by 100. Where 100 is the condition score expressed as a percentage of the maximum possible score. Dividing the current score by the total acres of SEZ in the region, provides an area-weighted average quality score for the region. The condition index suggests that the region’s SEZ are currently at 79% of their total possible score (Table 1).

Table 1: SEZ Condition Index

Condition Index	
Possible Score	1,194,218
Current Score	939,037
Current as percent of possible	79%

Using the baseline assessment to establish current condition, the recommended restoration target was established by identifying impaired SEZ that partners are currently restoring or are a future restoration priority. The expected increase in the index score was established through a review of the expected restoration outcomes with implementors. The average post-project score was estimated to be 91% of the overall score. The embedded assumption here is that future restoration projects outperform restoration work of the last 20 years, where the average score of a restored unit was 88%. Units identified for projects were thus expected to be at 91% of their total possible score. Where a unit was already at or above 91%, the contribution was estimated to close half the gap to a perfect score (eg. if a unit was currently at 92%, the estimated increase was to 96%).

A total of 169 units were identified for future work, including 4,746 acres or 40% of mapped area in the region. Collectively these projects would raise the Condition Index from 79% of the regional possible score to 88%. While the goal for the standard was identified based on assessment of individual units, no specific unit is identified or required for attainment of the goal. The target can be attained in many ways, including enhancement of existing meadows and/or restoration of units that have been lost to development.

The proposed threshold standard includes embedded assumptions about the future condition of SEZ in the Region. Notably, that there will be no decline in condition of SEZ as a result of climate change. If climate change causes widespread decline, as some forecasts suggest, the target will be significantly harder to attain and may need to be adjusted.

The existing non-degradation standard for “naturally functioning SEZ lands” (SC 10) is not recommended as a threshold standard. The standard was adopted prior to the current Regional Plan and the protections in the Regional Plan and Code of Ordinances now exceed the threshold standard. The protection of naturally function SEZ is included in Regional Plan Goal S-1.7 and exceeded by protections included in Goals S-1.2 and SEZ-1.5. While the standard refers only to “naturally functioning” SEZ lands, the protections against coverage or permanent disturbance in S-1.2 and SEZ-1.5 extend to land capability classes 1-3 (land capability class 1b is generally considered the closest to SEZ), even if the area is not considered to be naturally functioning. Additional protections, such as a prohibition on development, grading, and fill in the 100-yr floodplain NH-1.2 afford further protection.

Chapters 30, 36, 53 of the Code further expand protection of SEZ, through the inclusion of provisions that require setbacks from SEZ, precluding development in SEZ and in a buffer zone around the SEZ.

Performance Measures

Current Performance Measures:

1. Acres of SEZ Restored or Enhanced
 - a. SEZ Restored
 - b. SEZ Enhanced

Proposed Performance Measures

1. Acres of SEZ Restored or Enhanced
 - a. SEZ Restored
 - b. SEZ Enhanced

Justification for Changes to Performance Measures

No changes are proposed for the SEZ performance measures. The current performance measures are input-based PMs that measure the actions or effort of EIP partners. This framework is carried forward because it provides a straightforward and common-sense way of communicating the activities of EIP partners. The output or benefits of those actions can be measured in the same units as the threshold standard. For example, performance in a given year could be reported as; *In 2023 partners completed 10 SEZ restoration projects on 115 acres of SEZ. The projects increased the average quality and function of those SEZ from 65% to 91%. Collectively these 10 projects achieved 15% of the region’s multi-year wetland restoration goal.*

Attachment B

Draft Aquatic Invasive Species control threshold update memo

Date: DRAFT

To: Tahoe Interagency Executive Steering Committee (TIE)

From: Aquatic Invasive Species Coordinating Committee

Subject: Recommended Updates to Aquatic Invasive Species Threshold Standards and Performance Measures

Introduction and Background

Controlling and eradicating Aquatic Invasive Species (AIS) in the Lake Tahoe Region is a top priority of the Lake Tahoe Environmental Improvement Program (EIP). The proposed threshold standards provide ambitious and quantifiable targets for the AIS program over the next 20 years. The revised PMs will allow for better tracking of progress over time and will provide essential information for evaluating effectiveness and improving future project design. A preliminary proposal was discussed at the April 6, 2023 TIE meeting and the proposal below integrates feedback received at that meeting. The modifications include both changes to the proposed threshold consistent with direction provided by TIE and provision of additional information on the measurement and quantification of the performance measures as requested by the TIE.

