

**Basin Plan Amendments
for
Lake Tahoe Piers**

March 2019

Basin Plan Sections Affected by Proposed Amendments

The proposed amendment would involve changes to Basin Plan Chapters 4 and 5. Additions are underlined and deletions are in strikethrough font.

Changes to Chapter 4, Section 4.1, Table 4.1-1

TABLE 4.1-1. LOW THREAT DISCHARGES THAT ARE CONDITIONALLY EXEMPT FROM WASTE DISCHARGE PROHIBITIONS

The exempt waste discharges must meet general conditions in Basin Plan section on Limited Threat Discharges, enumerated below, in addition to meeting the applicable specific conditions for discharge categories.

General Conditions for Exemption:

1. For proposed discharges to surface water, the applicant must provide information supporting why discharge to land is not practicable.
2. The discharge must not adversely affect the beneficial uses of the receiving water.
3. The discharge must comply with all applicable water quality objectives.
4. Best practicable treatment or control of the discharge must be implemented to ensure that pollution or nuisance will not occur.

Specific Conditions for Exemption:

Discharge Category	Conditions for Exemption
Atmospheric condensate from refrigeration and air conditioning systems	Must not contain chemicals or materials that would adversely affect water quality.
Groundwater from foundation drains, crawl-space pumps, and footing drains	Must not contain chemicals or materials that would adversely affect water quality.
Water main, storage tank, fire hydrant flushing	Water discharged must consist of potable water. Must use best management practices to reduce soil erosion from discharged water to a level of insignificance.
Incidental runoff from landscape irrigation	Must not contain fertilizers or pesticides. For recycled water used for irrigation, must discharge to land.
Non-contact cooling water	Must not contain biocides, anti-scalants or other additives.
Aquifer or pump testing water	Must not be in an area of known groundwater contamination. If discharged to surface water, the quality of the discharge must be substantially similar to the quality of the receiving water.

Construction dewatering	Must not be in an area of known soil or groundwater contamination where that contamination could adversely affect the discharge and/or the receiving water.
Utility vault and conduit flushing and draining	Must not contain chemicals or materials that would adversely affect water quality.
Hydrostatic testing, maintenance, repair and disinfection of potable water supply pipelines	Water discharged must consist of potable water. Must use best management practices to reduce soil erosion from discharged water to an insignificant level.
Hydrostatic testing of newly constructed pipelines, tanks, reservoirs, etc., used for purposes other than potable water supply (e.g., gas, oil, reclaimed water, etc.)	Potable water must be used in the hydrostatic test. Must not contain chemicals or materials that would adversely affect water quality. Must use best management practices to reduce soil erosion from discharged water to an insignificant level.
Disposal of treated groundwater	Treatment must remove contaminants of concern to non-detectable levels.
Pier pilings (driven), except for piers in Lake Tahoe in significant fish spawning habitat or in areas immediately offshore of stream inlets	Piles must be driven. Where the lakebed contains clayey or silty substrate, caissons, turbidity curtains, or other best management practices must be used to limit generated turbidity to smallest area practicable.
Buoys and aids to navigation	Must not contain chemicals or materials that would adversely affect water quality.
Scientific instrumentation for water quality or resources study	Must meet the general conditions for exemption.

Changes to Chapter 4, Section 4.11, in the subsection “Boating and Shorezone Recreation”

The USEPA (1993) summarizes information on a variety of shoreline protection practices. General considerations include design of all shorezone structures so that they do not transfer erosion energy or otherwise cause visible loss of surrounding shorezones; establishment and enforcement of no wake zones to reduce erosion potential from boat wakes, establishment of setbacks for upland development and land disturbance, and direction of upland drainage away from bluffs and banks so as to avoid accelerating slope erosion.

