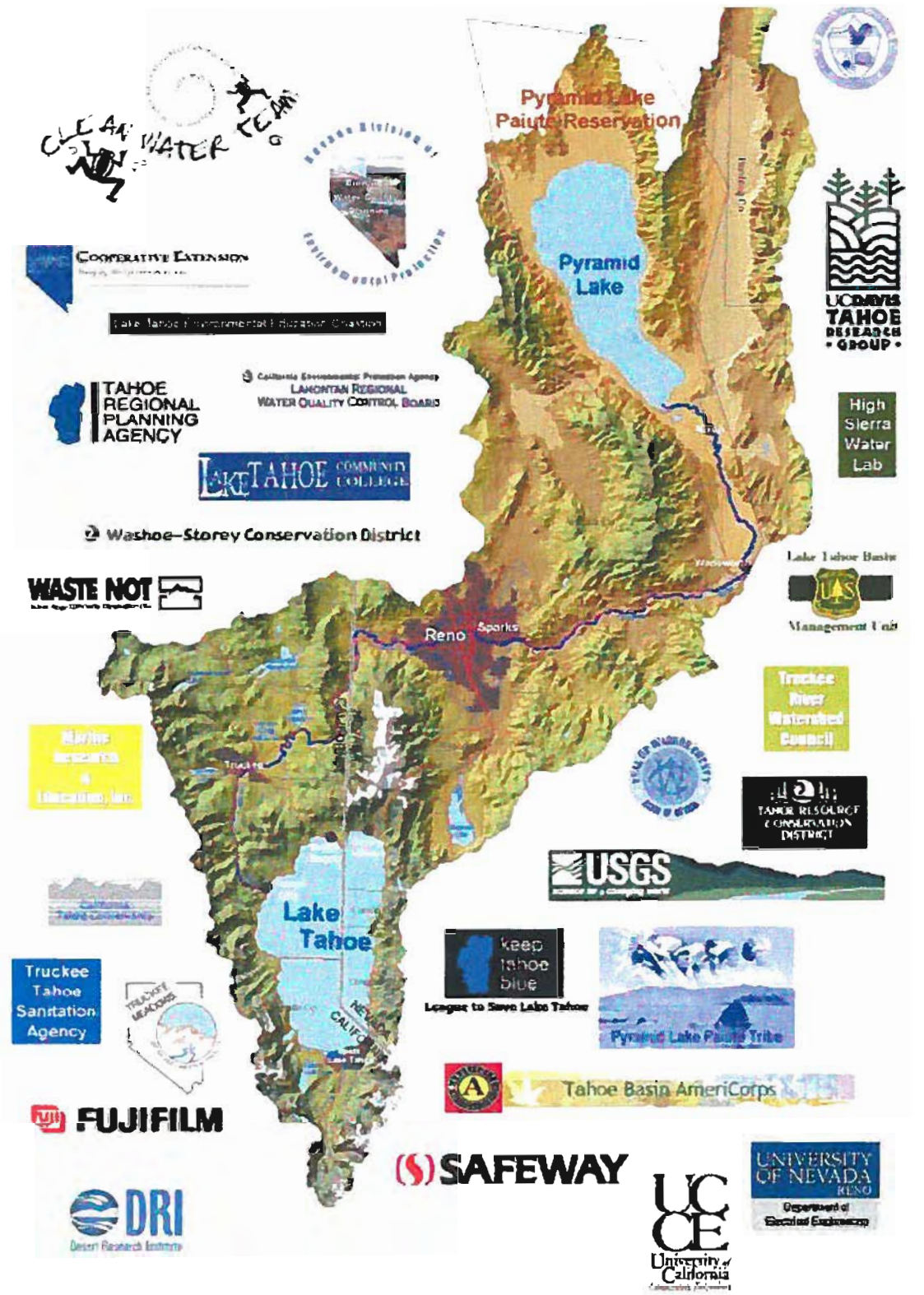
Lake Tahoe and Truckee Watershed Annual Snapshot Day



Introduction

The sixth annual Snapshot Day was held on May 20, 2006 in the Lake Tahoe and Truckee River watersheds. Two hundred sixteen committed citizen-volunteers, working closely with many water quality management agencies, participated in gathering water quality information in the form of visual assessments, photos, and water quality data at 95 locations (Table 1). This can be compared to 100 volunteers at 44 locations in 2001, 313 volunteers at 112 locations in 2002, 250 volunteers at 125 locations in 2003, 244 volunteers at 119 locations in 2004, and 227 volunteers at 105 locations in 2005.

Table 1: Snapshot Day 2006

	Volunteers	Locations
North Shore Lake Tahoe	31	22
South Shore Lake Tahoe	59	27
Lake Tahoe	10	7
Middle Truckee River	28	21
Lower Truckee River	88	18
Totals for 2006	**216***	**95**
*excludes duplicate samplers		

This collaborative effort was planned and coordinated by Lake Tahoe Environmental Education Coalition (LTEEC), with assistance from Nevada Division of Environmental Protection (NDEP), the City of Reno, Tahoe Regional Planning Agency (TRPA), and the Truckee River Watershed Council (TRWC). The Citizen Monitoring Working Group includes private citizens as well as representatives from non-profit organizations, agencies, and the academic community. Organizations involved in planning and operating this event included:

- California State Water Resources Control Board (SWRCB)
- Citizens at Fallen Leaf Lake
- City of Reno
- Incline Village General Improvement District (IVGID)
- Lahontan Regional Water Quality Control Board (LRWQCB)
- Lake Tahoe Community College (LTCC)
- Lake Tahoe Environmental Education Coalition (LTEEC)
- Marine Research and Education (MR&E)
- Nevada Division of Environmental Protection (NDEP)
- Nevada Division of State Lands (NDSL)
- Sierra Nevada College (SNC)
- Tahoe Regional Planning Agency (TRPA)
- Tahoe Resource Conservation District (TRCD)
- Truckee River Watershed Council (TRWC)
- U.S. Forest Service (USFS)
- UC Davis Tahoe Research Group (UCD TRG)
- University of California Cooperative Extension (UCCE)
- University of Nevada Cooperative Extension (UNCE)
- University of Nevada Reno (UNR) Electrical Engineering Department

The citizen-monitoring program of the California State and Regional Boards is the *Clean Water Team*, and the participating volunteers in the Lake Tahoe and Truckee River watersheds have adopted that moniker as well. Volunteers from Lake Tahoe, Fallen Leaf Lake, Truckee and Reno joined together to make the Fifth Annual Snapshot Day event a watershed-wide effort.