AIS Thresholds

Current AIS Threshold Standards:

1. Prevent the introduction of new aquatic invasive species into the region's waters.
2. Reduce the abundance of known aquatic invasive species.
3. Reduce the distribution of known aquatic invasive species.
4. Abate harmful ecological impacts resulting from aquatic invasive species.
5. Abate harmful economic impacts resulting from aquatic invasive species.
6. Abate harmful social impacts resulting from aquatic invasive species.
7. Abate harmful public health impacts resulting from aquatic invasive species.

Proposed AIS Threshold Standards:

1. Prevent the introduction of new aquatic invasive species into the region's waters.
2. No active aquatic invasive plant infestations in Lake Tahoe, adjacent wetlands, and tributaries, not including the Tahoe Keys.
3. Reduce aquatic invasive species abundance in the Tahoe Keys by 75% by 2045.

Justification for Change in AIS Thresholds:

The two threshold standards for AIS control ground the aspirational statements of the existing standards in a quantitative target for AIS control. The two targets formally recognize the different but complimentary approaches and targets for addressing AIS inside and outside of the Tahoe Keys. The

formal delineation of the goals for control inside and outside of the Tahoe Keys addresses the concern expressed earlier by TIE, that focusing only on total abundance of AIS reduced could be achieved by a strategy that only focused on treatment within the Tahoe Keys.

The first proposed threshold standard establishes a goal for aquatic invasive plant infestations in Lake Tahoe and associated areas. The standard establishes the goal that all aquatic invasive plant infestations in the Lake be in the surveillance management category. The goal aligns with the management categories that are utilized by the Lake Tahoe Aquatic Invasive Species Coordinating Committee and conveys the reality of long-term management of aquatic invasive species. Due to aquatic invasive plants' proclivity towards spreading and establishing new infestations through fragmentation throughout connected waterbodies, all completely treated aquatic invasive plant sites are at risk of re-establishment if there is source of fragments within Lake Tahoe. The goal acknowledges that because of this risk, complete eradication is unlikely, and control will likely require continued surveillance and vigilance. The proposed threshold standard formally adopts the phase one vision laid out in the [Lake Tahoe Region AIS Action Agenda](#).

For the purposes of threshold standard evaluation, the definition of "Active Infestation" is an infestation that requires more than one day for a two-diver team (20 diver hours) per season to treat with hand pulling.

A second standard is proposed for invasive aquatic plants in the Tahoe Keys. The Tahoe Keys is the largest infestation in Tahoe and the proposed threshold standard of a 75% reduction abundance in the Tahoe Keys was identified in the environmental document and plan for the Tahoe Keys Control Methods Test. The scientific and collaborative planning of the Tahoe Keys Control Methods Test suggested that a 90% reduction identified in the AIS action agenda was likely not feasible given the size and density of the infestation within the Tahoe Keys lagoons. Partners concluded that a 75% reduction of invasive aquatic weeds could be maintained over time and established it as the goal, and that goal is formally proposed for adoption as a threshold standard here.

While control of all aquatic invasive species is the program's overall goal, the proposed threshold standards apply specifically to aquatic invasive plants and not to other aquatic invasive species (fish, invertebrates, amphibians) at this time. AIS Control work will primarily be focused on as the [AIS Implementation Plan](#) (UNR, 2015) recommends prioritizing species with feasible control methods. While warm-water fish control has feasible methods available, the Implementation Plan recommends prioritizing aquatic invasive plant control to reduce warm-water fish habitat to allow for more effective treatment.

Asian clam and signal crayfish do not currently have feasible control methods available. In addition, little to no quantifiable baseline data exist for other AIS, as such, PMs and threshold standards for warm-water fish, Asian clam, signal crayfish, and other species will be developed as feasible control methods

and baseline data become available. The Acres Surveyed and Acres Treated performance measures will continue to apply to Asian clams and other species. Survey and treatment work for non-plants species will be noted in the project description and the notes in the EIP Project Tracker. The aquatic invasive plant control program will be used as a model to further develop these programs and gather the data needed to incorporate additional species categories into the threshold standards in the future. As the control program moves to address different AIS, additional PMs and threshold standards may be required. For example, reductions in warm-water fish or Signal crayfish populations will likely reflect biomass or individuals reduced, as acres would not be a rational metric to use for these species.

No changes are proposed to the AIS prevention threshold standard.

