

## Water Quality and Environmental Issues in the Tahoe Keys

The Tahoe Keys Property Owners Association (TKPOA) has been protecting the quality of the water in our private lagoons and its impacts on Lake Tahoe for many years through many actions including weed harvesting, water circulation and oxygenation, water quality monitoring, as well as education and outreach. This document is placed on the TKPOA website to further inform TKPOA members, as well as the greater Lake Tahoe Basin community of our past and continuing efforts to protect the water quality of our private lagoons and their impact on Lake Tahoe.

Over the past six years TKPOA has increased its efforts to develop and institute progressive water quality programs that are focused primarily on aquatic invasive species (aquatic invasive weeds and non-native fish). Partners in these efforts include the Tahoe Regional Planning Agency (TRPA), California Department of Fish and Wildlife, Tahoe Resource Conservation District (Tahoe RCD), and Lahontan Regional Water Quality Control Board (LRWQCB).

Many TKPOA members and other stakeholders are unaware of these efforts and how they are connected to the basin-wide strategy to protect Lake Tahoe's water quality and clarity. This section of the TKPOA website is designed to inform and educate TKPOA members about the efforts to improve lagoon water quality and to protect Lake Tahoe.

If you would like to learn more about the TKPOA strategies and programs for improving water quality, please visit the following sections located in this document:

[Lagoon Water Quality](#)

[Landscape Management](#)

[Informed Use of Water Resources](#)

[Tahoe "Eyes on the Lake" and "Pipekeepers" programs](#)

[Passive Storm water runoff designs](#)

[Enforcing protection of the lagoons and Lake Tahoe](#)

[Encouraging zero phosphorus fertilizer use](#)

[Pet waste disposal services and compliance](#)

[Protecting our Wildlife neighbors](#)

[The Challenge – Changing the behaviors of our visitors & guests](#)

[Communicating with TKPOA members](#)

[Working with public agencies and neighboring communities](#)

## TKPOA Board of Directors Position Statements

[Lagoon Water Quality](#) The Tahoe Keys lagoons are connected to Lake Tahoe. Nutrients and fine sediments contained in the lagoon water can adversely impact the clarity of Lake Tahoe. In addition, the aquatic invasive species (non-native and nuisance aquatic weeds and non-native fish) can spread to other parts of Lake Tahoe by water current, wind, wildlife, boats, and other human activities.

TKPOA is working with the Lahontan Regional Water Quality Control Board (LRWQCB) to develop ways to minimize the quantity of nutrients in the Tahoe Keys lagoon water. One primary focus to reduce nutrients is to limit the discharges that runoff into the lagoons during irrigation. TKPOA is educating its members on sustainable irrigation practices and promotes the use of phosphorus-free fertilizers. TKPOA has also begun a process to notify members who are observed over-irrigating their properties and creating runoff into the lagoons.

TKPOA is also working to develop ways to minimize the quantity of fine sediments in the Tahoe Keys lagoon water. One primary method to reduce fine sediments (particulates) is by controlling runoff into storm drains from city streets and our properties. Better management of home sprinkler systems and ceasing activities like hosing off driveways, walks and patios will help not only to reduce runoff, but will conserve our water resources. TKPOA volunteers placed special “No Dumping” disks on the storm drain inlets throughout the Keys this summer as a reminder to members and guests – “If it goes down the gutter into the storm drain, it goes into the lake”.

Over the past three years, TKPOA has collaborated with TRPA and TRCD in conducting studies regarding ways to control the growth and spread of aquatic weeds. The results of those studies confirm that aquatic weeds can be controlled using harvesting (the current control method), bottom barriers, diver-assisted hand removal and aquatic herbicides. TKPOA is developing an integrated aquatic weed management plan (IMP) that will be based on the most cost-effective mix of the identified weed control methods. While harvesting, bottom barriers and hand pulling are currently allowable methods, the use of aquatic herbicides will require additional study and regulatory approval. In an effort to examine all possible control measures, the TKPOA is launching a program to comprehensively assess the impacts of aquatic herbicides to provide a scientific basis for regulatory consideration. This program is likely to take 3 years or more to complete and will include agency and stakeholder input.