What is Snapshot Day?

Snapshot Day is a one-day, volunteer-based event designed to collect watershed information during one point in time. Volunteer "team leaders" are trained, and these leaders accompany teams of volunteers to various pre-determined sites to collect information relative to the health of our watersheds. The purpose of this effort is two-fold: 1) to promote environmental education and stewardship, and 2) to collect valuable water quality information. While there is a great deal of high quality agency and university-sponsored monitoring taking place in the region, there is still insufficient information to adequately assess the status of all of the aquatic resources in the Truckee River and Lake Tahoe Basin watersheds. With proper training and quality assurance, community volunteers can help fill this void by providing valuable information for watershed management and pollution prevention.

Citizen Monitoring: The Clean Water Team

The mission of the Clean Water Team citizen monitors is to produce environmental information that is needed to protect the chemical, physical and biological integrity of aquatic resources within the Truckee River and Lake Tahoe Basin watersheds. The Citizen Monitoring Working Group of the Lake Tahoe Environmental Education Coalition and its partners realize that hands-on training will inform and engage the community in effective watershed stewardship. This team is one of the nine working groups of LTEEC whose goal is to support coordinated public outreach education efforts throughout the Tahoe Basin.

The goals of the Citizen Monitoring Working Group are to:

- Build awareness of water quality issues, aquatic resources and pollution prevention
- Screen for water quality problems, including the identification of sources of pollution and detection of illegal activities (i.e., chemical spills, filling of wetlands, diversions, illicit discharges, destruction of stream environment zones (SEZs), non-compliance with ordinances or regulations in place to protect natural resources, etc.)
- Assess the status and trend of valued biologic and ecologic resources within the watershed
- Provide water quality data that may be: 1) compared to TRPA's Environmental Thresholds and/or water quality standards set by the States of California and Nevada; or 2) used in long term trend analyses

- Provide baseline water quality data for un-monitored waters to determine how they compare to the water quality standards
- Provide data for evaluating the effectiveness of restoration activities (also called best management practices, or BMPs) and various other pollution control strategies

It is important to note that citizen monitoring is designed to supplement existing agency monitoring efforts; all information is provided to the regulatory and resource management agencies, whose responsibility it is to protect water quality.

Methods

This report covers the Lake Tahoe and Middle Truckee River portions of Snapshot Day 2006, as well as a summary of all Snapshot Day data collected since 2001 for all sites. Please see Attachment 1 for information pertaining to the Lower Truckee River sites for 2006.

Citizen monitoring "team leaders" were provided training during the month prior to Snapshot Day (May, 2006). Team leader trainings covered protocols for visual observations, photo-documentation, water quality field measurements (temperature, pH, conductivity, dissolved oxygen), and water sampling (grab samples sent into the laboratory for subsequent analysis of nutrients, coliform, and turbidity). Each monitoring team leader was required to attend at least one session prior to the field day. Training for the Lake Tahoe watershed team leaders was taught by Rita Whitney, Tahoe Regional Planning Agency, Leslie Allen (LTEEC), and Jaymee Willison. Two training sessions were held at Lake Tahoe: one in South Lake Tahoe at the Lake Tahoe Community College (LTCC) and one in Incline Village at Sierra Nevada College (SNC). Training for the Middle Truckee River was led by Beth Christman of the Truckee River Watershed Council at the Sagehen Creek Field Station.

Visual observations and photo-documentation were performed according to the procedures developed by the SWRCB Clean Water Team. The standardized observation form, the *California Stream and Shore Walk Visual Assessment Form*, was slightly revised to better apply to the region. At least three photos were taken at each sampling site (bed conditions, view across stream and view upstream from the starting point). All stream-walks were initiated from a downstream position, traveling upstream.

A variety of instruments and kits were used on Snapshot Day by the volunteers. The majority of the monitoring teams were assigned armored Envirosafe thermometers (alcohol filled, 0.5° C resolution) or hand-held digital thermometers (0.1° C resolution), non-bleeding Whatman pH indicator strips (0.5 pH unit resolution), hand-held Oakton TDS Tester Conductivity meters (10 µS/cm resolution), hand-held Oakton Conductivity Low+ meters (1 µS/cm resolution), and Chemet dissolved oxygen kits (colorimetric, indigo carmine dye reaction, 1 mg/L resolution below 6 mg/L and 2 mg/L resolution above 6 mg/L). Most of these instruments/kits were provided via funding from University of Nevada Reno (UNR) Electrical Engineering Department, through a Proposition 13 grant from the California SWRCB, or through a Truckee Tahoe Community Foundation

grant with some other instruments/kits loaned from the California SWRCB, US Environmental Protection Agency (US EPA), LTCC, and others. Some of the monitoring teams were equipped with higher resolution instruments provided by California SWRCB, SNC, TRPA, TRWC, USFS, US Geological Survey (USGS), UCD TRG, and NDEP. Turbidity meters, to be used at the staging locations, were supplied by TRWC and TRPA. All of the instruments and kits were calibrated and tested/standardized at a quality control session held one day prior to the event.