AIS Performance Measures

Current AIS Performance Measures:

1. Acres Inventoried
2. Acres Treated
3. Watercraft Inspections
4. Watercraft Clean Launches

Proposed AIS Performance Measures:

1. Acres Surveyed
2. Acres Treated
3. Aquatic Invasive Plant Abundance Reduced
4. Watercraft Inspections
5. Watercraft Clean Launches

Justification for Change in Performance /Measures:

Acres Surveyed is an adaptation of an existing metric, “acres inventoried.” The former PM language was chosen when the metric was also linked to terrestrial plants and is no longer the most appropriate to describe the work of the AIS Program. Continued surveillance monitoring at regular intervals is critical for controlling AIS in Lake Tahoe, and a necessary component for evaluation of the proposed threshold standard which requires infestations be evaluated in accordance with the Control Management Category system. Acres surveyed reflects an action that is critical to the success of the program.

Acres Treated will remain the same. Acres Treated is an appropriate measure of the activity of the EIP partners in addressing AIS. The indicator measures the acreage treated using established control methods. The indicator does not differentiate between the density of infestation treated by activity. A new subcategory is proposed for this performance measure related to implementation of experimental methods to treat AIS. In addition to reporting the total number of acres treated, implementors will be asked to identify test or pilot treatment methods so that they can be tracked and reported separately.

Aquatic Invasive Plant Abundance Reduced. The proposed performance measure provides an integrated measure of the impact of control work both inside and outside the Keys. Aquatic invasive plant infestations vary from very small to expansive and from sparse to dense. Dense infestations have a larger impact on the ecosystem, and have a greater propensity to spread, and are arguably a larger threat to the lake. The varying characteristics of these infestations require different control methods, levels of effort, and amount of time and funding to successfully control. To better quantify the benefit of each acre treated, the proposed performance measure integrates area treated and density of the infestation treated to provide an integrative measure of the benefit of treatment work in that year.

The proposed performance measure utilizes the existing mapping protocols of project implementors to reduce reporting burden. Current protocols include mapping of infestations by trained practitioners and delineation of each area into one of three categories; Sparse, Patchy Dense, and Dense. To provide a single number for the proposed performance measure, a multiplier is applied to each acre based on its density. Sparse acres are multiplied by 0.10, Patchy Dense acres are multiplied by 0.50, and Dense acres are multiplied by 1.00 (Figure 1). The resulting value integrates size and density of the acres treated and serves as a proxy for Biovolume.

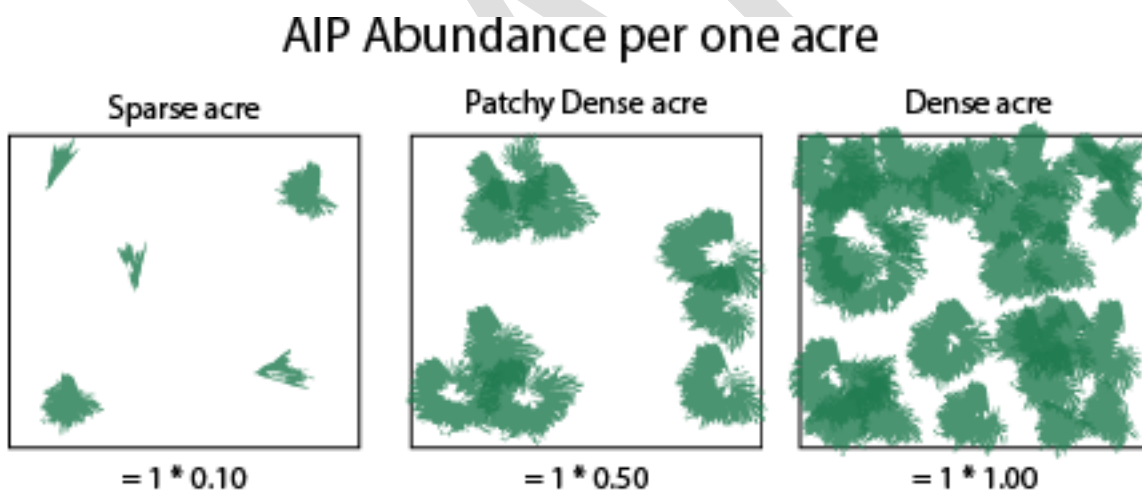


Figure 1. Acres of aquatic invasive plant infestation are multiplied according to their corresponding density category: Sparse, Patchy Dense, or Dense. The resulting number is the aquatic invasive plant abundance for tracking performance.

No changes are proposed to prevention-based performance measures (watercraft inspections and watercraft clean launches).

Attachment C

Draft Tahoe Yellow Cress Threshold update memo

Date: DRAFT
 To: Tahoe Interagency Executive Steering Committee (TIE)
 From: Tahoe yellow cress Adaptive Management Working Group
 Subject: Threshold standard for Tahoe yellow cress

Summary

This memo summarizes the proposed modification to the threshold standard for Tahoe yellow cress (*Rorippa subumbellata*; TYC), a plant that only grows within the shorezone of Lake Tahoe. The current standard is to “Maintain a minimum of 26 *Rorippa subumbellata* population sites.”