23. ~~Piers. Discharges attributable to the construction of new piers in certain habitat types in Lake Tahoe are prohibited (see Chapter 5). Although there are no specific pier-related prohibitions applicable to other lakes in the Region, the general discharge prohibitions discussed elsewhere in this Chapter apply to pier construction.~~ The Regional Board has historically regulated piers serving single family homes to a lesser extent than public piers, breakwaters, jetties, marinas, and other large in-lake construction projects. Pier construction projects throughout the Region should meet the following conditions:

- The disturbance of lake bed materials should be kept to a minimum during construction. Best practicable control technology should be used to keep suspended earthen materials out of the lake. (This may involve techniques such as installation of pilings within caissons.)
- No petroleum products, construction wastes, litter or earthen materials should enter surface waters. All construction waste products should be removed from the project site and dumped at a legal point of disposal. Any mechanical equipment operating within the lake should be cleaned and maintained prior to use.
- No wood preservatives should be used on wood which will be in contact with lake water.
- The pier owner should ensure that the project contractor is aware of these and any other applicable conditions.

Regional Board staff should continue to review proposals for shorezone and underwater construction on a case-by-case basis through the Section 401 water quality certification process, and the Board should consider waste discharge requirements where necessary to protect water quality.

Changes to Chapter 5, Section 5.2, Page 5.2-1, in the subsection “Discharge Prohibitions for the Lake Tahoe Hydrologic Unit (HU)”

Section 13243 of the Water Code gives Regional Boards, in Basin Plans or waste discharge requirements, authority to “specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.” Regional Boards may take enforcement action for violations of waste discharge prohibitions. The Water Code may also contain waste discharge prohibitions that are applicable in the Lahontan Region.

Waste discharge prohibitions applicable within the Lake Tahoe Hydrologic Unit are discussed below. Regionwide prohibitions also apply in the Lake Tahoe Hydrologic Unit. See section 4.1 for regionwide prohibitions.

Waste discharge prohibitions in this chapter do not apply to discharges of stormwater when wastes in the discharge are controlled through the application of management practices or other means and the discharge does not cause a violation of water quality objectives. For existing discharges, waste discharge requirements, including, if authorized, NPDES permits, may contain a time schedule for the application of control measures and compliance with water quality objectives. In general, the Regional Board expects that control measures will be implemented in an iterative manner as needed to meet applicable receiving water quality objectives.

Water Code sections 13950 through 13952.1 include special water quality provisions for the Lake Tahoe Basin related to sewage disposal that function as waste discharge prohibitions. Exemptions to those prohibitions are also identified within those sections of the Water Code.

Discharge Prohibitions for the Lake Tahoe Hydrologic Unit (HU)

1. The discharge attributable to human activities of any waste or deleterious material to surface waters of the Lake Tahoe HU is prohibited.

An exemption to this prohibition may be granted whenever the Regional Board finds all of the following:

- a. The discharge of waste will not, individually or collectively, directly or indirectly, adversely affect beneficial uses, *and*
 - b. There is no reasonable alternative to the waste discharge, *and*
 - c. All applicable and practicable control and mitigation measures have been incorporated to minimize potential adverse impacts to water quality and beneficial uses.
2. The discharge attributable to human activities of any waste or deleterious material to land below the highwater rim of Lake Tahoe or within the 100-year floodplain of any tributary to Lake Tahoe is prohibited.
 3. The discharge attributable to human activities of any waste or deleterious material to Stream Environment Zones (SEZs) in the Lake Tahoe HU is prohibited.
 4. ~~The discharge or threatened discharge attributable to new pier construction of wastes to significant spawning habitats or to areas immediately offshore of stream inlets in Lake Tahoe is prohibited.~~

The Regional Board may grant exemptions to Prohibitions 2, and 3 ~~and 4~~, above, for projects relocating existing structures below the highwater rim of Lake Tahoe, within the 100-year floodplain, or within an SEZ, ~~in spawning habitat or offshore of stream inlets to Lake Tahoe~~ where the area of the structure is relocated on the same parcel or within a defined project area and where the following finding can be made (a “project area” may include multiple adjacent or non-adjacent parcels):

The relocation must result in net or equal water quality benefit. Net or equal benefit is defined as an improvement in or maintenance of function of the associated area below the highwater rim of Lake Tahoe, 100-year floodplain, or SEZ, ~~spawning habitat, or stream inlet~~. Net or equal benefit may include, but is not limited to, one or more of the following:

- a. Relocation of structure to an area further away from the stream channel or wetlands;
- b. Protection of restored 100-year floodplain or SEZ or an equivalent area (at a 1:1 ratio for floodplain or 1.5:1 for SEZ) of offsite 100-year floodplain or SEZ through deed restriction or conveyance to a mitigation bank or land conservancy or similar. For projects involving disturbance of wetlands, offsite mitigation may involve larger mitigation ratios;
- c. For projects involving the relocation of more than 1000 square feet of impervious coverage within a 100-year floodplain or SEZ, a finding, based on a report prepared by a qualified professional, that the relocation will improve the functioning of the floodplain or SEZ and will not negatively affect the quality of existing habitats.