All observations, photos, field measurements and samples were taken between 9:00 a.m. and 12:00 noon on May 20, 2006. Samples were kept chilled with ice or blue ice in coolers from the point of collection until arrival at the lab for analysis. Coliform samples were collected in sterile Whirl-paks and nutrient and turbidity samples were collected in clean (acid rinsed) Nalgene® plastic bottles. Samples were brought to four centralized locations: LTCC, SNC, TRWC office, and the WSCD office. Coliform samples were transported from these drop off points and delivered to the U.S. Geologic Survey. The analysis procedure for fecal coliform was initiated within 6 hours of sample collection. (Note: Those samples not received within the permitted time period were excluded from analysis.)

Turbidity samples were run from the grab samples on the afternoon of Snapshot Day, along with replicate testing of field measurements such as pH and conductivity. Nutrient samples were kept refrigerated and then analyzed by High Sierra Lab within the allotted holding times for the various constituents.

Site Locations

Volunteers gathered data at 95 locations, including multiple reaches within some streams, in the Lake Tahoe and Truckee River watersheds (see maps in appendix) as follows:

Lake Tahoe (On Lake):

- South Shore Lake Tahoe, Ski Run Marina and in Lake
- South Shore at Bijou Creek outlet
- South Shore of Timber Cove
- South Shore at Reagan Beach
- East Shore Lake Tahoe at Kahle Drive
- East Shore Lake Tahoe at Round Hill Pines Resort

Lake Tahoe Tributaries, South Shore:

- Angora Creek upstream of Tahoe Blvd. Bridge
- Angora Creek at golf course
- Angora Creek at Washoe Meadows
- Bijou Creek at mouth
- Bijou Creek above Pioneer
- Bijou Park Drainage, Culvert into Ski Run Marina
- Bijou Park Drainage blw Hansen's Resort
- Bijou Park Drainage at Verdon Rd.
- Burke Creek at mouth

- Fallen Leaf Lake
- Glen Alpine Creek (Fallen Leaf Lake)
- Heavenly Creek abv confluence with Trout Creek
- Heavenly Creek abv Pioneer Trial
- McFaul Creek at mouth
- McFaul Creek blw Hwy 50
- Meek Creek at mouth
- North Zephyr Creek at mouth
- North Zephyr Creek, upstream of bridge
- Tahoe Keys, Marina and Lagoon
- Tallac Creek at mouth
- Taylor Creek at mouth
- Trout Creek at mouth
- Trout Creek near confluence with Upper Truckee
- Trout Creek near Highway 50
- Upper Truckee River at mouth
- Upper Truckee River at Elks Club
- Upper Truckee River, Xmas/Grass Valley

Lake Tahoe Tributaries, North Shore:

- Barton Creek at Star Harbor
- Bonpland Creek at mouth
- Burton Creek at Star Harbor
- Dollar Creek at mouth
- First Creek
- Griff Creek at mouth
- Homewood Creek at mouth
- Hatchery Creek near Star Harbor
- Incline Creek at mouth
- Kings Creek
- Lake Forest Creek at mouth
- Madden Creek at mouth
- Mill Creek
- Quail Lake Creek at mouth
- Rosewood Creek
- Secret Harbor Creek at mouth
- Slaughter House at mouth
- Snow Creek downstream of Highway 28
- Tahoe City State Park
- Tahoe City Urban Ditch at mouth
- Third Creek at mouth
- Tunnel Creek at mouth
- Watson Creek at mouth
- Wood Creek at mouth

Truckee River Watershed – Middle Truckee River:

- Alder Creek
- Bear Creek
- Little Truckee River blw Boca Dam
- Cabin Creek

- Cold Creek
- Davies Creek
- Donner Creek at Hwy 89
- Donner at Donner Lake outlet
- Union Valley Creek
- Gray Creek
- Martis Creek at mouth
- Martis Creek at ACOE upstream border
- Pole Creek
- Prosser Creek
- Sagehen Creek
- Squaw Creek
- Truckee River at two different locations:
    - Big Chief Corridor
    - Regional Park
- Trout Creek at mouth
- Trout Creek at Bennett Flat
- Upper Little Truckee River

Truckee River Watershed – Lower Truckee River:

- Alum Creek
- Chalk Creek
- Davis Creek
- Dry Creek
- Evans Creek
- Galena Creek
- Hunter Creek
- North Truckee Drain
- Pyramid Lake
- Roberts Creek
- Steamboat Creek
- Thomas Creek
- Truckee River above Nixon Bridge
- Truckee River at Idlewild Park
- Truckee River at McCarran Ranch
- Truckee River at Rock Park
- Truckee River near Wadsworth Bridge
- White's Creek

**** Results from the Lower Truckee River can be found in Attachment 1**

Results for Lake Tahoe and Middle Truckee River

All results for the Lower Truckee River can be found in Attachment 1.

Water temperature for Lake Tahoe and the Middle Truckee River watersheds ranged from 3.3 – 21.3° Celsius (C). The highest measurement this year was from the Upper Truckee River at the mouth. Generally, cooler water temperatures are considered better habitat for aquatic life in mountain streams and lakes since colder water contains more dissolved oxygen, an essential ingredient for fish and invertebrates. Higher temperatures promote nutrient

solubility and can occur as a result of low flow (shallow) conditions, and/or a lack of canopy (tree) cover along stream banks, which acts to shade and thus prevent solar heating of the water.

Table 2: Beneficial Uses of the State's Waters

Water quality standards are established to protect beneficial uses of each State's waters. The most common beneficial uses include drinking water, recreation and fisheries. When a water quality standard is established, the first step is to identify the beneficial uses sensitive to the parameter. Then criteria are established based on the levels needed to protect the sensitive uses.