[Landscape Management](#) The TKPOA Architectural Control Committee (ACC) encourages and permits private owner landscape design proposals that reduce water consumption and runoff. ACC also encourages use of water efficient native plants, while still protecting the outstanding visual and aesthetic qualities of the neighborhoods. TKPOA has designed several projects for turf-conversion on community landscapes. The association is currently working with the City of South Lake Tahoe on concepts to replace some turf areas with native plants and drip irrigation.

[Informed Use of Water Resources](#) Tahoe Keys property owners are fortunate; we own our private water company and deep well sources of supply. The association recognizes that every Californian is responsible for properly managing their use of precious resources. The TKPOA has had a water conservation program in place for several years. The TKPOA water conservation rules may be viewed at this [link](#).

California is in the grip of the third year of drought, and more stringent measures may be required to assure compliance with water conservation rules. Security and Water Company personnel will be contacting homeowners as needed to correct misuse of Tahoe Keys water. Fines may be assessed for deliberate or repeated violations.

Please keep your irrigation sprinklers correctly adjusted to avoid watering non-landscaped areas, like hardscapes and streets. Doing so eliminates waste, and the runoff that can carry particulates to the Lake.

The State of California adopted emergency regulations in July 2014 to ensure agencies and residents increase water conservation. (see attached PDF). Some of those regulations prohibit washing down driveways and sidewalks; watering of outdoor landscapes that cause runoff; using a hose to wash a motor vehicle, unless the hose is fitted with a shut-off nozzle, and using potable water in a fountain or decorative water feature, unless the water is recirculated. Violators could be fined \$500 per day. *The regulation makes an exception for health and safety circumstances.*

[Tahoe “Pipekeepers” & “Eyes On the Lake” programs](#) TKPOA supports initiatives by the League to Save Lake Tahoe (League), like “Pipekeepers” and “Eyes on the Lake”. TKPOA is co-sponsoring these programs with the League in our area. Pipekeepers and Eyes on the Lake are important programs that require volunteer resources for support, especially in searching out new infestations of invasive plants and during storm run-off events. TKPOA hosted League volunteer training sessions during 2014 and plans to host further events in 2015. For more information about these volunteer opportunities go to: <http://keptahoeblue.org/our-work/eyes/>.

[Passive storm-water runoff designs](#) Special storm water runoff designs can be considered for use in the Tahoe Keys. One such design is the low-impact curbside drain. Rather than the extremely costly standard storm-drains, low-impact curbside drains allow storm water to infiltrate soils in open areas like our parks. These special designs won't work everywhere, but can be considered under the right circumstances. TKPOA recently worked with TRPA on a snow storage management plan designed to reduce runoff, which resulted in the construction of a "rain-garden" facility near the Ala Wai tennis courts.

Every gallon of storm water runoff we prevent from entering the surface waters of our lagoons helps to protect Lake Tahoe, and improves water quality in our lagoons. Storm water run-off has been identified as a major source of particulate pollution to the Lake. TKPOA is looking into these designs with City staff for possible use on some streets in the Tahoe Keys.

[Enforcing protection of our lagoons and Lake Tahoe](#) TKPOA is stepping-up its efforts to educate homeowners about what they can do to protect the water quality in the lagoons.

See the flyer at this [link](#) for tips on how to do your part. (Flyer is in development). Owners who carelessly or deliberately disregard rules designed to protect facilities and water quality may be fined, and violations will be reported to the appropriate enforcement agencies as necessary. Some examples of violations are:

- Draining hot tubs and spas into lagoons
- Discharging foundation sump water into lagoons
- Disturbing, digging into or manipulating lagoon banks without ACC permits
- Placing foreign objects, debris, landscape trimmings, trash, building materials into the lagoons.
- Dumping or releasing any non-native or nuisance plant, animal or fish into the lagoons.
- Applying herbicides of any kind in lagoons.

[Encouraging use of “zero” phosphorus fertilizer](#) TKPOA provides handouts to property owners that educate on environmentally friendly landscaping methods. Maintenance and ACC personnel require landscape contractors working on common areas to use zero phosphorous fertilizers. A big push currently being made is to eliminate the use of phosphorous on single-family property landscape Basin-wide. Single-family homeowners should contact their landscape contractor and instruct them to use only zero phosphorous fertilizer. If you buy and apply your own fertilizers, look for the ingredients list, which may look like this 15-15-10. The center number is the phosphorous content, which should be zero - “0”. Phosphorous can run-off the landscaping into the lagoons, where it promotes the growth of algae and aquatic weeds.