- d. For pier relocation projects in spawning habitat, a finding that equivalent or greater area of spawning habitat is restored or created.

Changes to Chapter 5, Section 5.14, in the subsection “Boating and Shorezone Recreation”

Boating and Shorezone Recreation

The “Shorezone Protection” section of this Chapter (see Section 5.7) summarizes water quality problems related to shorezone development, TRPA's general shorezone protection programs, and guidelines for Regional Board use in evaluation of shorezone projects. Chapter 4 of this Basin Plan includes a general discussion of water quality problems and control measures related to boating and shorezone recreation activities. Problems include wastewater disposal from boats, fuel spills from boats and marinas, marina stormwater pollutants, and resuspension of sediment and associated pollutants through dredging and underwater construction. These problems are of special concern in the Lake Tahoe Basin because of the sensitivity of the Lake and the heavy recreational use it receives. The following is a summary of special control measures by problem type.

Vessel Wastes

The discharge of vessel wastes to Lake Tahoe is prohibited, but violations still occur. Many of the boats in use have built-in toilets and holding tanks or portable toilets, creating a large potential for intentional or unintentional dumping of wastewater into Lake Tahoe. Many boats are not equipped with self-contained heads, and there is no inspection program. Discharge of vessel toilet wastes introduces pollution that can affect domestic wastewater intakes from Lake Tahoe and other lakes such as Fallen Leaf and Echo Lakes. Although not in themselves a serious threat to the clarity of Lake Tahoe, vessel wastes contribute cumulatively to nutrient loading and present a public health risk.

In California, the Harbors and Navigation Code authorizes the State Board to require marinas or other marine terminals to install pumpout facilities. The State Board has adopted procedures by which the Regional Boards can determine the need for pumpout facilities, and request the State Board to require specific terminals to install them. Under these provisions, the Lahontan Regional Board shall continue to determine the need for additional pumpout facilities at Lake Tahoe, and request the State Board to require installation where such facilities are necessary. The Regional Board currently requires that all public marinas on the California side of Lake Tahoe have pumpout facilities available.

The U.S. Coast Guard is primarily responsible for enforcing prohibitions against vessel waste discharges to Lake Tahoe, and should include an inspection program as part of its enforcement effort. Other federal and state agencies should assist the Coast Guard. Permits issued by the U.S. Army Corps of Engineers, state lands agencies, and TRPA for marinas, buoys, and other facilities serving vessels on Lake Tahoe should require compliance with the prohibitions against discharge of vessel wastes. These agencies should also assist in the inspection program. The Regional Board shall assist the Coast Guard in the program to enforce the discharge prohibitions and shall bring its own enforcement actions where necessary.

The Regional Board has adopted waste discharge requirements for existing marinas at Lake Tahoe which include provisions for vessel waste pumpout facilities, and should continue to adopt waste discharge requirements for new and expanded marinas.

Piers

In recognition of the potential adverse impacts of continued proliferation of piers and other mooring structures in Lake Tahoe, the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (DFW), and the Nevada Department of Wildlife have adopted policies recommending strongly against the approval of new facilities within sensitive fish habitat (USFWS 1979 & 1980, DFW 1978). See Figure 5.8-1.

Piers and jetties should not be allowed to block currents. They must be constructed so as to allow current to pass through. Pier construction must be prohibited in significant spawning habitat. Pier construction should also be prohibited in waters in or immediately offshore of biologically important stream inlets. Pier construction must be discouraged in prime fish habitat areas. Further study of the effects of piers should be continued. The controls called for here may be modified, or additional controls required, based on the findings of that study.

Section 5.2 contains the following prohibition against new pier construction in significant spawning habitat or offshore of biologically important stream inlets:

“The discharge or threatened discharge, attributable to new pier construction, of wastes to significant spawning habitats or to areas immediately offshore of stream inlets in Lake Tahoe is prohibited.”