The proposed threshold is linked to lake level, as follows:

Maintain a minimum of Rorippa subumbellata occupied survey sites as established in the Table below.

Lake Level (feet of elevation)	Occupied survey sites
Low (<6,225)	35
Transition (6,225- 6,227)	26
High (>6,227)	20

Background

Threshold standards establish the partnership’s regional goals for environmental quality and express the shared desired outcomes for the Tahoe Region. These shared goals drive the priorities and implementation of the Environmental Improvement Program (EIP).

The current standard to “Maintain a minimum of 26 *Rorippa subumbellata* population sites” was adopted in 1982 as part of the original set of threshold standards. TYC is only found within the shorezone of Lake Tahoe and systematic lake-wide surveys of its shorezone habitat began in 1979. The current threshold standard of 26 sites was based on the first three years of survey data from approximately 34 sites during 1979-1981. Repeat surveys of these sites have been conducted in most years since 1979, with the number of survey sites gradually increasing over time to approximately 50 sites. As explained in the Conservation Strategy for Tahoe yellow cress (Stanton et al. 2015), “a survey “site” has been defined as a stretch of public beach, adjacent private parcels grouped by a place name or landmark, or adjacent parcels under a combination of both private and public ownership.”

The Conservation Strategy contains analysis of this extensive survey dataset that makes clear the close relationship between TYC and the level of Lake Tahoe. Under lower lake level conditions, more shoreline habitat is exposed and TYC occupies a greater number of sites. As Lake Tahoe rises, the

amount of available habitat declines along with the expected number of occupied sites. **Figure 1** shows the strong inverse relationship between number of occupied survey sites and lake level from 2000 to 2020. The lake-wide surveys have been conducted during the first week of September in most years and the timing became part of the standardized protocol in the Conservation Strategy. Prior to 2000, the surveys were less standardized.

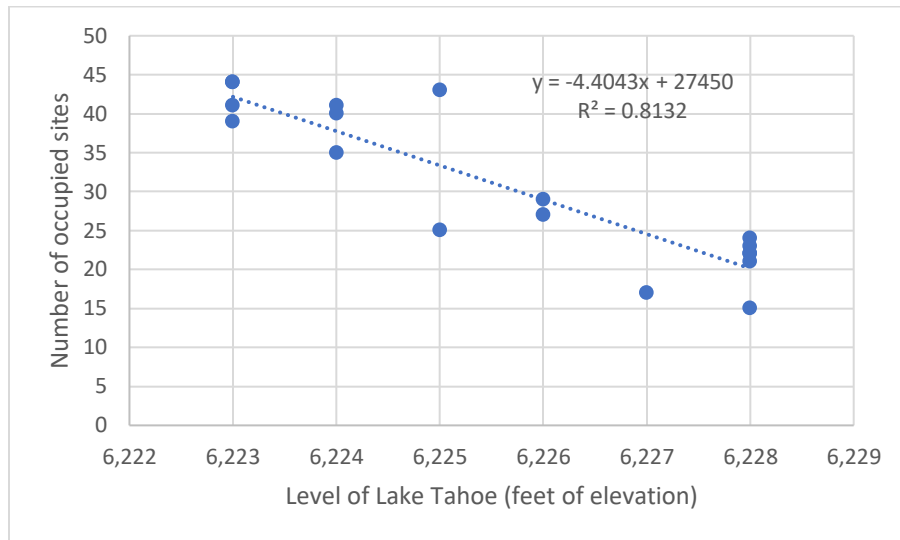


Figure 1. The number of occupied TYC survey sites during the period from 2000 to 2020 as a function of lake level, measured in September at USGS Tahoe City gage 103370000. N= 18 survey years (no surveys in 2010, 2013, 2015 due to protocol). At least 75% of the 54 survey sites were surveyed each year.

Lake level is measured at the USGS gage at Tahoe City (<https://waterdata.usgs.gov/monitoring-location/10337000/#parameterCode=00065&period=P30D>), and the level recorded in the first week of September has historically been rounded to the nearest whole number in the dataset. With respect to TYC monitoring, the Conservation Strategy classifies lake level as “low” when lake level is 6,223 or 6,224 feet in elevation (Lake Tahoe Datum), “in “transition” when lake level is 6,225 or 6,226 ft., and “high” if it is 6,227 ft. or above. The proposed revision to the threshold standard utilizes these three categories with the proposed minimum number of sites set at the point in Figure 1 where the regression line crosses the highest elevation of each category (i.e. 35 sites at 6,224.5 ft). The survey period from 2000 to 2020 was utilized, rather than the entire period since 1979, because the number of survey sites has remained relatively constant since 2000 and the dataset is balanced with 7 years each of low and high lake levels, including 4 transition years.