In many Sierra streams, propagation of cold-water fish (i.e. trout or salmon) is a designated beneficial use of the water. In such streams, numerical and narrative water quality standards generally are set at levels that will "support the beneficial use" of a cold water fishery. Such streams generally require cooler temperatures (ranges adequate for Rainbow trout survival shown below) and higher dissolved oxygen content than water in streams and lakes that do not have cold-water fishery as a designated beneficial use. Cold-water fish also require habitat characteristics that promote spawning (clear gravel beds, riffles), rearing habitat (glides and pools) and adequate food sources such as macroinvertebrates (mayfly, nymphs, stonefly nymphs, and caddisfly larvae). Such characteristics can be monitored, but they do not usually have numeric standards.

(Note that dissolved oxygen, temperature, total suspended solids (TSS) and turbidity are parameters directly related to habitat for which most waters generally have standards. Because macroinvertebrates are believed to be a primary indicator of stream health as related to fisheries, both LRWQCB and NDEP are in the process of developing an Index of Biologic Integrity (IBI). These are basically standards for benthic macroinvertebrates.)

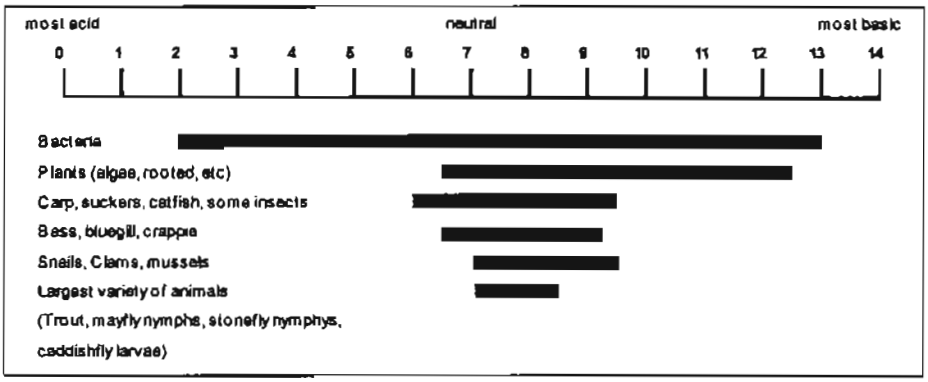
Species	Growth	Maxima	Spawning*	Embryo Survival**
Rainbow Trout	19°C (66 °F)	24°C (75 °F)	9°C (48 °F)	13°C (55 °F)

* The optimum or mean of the range of spawning temperatures reported for the species.
** The upper temperature for successful incubation and hatching reported for the species.
Adapted from EPA's Draft Volunteer Stream Monitoring: A Methods Manual.

All measured **pH values** fell between 4.7 and 8, which is typical of fresh water streams or lakes in the Sierra Nevada Mountains. The low value of 4.7 was recorded from Angora Creek near the golf course. In fresh water, pH in the range of 6.5 to 8.5 should protect most organisms. Many sites had pH values lower than 6.5, with several sites showing valid responses of 5. See Appendix A for all the results.

The range of pH tolerated by organisms is shown in Table 3 below. This table comes from the *SWRCB Clean Water Team pH Fact Sheet.* An analysis of aquatic life (bio-assessment) might provide better information for determining if the pH is acceptable within these streams.

Table 3: pH Ranges that Support Aquatic Life



pH ranges that support aquatic life

Dissolved oxygen measurements ranged between 4 and 11.2 mg/L. Cold, clean water usually has levels of dissolved oxygen averaging above 6.0 mg/L, and single-measurement levels below 5 mg/L are considered dangerous for cold water aquatic life. While water quality objectives for dissolved oxygen will vary from region to region, waters that support coldwater fishes usually require that the average dissolved oxygen concentration shall not fall below 6 to 8 mg/L. The low value of 4 was taken from Slaughterhouse Creek at the mouth. Dissolved oxygen measurements of 5 mg/L were taken from Ski Run Marina, Angora Creek at Washoe Meadows, Bijou Park drainage (reaches 2 & 3), Burke Creek, and Dollar Creek.

Conductivity measurements ranged from 14 to 370 µS/cm (micro Siemens per centimeter, the units used for conductivity measurements in fresh water). Conductivity is used as an indicator of dissolved solids (e.g., minerals or salts), with higher levels associated with degraded water quality. Conductivity will vary with water source inputs from natural sources such as groundwater seepage, springs and/or geothermal activity can affect the readings. Anthropogenic sources that may affect conductivity include drainage from agricultural fields, wastewater discharge, or inputs stemming from deicing materials on the roadways. Table 4 lists some common ranges for conductivity. The numeric value of **total dissolved solids** (TDS) is roughly 65% of the numeric value of conductivity measurements however the direct relation is site specific. TDS is measured in milligrams per liter (mg/L) which are equivalent to parts per million (ppm).

There are not enough instruments to supply each site with a field conductance, so at some locations volunteers take a grab sample, which is run for conductivity and turbidity back at the staging area. Generally conductance is lower with the higher flows in spring runoff, as seen in the readings this year. The Bijou Park Drainage was the highest in the Tahoe Basin (340-370 µS/cm). The Bijou area is commonly high in the Tahoe Basin (see 2001-2006 Data Summary section below). Lake Tahoe is generally about 90 µS/cm lakewide but can be higher in turbid nearshore areas. In general, conductivity was much lower in 2006 than has been seen in most years.

Table 4: **Acceptable Ranges for Water Conductivity**

Water Type	**Conductivity** µS/cm (micro Siemens per centimeter)
Distilled Water	0.5 - 3.0
Melted snow	2 - 42
Potable water in U.S.	30 - 1500
Irrigation Supply Water	< 750

Turbidity is a measure of the amount of suspended particles in the water. Algae, suspended sediment, organic matter and some pollutants, can cloud the water making it more turbid. Suspended particles diffuse sunlight and absorb heat, which can increase temperature and reduce light available for algal photosynthesis. If the turbidity is caused by suspended sediment, it can be an indicator of erosion, either natural or man-made. High sediment loads can clog the gills of fish, foul gravel beds and smother fish eggs and benthic insects. The sediment can also carry pathogens, pollutants and nutrients.