The prohibition against discharges immediately offshore of stream inlets shall apply up to a thirty-foot contour. Discharges to the inlets themselves are subject to the prohibition against discharges to Stream Environment Zones.

The determination whether an area is significant spawning habitat shall be made on a case by case basis by permitting agencies, in consultation with the USFWS and state fish and wildlife agencies. Maps which have been produced by these agencies may be used as a guide. Because of the scale on which the maps have been produced, however, and the possibility that additional information may become available, the maps will not necessarily be determinative. [TRPA has adopted fish habitat maps for Lake Tahoe which differ somewhat from those prepared by the fish and wildlife agencies, and has designated additional important stream inlets by ordinance.]

The term “pier,” as used in the prohibition above, includes any fixed or floating platform extending from the shoreline over or upon the water. The term includes docks and boathouses. The prohibition does not apply to maintenance, repair, or replacement of piers at the same site.

Under Section 401 of the federal Clean Water Act, the U.S. Army Corps of Engineers cannot issue any permit if the state water quality agency denies certification that the permitted discharge is in compliance with the applicable state water quality standards (see the separate section of this Chapter on 401 and 404 permits). The prohibitions in this plan are part of California's water quality standards for Lake Tahoe, effectively precluding the Corps of Engineers from issuing permits for pier construction in violation of the prohibitions.

~~This plan does not prohibit the use of mooring buoys, which are now used as alternatives to piers in many cases, although the USFWS (1979) has recommended against their approval in sensitive fish habitat because of the adverse effects of powerboat use.~~

~~Permitting agencies should also discourage construction of new piers in prime fish and aquatic habitat, emphasizing alternatives such as use of existing facilities. These permitting agencies include the Corps of Engineers, state lands agencies, the Tahoe Regional Planning Agency, and the Lahontan Regional Board. Where permits for pier construction are issued, they should require construction practices to contain any sediment disturbed by placing structures in Lake Tahoe. When piers or other structures are placed in Lake Tahoe, they should be surrounded by vertical barriers to contain any disturbed sediment. The permits should also prohibit any construction that will alter the flow of currents in Lake Tahoe. If necessary, the Lahontan Regional Board shall issue permits to require compliance with practices to prevent water quality problems from construction of piers and other shorezone structures. In addition to the special considerations above, such permits should reflect the regionwide criteria for piers and shorezone construction in Chapter 4 of this Basin Plan.~~

~~In reviewing pier projects, the California State Lands Commission generally requires that construction be done from small boats, and that construction wastes be collected on these vessels or on tarps and disposed of properly. The State Lands Commission also implements a special plan for protection of the endangered shorezone plant, Tahoe yellow cress. Pier construction, and other underwater/shorezone construction activities, are subject to all applicable water quality standards contained in this Basin Plan.~~

Dredging

Chapter 4 of this Basin Plan includes additional discussion of water quality problems related to dredging, and regionwide dredging guidelines. Construction (e.g., of piers) and dredging in Lake Tahoe can cause localized pollution problems, by disturbing sediments: this increases turbidity and reintroduces nutrients that had settled out of the water. The sediments may also be redeposited elsewhere. Construction in Lake Tahoe may also affect current flow, causing currents to disturb bottom sediments. If disposal of dredged material is done improperly, nutrients from these wastes could cause water quality problems. Dredging and disposal of marina sediments are of special concern because very high levels of tributyltin (an antifouling ingredient of boat paint) have been detected in sediments and biota of one Lake Tahoe marina.

Methods of dredging that stir up bottom sediments, as when backhoes or drag lines are used, should not be permitted. Under most circumstances, only suction dredging should be allowed. However, even with turbidity barriers, suction dredging followed by interim storage of dredged material in an “inner harbor” situation may create more problems than bucket dredging. Localized problems related to turbidity may result from repeated disturbance of stored dredged material for final disposal. Regional Board staff should evaluate proposed dredging methods based on site-specific circumstances and require the method that results in the lowest degree of threat to water quality. Disposal of dredged materials must follow practices to prevent sediments from being discharged into Lake Tahoe. The Best Management Practices Handbook includes BMPs for the dredging process and for disposal of dredged material. Consideration should be given to the use of dredged material in reclamation of abandoned mines, quarries, and borrow pits outside of the Tahoe Basin.