A second change in the proposed revision is dropping use of the term “population sites” in favor of “occupied survey sites”. The reason for this is that the concept of a population, as applied to TYC, is not well understood. The original Conservation Strategy (Pavlik et al. 2002) hypothesized that TYC exhibited a metapopulation dynamic characteristic of the “mainland-island” type, where TYC “Core” sites persist—

both temporally and spatially—while others seem to appear and disappear across the repeated lake-wide survey events. Analysis of the colonization to extirpation ratio is a critical part of evaluating the trend of a species' metapopulation dynamic, where a colonization to extirpation ratio greater than 1 indicates a positive dynamic, and promoting a positive dynamic is generally set as a management goal. However, there are numerous spatial and temporal difficulties in observing or measuring metapopulation events in plants that have cryptic life stages of dormant rootstock and/or seedbanks. Unlike many rare plants, TYC is both a prolific seeder and exhibits vigorous clonal growth, and thus it is impossible to determine an individual or know if the plant arrived via a colonization event (via seed dispersal) or if it is a re-sprout from rootstock. Therefore, this concept was dropped in the revised Conservation Strategy in favor of promoting persistence of TYC at a site (see section 2.5 for a full discussion).

The proposed revision to maintain a minimum number of occupied survey sites at 3 lake levels brings the threshold in line with the goals and objectives of the Conservation Strategy and the Imminent Extinction Contingency Plan (pgs 65-66). The plan is an integral component of the adaptive management framework contained within the Conservation Strategy and was developed to alert all stakeholders in advance of the level of effort and resource commitment that may be required as threat level increases. The plan describes the actions that may be taken to protect the species at 3 threat levels based on the number of TYC occurrences or percent occupancy of surveyed sites (50 sites were used in the analysis). Level 1: Normal Operations is 70% occupancy (or 35 of 50 sites surveyed); Level 2: Moderate Threat is 40-69% occupancy (20-34 sites with a median of 26 sites); and Level 3: High Threat is less than 40% occupancy or fewer than 20 sites. The number of proposed occupied sites for the threshold standard (35,26,20) falls within these parameters because they were developed using the same linear regression methodology.

A second analysis pathway was also developed that resulted in very similar results. Pearson correlation models were fit to the same dataset, but 2022 was also included (2021 observations were excluded from analysis due to low monitoring sample counts during Caldor Fire) (**Figure 2**). A total of 57 sites were utilized, rather than 54 sites (Elk Point and Skyland were excluded from the first analysis pathway because they are not accessible for survey, and Burnt Cedar was excluded because it is mechanically raked). **Table 2** shows the proposed threshold standards based on the lower confidence interval band for number of occupied sites at each lake level category. **Table 3** shows the values generated by the regression estimates of the mean and lower and upper 95% confidence intervals for total number of sites occupied, percent of all 57 sites occupied, and percent of all surveyed sites occupied.

The similarity of results between the linear regression approach (35,26,20 occupied sites) and the Pearson correlation models (34,26,17) provide further evidence of the strong relationship between lake level and number of occupied sites. The higher number of sites in the linear regression is slightly more conservative. Both approaches support the central management goals of the Conservation Strategy to

“Protect TYC plants and habitat on public lands” (Goal 1) and “Manage TYC populations to promote persistence” (Goal 3).

Table 2 Implied population targets based on the lower confidence interval band for number of occupied sites at each lake level category.

Elevation Class	# of Sites Occupied Threshold Standard
Low (<6,225)	34
Transition (6,225-6,226.5)	26
High (>6,226.5)	17

Table 2. Pearson correlation model regression estimates of the mean and lower and upper 95% confident intervals for total number of sites occupied, percent of all 57 sites occupied, and percent of all surveyed sites occupied.

Elevation	# Sites Occupied	% of All Sites Occupied	% of Surveyed Sites Occupied
6,223	41 [38, 45]	73 [67, 79]	80 [74, 85]
6,224	37 [34, 40]	65 [60, 70]	71 [67,76]
6,225	33 [31, 35]	58 [54, 62]	63 [60, 67]
6,226	29 [26, 31]	50 [46, 54]	55 [52, 59]
6,227	24 [22, 27]	43 [38, 47]	47 [43, 51]
6,228	20 [17, 24]	35 [29, 41]	39 [33, 44]