The US EPA's recommended criteria for turbidity in streams in Eco-Region II (forested mountains in the western U.S.), is at or below 1.3 NTU (Nephelometric Turbidity Units) or less (*US EPA Ambient Water Quality Criteria Recommendations).* Higher NTU levels indicate poorer water clarity. TRPA has a nearshore turbidity standard of 1-3 NTUs, which is rarely exceeded. The Lahontan Regional Water Quality Control Board (LRWQCB) has established a standard of 3 NTUs for the Middle Truckee River, as measured by mean of monthly means.

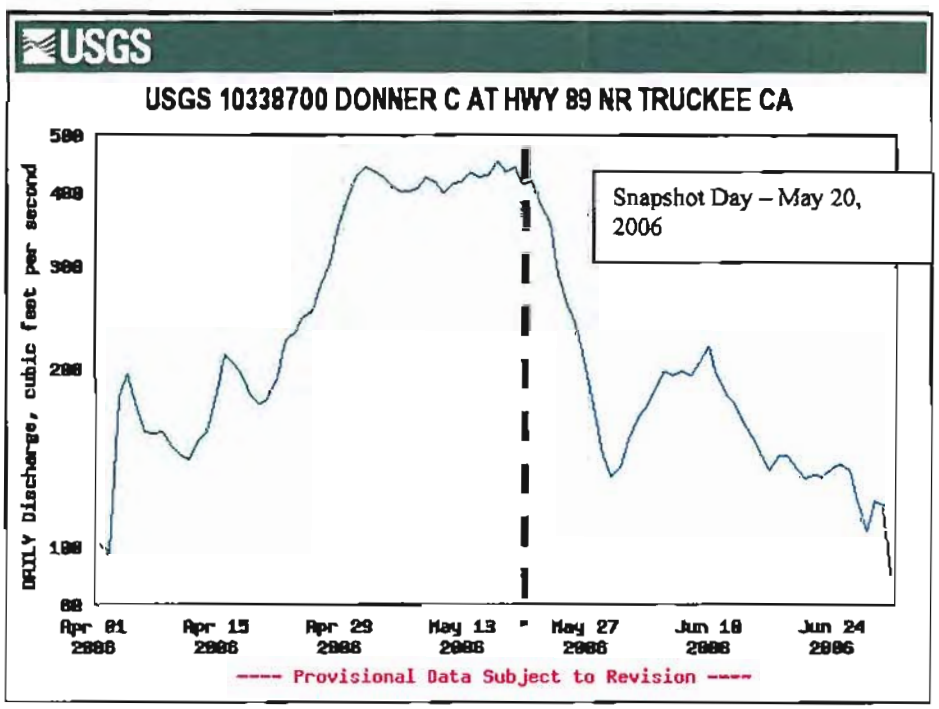
Valid turbidity data from the grab samples was determined for 42 sites. No turbidity data were collected for South Lake Tahoe streams in 2006. Values ranged from 0-38 NTU. A majority of sites (31 of 42) had levels ≥ 1.3 NTU, and 22 of those sites had levels ≥ 3 NTU. This is an excellent indicator of how turbid the waters were due to spring runoff. Only one of the sites in the Tahoe and Middle Truckee River had a value over 20 NTU which is considered fairly turbid water. This site was Gray Creek in the Middle Truckee River watershed, and it is known for its extremely high sediment production. A sediment control plan known as a Total Maximum Daily Load (TMDL) is currently being developed for Gray Creek by LRWQCB.

Another way of measuring water clarity, primarily in lakes, bays and harbors, is by determining the transparency of the water using a Secchi disk. Limited Secchi disk measurements were taken on Snapshot Day, mainly in the marina areas (Table 5). The Secchi depth readings from Snapshot Day were comparable or slightly lower than past years. The Tahoe Keys Lagoon is usually less clear than other sites, probably due to the greater boat activity and active harvesting of milfoil.

Table 5: Table Secchi Depth Measurements

Location	Secchi depth in meters
Lake Tahoe outside Ski Run Marina	7.6
Tahoe Keys Lagoon	1.0

One of the major goals of Snapshot Day, besides the public involvement and education, is to gain information on the vast numbers of streams and creeks that are not routinely measured for water quality or streamflow (volume of water). The Tahoe Basin has about 25 streams that are measured out of 64. The Middle and Lower Truckee have even less. Stream flow data for those sites that are measured was obtained for May 20, 2006 was obtained from USGS gauging stations and is entered into the summary table in Appendix A. Hydrographs of the flow for selected streams is shown below. As can be seen, the 2006 Snapshot Day was very close to the peak in the hydrographs.