The Regional Board staff review all proposed dredging projects in the California portion of the Lake Tahoe Basin and should not permit the dredging unless the practices called for in this plan are followed.

Dredging and filling activities are subject to the Regional Board discharge prohibitions and exemption criteria discussed elsewhere in this Chapter.

Dredged material may be disposed of inside or outside of the Lake Tahoe Basin, but the Regional Board will set effluent limitations based on the numbers in Table 5.6-1 and on appropriate receiving water standards. Proposals for dredged material disposal in shorezones, floodplains or SEZs will be evaluated against the relevant discharge prohibitions (see the section of this Chapter on development restrictions).

TRPA's regulations on dredging techniques and discharge standards are set forth in the BMP Handbook.

Marinas

The Lahontan Regional Board has maintenance waste discharge requirements on all marinas in the California portion of the Lake Tahoe Basin which address stormwater discharges, fueling and sewage disposal operations. New or revised requirements should be adopted to address any new marina construction activity or changes in the nature of discharges or threatened discharges from existing marinas. A detailed discussion of water quality problems and control measures associated with marina discharges is provided in a regionwide context in Chapter 4 of this Basin Plan. As noted in that Chapter, some marinas may require stormwater NPDES permits.

TRPA regulates the creation, expansion, and remodeling of marinas in the Lake Tahoe Basin through its Regional Plan limits on recreation capacity (in "People at One Time," or PAOT) and through its master planning and permitting processes. Following a lengthy interagency review period, which included Regional Board staff input, TRPA adopted detailed guidelines for the preparation of marina master plans (TRPA 1990). These guidelines require each master plan to include a physical plan, an operations plan, a mitigation plan, and a monitoring plan. Water quality-related topics to be addressed include land coverage, fish habitat, shoreline stability, inspection and maintenance of boat washing and fueling facilities, wastewater pumpout facilities, stormwater control, spill prevention and response, dredging, and marina water treatment systems. The guidelines also summarize shorezone development standards for new and expanded marinas from TRPA's Code of Ordinances, and provide guidance on the design of breakwaters, jetties, and shoreline protection structures.

Although conceptual proposals have been made for marina water treatment systems, none are currently operating in the Lake Tahoe Basin. TRPA's guidelines state that, in the broad sense, "any treatment which is employed to improve and maintain water quality would be a component of the water treatment system." Possible treatment methods discussed include artificial circulation and aeration, pretreatment of stormwater discharges, and interception of stormwater constituents from driveways, launching ramps, and boat washing facilities by slotted drains directed into sumps which can be pumped and possibly equipped with absorbent material. If tributyltin is found to be a problem, marina sediments containing it may have to be removed.

The TRPA guidelines state that commercial marinas and harbors are required to have public restrooms, fueling facilities, chemical fire retardant distribution systems, and pumpout facilities for boat sewage. Disposal facilities for portable sewage containers should also be provided. Prevention of boat sewage waste pollution will be in accordance with an enforcement program to be developed by the Marina Owners Association and approved by TRPA. Boat washing facilities, if any, must be connected to a sewer system or an acceptable alternative such as a debris trap and sump which will be emptied regularly. Connections to sewer systems may require special arrangements with the service district such as permits, pretreatment of discharges, and fees for service. Gas pumping facilities are required to have emergency and standard shut-off systems. A water treatment system for waters contained within the marina must be provided.

Fuel, sewage pumpout and portable sanitation flushing facilities at marinas need to be carefully placed. The TRPA guidelines state that they should be located in a convenient place to encourage use by all boaters (including boaters from private piers and non-commercial moorings). Emergency spill containment equipment must be at hand at such facilities, not stored ashore.

TRPA's marina master plan guidelines also provide guidance on environmental analysis, including directions for cumulative impacts analysis. In 1994, a regionwide study and environmental document were in preparation to evaluate the cumulative impacts of potential marina expansion on Lake Tahoe.

Regional Board staff should continue to participate in interagency review of proposed marina master plans and marina development projects. Proposals for "experimental" facilities such as marina water treatment systems should be carefully evaluated on a case-by-case basis.

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