[Pet waste disposal services and compliance](#) TKPOA has been a leader in providing special facilities for pet-waste disposal. These include plastic bag dispensers and sanitary disposal cans, located in several common areas and community parks. More pet-waste disposal stations will be placed on common areas during 2014. The Keys is a very popular place for residents and visitors to walk their pets. Assuring pet wastes are disposed of properly is an aesthetic, public health and environmental concern.

[Protecting our wildlife neighbors](#) TKPOA enforces stringent garbage/waste management practices with property owners and their guests, including fines. These include the absolute prohibition on curbside garbage disposal except on scheduled pick-up days (currently Friday). TKPOA provides special disposal facilities (dumpsters at the pavilion) for owners and their guests to use on non-pickup days. Exceptions are made for curbside placement of non-food wastes like landscape and yard trimmings. The TKPOA has a good record of eliminating inappropriate food sources for wildlife. However, dumpster facilities in the Tahoe Keys are not animal proof. More is being done, including converting [community dumpster](#) facilities to bear-resistant designs. We’re improving education for owners on use of birdseed, exposed pet foods, and why attracting wildlife by hand feeding is unhealthy for the animals and potentially dangerous for humans. TKPOA maintains high aesthetic standards for our properties, therefore, the [ACC does not approve individual bear-resistant storage enclosures](#) in front yards or front setbacks.

[The Challenge – Changing the behavior of our visitors & guests](#) Some TKPOA members rent or share their homes and townhomes. The owner of record is responsible for the

behavior of their visitors and guests. Protection of our lagoons and Lake Tahoe requires many rules, some of which are very complex. To assist homeowners, the association has created a "Protect our Lagoons" flyer. The Flyer may be provided to visitors and guests, to help them understand their responsibilities to the neighbors, and for protecting our special environment.

Remember, we live in an association, and our property deeds include CC&Rs (Covenants, Conditions & Restrictions). We are all responsible to maintain the rules for one-another. The "Protect Our Lagoons" flyer may be viewed at this [link](#).

[Communicating with TKPOA members](#) The TKPOA uses a variety of media and human resources in its efforts to inform and educate members and their guests.

- Pavilion office *front desk staff*. Owners, guests and visitors of the Tahoe Keys may receive a wide variety of information from a "live" person at the pavilion front desk. The staff can help you with almost any question related to the Keys, or they will find someone who has the information you need.
- The TKPOA <http://tkpoa.org/home> is the official communication forum for property owners. Here are published the association's bylaws, CC&Rs, positions on various issues, meeting and event calendars, contact lists for staff, committee, and Board members.
- The Keys Breeze *magazine* is published bi-monthly and goes to every owner of record. Members may also view back issues of the magazine on website: [http://tkpoa.org/document\\_category.asp?cat\\_id=15&name=Keys%20Breeze](http://tkpoa.org/document_category.asp?cat_id=15&name=Keys%20Breeze).
- *NEXTDOOR Tahoe Keys*. This is the newest neighborhood discussion forum put into use in 2013. At this time, more than 400 TKPOA owners have joined this website and, share information on events, security issues, and various other informative subjects. You can even place a classified ad. To join, just type "NEXTDOOR Tahoe Keys" into your web browser and follow the instructions.

[Working with public agencies and neighboring communities](#) The TKPOA actively participates in several local and basin-wide coordinating committees and working groups. TKPOA has worked with TRPA and TRCD for the study and testing of control methods for aquatic invasive plants and fish. We are working with the Lahontan Regional Water Quality Board on development of a Waste Discharge Requirement (WDR) permit, and a process for permitting the use of synthetic bottom-barriers by individual property owners. TKPOA has retained the services of Sierra Ecosystem Associates to help chart the course on environmental documentation for an Integrated Management Plan (IMP) for the TKPOA lagoons.

TKPOA is amplifying its efforts to reach out to our many neighboring communities and stakeholders to better inform them of our current efforts.