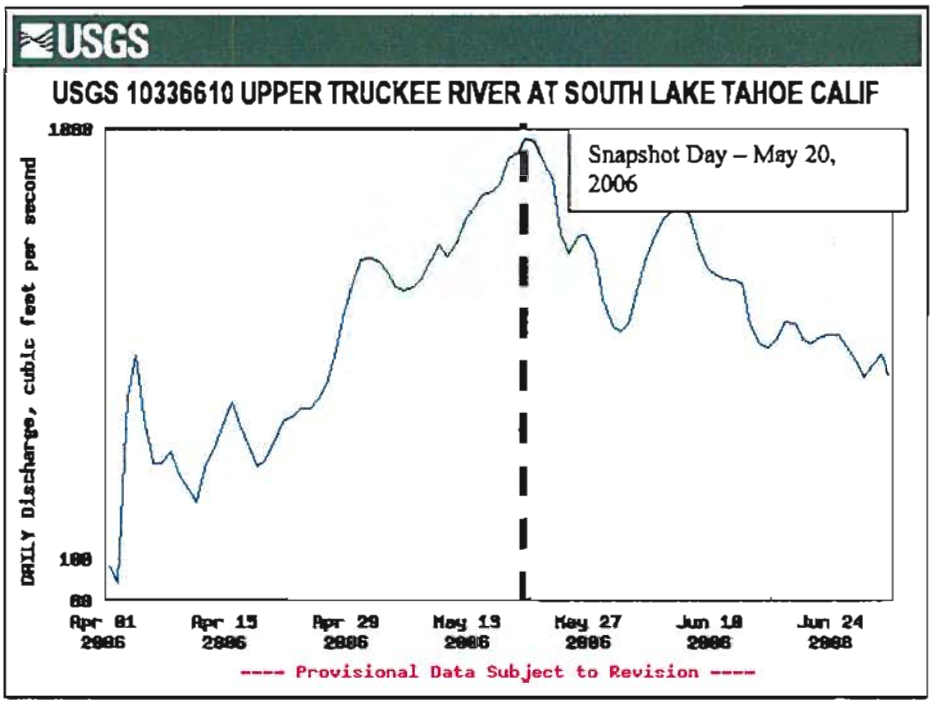


Figure 1: Stream Flow of Selected Streams on Snapshot Day

Average snow pack as of the *May 2006 NRCS Water Supply Outlook Report* for the Lake Tahoe Basin was 173 percent, with the Truckee River at 169 percent, and the Carson River at 175 percent. Reported **precipitation** for April 2006 was 220 percent of average in the Lake Tahoe Basin, 283 percent of average for the Truckee River and 246 percent of average for the Carson River. Reported **stream flow** forecasts were expected to be well above average for all three basins as of May 1, 2006, which is supported by the lower conductivity and higher turbidity seen in this year's measurements.

Visual observations at most of the study locations were indicative of generally good water quality conditions, with nothing unusual reported. Litter was reported at only 5 out of 74 sites with valid responses. Once again, many locations (26 out of 74 sites) reported visible algae.

Valid **coliform bacteria** data was developed for 20 sites in the Tahoe and Middle Truckee watersheds. Fecal coliform bacteria are a group of bacteria that are mostly found in the feces of warm-blooded animals, including humans, pets, livestock, beavers, and birds. Four of the sites had coliform levels in excess of 40 CFU/100 ml (CFU/ 100 ml are colony forming units, roughly equivalent to the number of bacteria cells, in 100 ml of sample water). One of the Lake Tahoe sites (South Lake at Bijou Creek) had an abundance of coliform – the colonies were too numerous to count. Other spots with high coliform counts were Burke Creek, McFaul Creek below Highway 50, Tahoe City Urban Basin, and Tahoe City State Park (38 CFU/100 ml).

Forty-seven samples were analyzed for various **nutrient concentrations**, including ammonia (NH_3 and NH_4^+), nitrate (NO_3^-), phosphate (PO_4^{-3}) and total phosphorus (TP). Nitrogen and phosphorus are essential for algae growth,

which is the main reason why Snapshot Day volunteers monitor for these specific nutrients. Along with excess algae growth, nutrient concentrations that are too high can lead to odors, discolored waters, loss of clarity, and nighttime oxygen depletion, which can cause fish kills in extreme cases.

Nitrogen is required by all organisms for the basic processes of life to make proteins, to grow, and to reproduce. Nitrogen is very common and found in many forms in the environment. Inorganic forms include nitrate, nitrite, ammonia, and nitrogen gas. Organic nitrogen is found in the cells of all living things and is a component of proteins, peptides, and amino acids. Nitrogen is a nutrient that stimulates the growth of algae in streams and lakes. Algae include benthic forms, attached to the rocks and sediment of the streambeds (as observed by the monitors), as well as phytoplankton. Phytoplankton are microscopic single cell algae that drift in the water and that can cause the water to have a green color. Benthic algae and phytoplankton are essential components to the ecosystem, but in relatively large concentrations of these organisms are known to reduce water clarity, or reduce oxygen levels during the evening (they consume oxygen at night). One cause for decreasing clarity in Lake Tahoe is an increase in phytoplankton populations as a result of increasing nutrient concentrations.

Ammonia is a reduced, toxic form of nitrogen and is usually associated with the decomposition of organic matter and wastes. Total ammonia consists of the un-ionized (NH_3) plus the ionized (NH_4^+) forms. Ionized ammonia is relatively nontoxic while un-ionized ammonia is toxic to fishes and aquatic invertebrates, even in low concentrations. Generally ammonia is very, very low in the Tahoe area. Most sites sampled in 2006 did have low ammonia, however eight sites had ammonia (measured as NH_4^+) concentrations greater than 10 µg/L (micrograms per liter, equivalent to parts per billion). The highest measurement was 42 µg/L, which is lower than the highest concentrations that were recorded in 2005. Bijou Creek and the Bijou Park drainage area were again among the sites with the highest ammonia concentration. See Appendix A for more results.

Additional funding from Nevada State Lands allowed for the analysis of the **organic portion of nitrogen (TKN)**. This measurement was first done for Snapshot Day in 2005 and allows for the calculation of total nitrogen. The California State Standard (established by LRWQCB) for **Total Nitrogen** ranges from 150-230 µg/L for tributaries to Lake Tahoe and 120 – 410 µg/L for the Truckee River Hydrologic unit. The exception is Martis Creek at the mouth with an objective of 1,450 µg/L – the sewage treatment plant discharges to Martis Creek near the mouth (the objective for the Truckee River below the mouth of Martis Creek is 400 µg/L). Nevada State Standards for Nitrogen are Total N for Lake Tahoe between 250 to 320 µg/L

For Lake Tahoe tributaries, 30 of 47 sites had total nitrogen concentrations greater than 150 µg/L, and 20 of those had total nitrogen concentration greater than 230 µg/L. Three sites had total nitrogen concentrations over 500 µg/L - Bijou Creek at the mouth, and Bijou Park Drainage, reaches 2 & 3. See Appendix A for more results.

Of the tributaries to the Truckee River, only one exceeded 410 µg/L – Union Valley Creek. This site regularly has had high nutrient levels. See Appendix C for graphs of nutrients in the Truckee watershed.

Phosphorous is another nutrient that stimulates algal growth. Phosphorus pollution has been identified as a serious problem contributing to the degradation of water quality in Lake Tahoe and the Truckee River. Sediment entering streams and the lake from human caused erosion of soil along roads, or from residential or commercial properties, is a common source of phosphorous. This is why it is important to implement erosion control Best Management Practices; source control is the most effective means to control erosion and runoff.

The TRPA Standard is for dissolved phosphorus or **soluble reactive phosphorous**, the form of phosphorous that is readily bio-available for the stimulation of algae growth. The standard is 100 µg/L, and there were no samples that exceeded that level in 2006.

The Lahontan Regional Water Quality Control Board standard is for **Total Phosphorus** and is more stringent than the TRPA standard: Total Phosphorus between 10-30 µg/L for tributaries to Lake Tahoe (with Cascade Creek at 5 µg/L), 8 µg/L for Lake Tahoe, 10-50 µg/L for tributaries to the Truckee River, and 50 µg/L for the California portion of the Truckee River. Twenty-one sites had total phosphorus concentrations over 30 µg/L, and most sites were above 10 µg/L. Bijou Creek and Bijou park drainage had relatively high phosphorus levels (30 – 79 µg/L) although this is lower than observed in 2005. Lake Tahoe at Sand Harbor, Hatchery Creek, Wood Creek and Union Valley Creek all had somewhat high phosphorus concentrations. More results can be in found in Appendix A.

The State of Nevada standard for annual average total phosphorous for tributaries to Lake Tahoe is 50 µg/L. Nine sites had total phosphorus measurements > 50 µg/L (see Appendix A).

Discussion of 2006 Results

It is important to remember that the measurements made on Snapshot Day were designed to represent a single point in time and do not necessarily represent average conditions. As mentioned in the results, the US EPA has recommended criteria for nutrients, Secchi depth, and turbidity. In addition Nevada, California and the TRPA have specific water quality standards and indicators generally more stringent in the Lake Tahoe Basin than of the Tahoe-Truckee region. Table 6 lists some of these standards.

Table 6: Examples of Lake Tahoe Water Quality Standards

Parameter	Standard
Temperature	Shall not exceed 15° C, surface waters of Fallen Leaf Lake (CA)
pH	7.0 - 8.4 in Lake Tahoe (CA and NV)
TDS	Shall not exceed 60 mg/L average in Lake Tahoe (CA and NV)
Dissolved Oxygen	Mean no less than 6.5 and minimum of 4.0 mg/L for Lahontan waters designated as "cold freshwater habitat" (CA)
Turbidity	Shallow water shall not exceed 3 NTU near tributaries and 1 NTU not directly influenced by streams (TRPA)
Secchi Depth	December-March average of not less than 33.4 meters for Lake Tahoe (TRPA), and a mean of 18.5 meters for Fallen Leaf Lake (Lahontan Region, CA)
Algae	Lahontan RWQCB waters shall not contain biostimulatory substances (nutrients) that cause algae to become a nuisance or to affect the water's beneficial uses (CA)
Total Nitrogen	Mean of no more than 190 µg/L (CA)
Inorganic Nitrogen	Mean of no more than 25 µg/L for most tributaries to Lake Tahoe, Nevada side of Lake Tahoe (TRPA)
Total Phosphorous	Annual average of no more than 50 µg/L for most tributaries, Nevada side of Lake Tahoe (NV) and no more than 30 µg/L for most tributaries, California side of Lake Tahoe (CA)
Soluble Reactive Phosphorous	Mean of no more than 7 µg/L for Lake Tahoe, Nevada side (TRPA)
Fecal Coliform	Log mean of 20 CFU (30 day period) and maximum of 40 CFU, (Lahontan Region, CA)

In California the LRWQCB water quality standards are composed of the beneficial uses (Table 2) and objectives described in the Basin Plan. The Lahontan Basin Plan is approved by the USEPA, and includes many watershed specific standards. The Basin Plan takes into account the natural background levels of certain constituents. For example, concentrations of dissolved solids and nutrients are relative to natural geologic conditions; in other words, some water bodies have naturally higher levels of these substances. Likewise, the State of Nevada's Division of Environmental Protection has set water quality standards throughout Nevada that are specific to certain tributaries and their beneficial uses.

Water quality standards are the foundation of the water quality-based control program mandated by the Clean Water Act. Water Quality Standards define the goals for a water body by designating its uses, setting criteria to protect those uses, and establishing provisions to protect water quality from pollutants. A water quality standard consists of four basic elements:

(1) designated uses of the water body (e.g., recreation, water supply, aquatic life, agriculture),

(2) water quality criteria to protect designated uses (numeric pollutant concentrations and narrative requirements),

(3) an antidegradation policy to maintain and protect existing uses and high quality waters, and

(4) general policies addressing implementation issues (e.g., low flows, variances, mixing zones).

For full and more detailed information on water quality objectives in California refer to the Lahontan Regional Water Quality Control Board *Basin Plan* at the following website: http://www.swrcb.ca.gov/rwqcb6/ and select "Available Documents." For water quality standards in Nevada see the following website: http://ndep.state.nv.us/nac/445a119.pdf or visit the NDEP Bureau of Water Quality Planning website at: http://ndep.state.nv.us/bwqp /stdsw.htm. For the Tahoe Regional Planning Agency (TRPA) water quality standards, see the following website: http://www.trpa.org/Documents.htm and select "Environmental Threshold Carrying Capacities."

The data results from the first 4 years of Snapshot Day were consistent in that all years were at or below average snowpack conditions. The 2005 sampling occurred at or near the peak runoff in most watersheds as seen in Figure 2, as did 2006. This generally meant lower conductivity measurements from dilution, but high turbidity from increased sediment movement. Higher flows can contribute to increased erosion, higher loading of sediment into the streams, and ultimately increased levels of phosphorous that is attached to the sediment.

The majority of sites had nitrate and phosphorous within the TRPA surface discharge standards (total nitrogen of no more than 500 µg/L and total phosphorous of no more than 100 µg/L for surface water runoff which directly enters Lake Tahoe). However, there were a few notable outliers as discussed above.

The following sampling sites were noteworthy for having poor readings in one or more water quality parameters:

- In the Middle Truckee watershed, **Union Valley Creek** (from Glenshire) had high total nitrogen (463 µg/L). There is no standard for Union Valley Creek, however the standard for the Truckee River above and below the mouth of Union Valley creek is 400 µg/L at both locations. Due to dilution, it is unlikely that the input of a small tributary such as Union Valley Creek would cause the mainstem Truckee to exceed its objective. However, this high concentration is reason for concern. Additionally, the total Phosphorus reading was 67 µg/L – the standard for the Truckee River above and below the mouth of Union Valley Creek is 50 µg/L – again with dilution it is unlikely that the phosphorus concentration in the Truckee would exceed its objective. Turbidity was fairly high, 18.7 NTU, and coliform levels were the highest recorded in the Middle Truckee River watershed (26 CFU). While none of these measurements are reason on their own to be concerned about water quality in this creek, the fact that Union Valley Creek shows some impairment in several constituents is of concern. This creek has measured high in some parameters in most years (see 2001-2006 data summary section below).

- **South Lake Tahoe at Bijou Creek** had an extremely high coliform count. Follow up testing should be conducted at this site.

- **McFaul Creek** below Highway 50 had a high coliform count (160 CFU). Also, Nitrogen was relatively high at this site.

- **Bijou Creek** and **Bijou Park Drainage** continue to have elevated levels of most constituents, as seen in all Snapshot Day samples.

- **Slaughterhouse Creek** had high nutrient levels (and some level of coliform).

- **Tahoe City State Park** has had high nutrient concentrations in the past – this year, nutrient data were not collected from this location.

2001 – 2006 Data Summary

The Lake Tahoe-Truckee Snapshot Day has now completed six years of data collection. The data from all years and all sites are compiled in Appendix B. The data tables are broken out by region (Lake Tahoe, South Lake Tahoe, North Lake Tahoe, Middle Truckee River, Lower Truckee River). This is the first time that all Tahoe Truckee Snapshot Day data have been compiled in one location. Selected graphs of data can be found in Appendix C. In general, discussion of these data will be limited to sites that have indications of impaired water quality.

From examination of all six years of data, it can be seen that there are some trouble spots. On the other hand, the good news is that most sites show consistently good water quality. Also, many spots that show a problem in one year do not in other years. The sites that have shown problems in more than one year should be continued to be monitored, and if the problems are significant, regular monitoring of these sites should be instituted.

Over the course of the years, there have been several notable contributions made by Snapshot Day volunteers in terms of improving water quality. For example, Snapshot Day volunteers have helped to collect data that have been used to help develop the Lake Tahoe Total Maximum Daily Load (TMDL) by collecting water samples from all the mouths of Lake Tahoe tributaries. These samples were used for a **particle size analysis** by the University of California (see Particle Size Analysis for Snapshot Day – Lake Tahoe Basin, Rabidoux & Schladow, 2003, 2004). More information about the Lake Tahoe TMDL can be found on the LRWQCB website: http://www.swrcb.ca.gov/rwqcb6/TMDL/Tahoe/Tahoe_Index.htm.

Snapshot Day data have also been helpful in identifying problem spots for high **coliform** data. Most of the sites sampled over the years have had very low coliform counts. However, several sites have consistently registered coliform counts, and several have been extremely high. For example, **Hatchery Creek at Star Harbor** in 2001 registered 706 CFU/100ml. This led to repeated sampling by LRWQCB and a source was identified. Other locations that have consistently had coliform counts or have had notably high counts are most of the **Lower Truckee River sites, Burke Creek, McFaul Creek, South Zephyr Creek,**

Edgewood Creek, **Lake Forest Creek**, **Tahoe Creek Urban Basin**, **Union Valley Creek**, and **Lake Tahoe at Bijou Creek** (see Appendix B & C).

2001 – 2006 Data Summary – Lake Tahoe sites

The primary water quality problem that Snapshot Day has found in Lake Tahoe is with high **coliform** counts (see Appendix B). Near shore sites should continue to be monitored for coliform. High coliform counts are of particular concern in Lake Tahoe because the lake is a popular swimming and boating area.

2001 – 2006 Data Summary – South Lake Tahoe Streams

Only a few of the South Lake Tahoe tributaries have consistently shown water quality problems. However, one of the most problematic sites around Lake Tahoe is the Bijou Creek area in South Lake Tahoe.

Bijou Creek and Bijou Park Drainage consistently show impaired water quality in several different parameters. There are clearly nutrient loading issues in this region as ammonia and nitrate, soluble reactive phosphorus and total phosphorus have repeatedly registered in high concentrations (Appendix B & C). Additionally, conductivity is often extremely high at these locations. Bijou Creek has also shown elevated water temperature periodically over the years. From Snapshot Day Data and other monitoring, it has become clear that a pollution control plan for this area needs to be developed. An Environmental Improvement Project for each of the watersheds is scheduled to be completed in the next several years.

Heavenly Creek and **Heavenly Creek tributary**, located near Bijou Creek, have also shown elevated levels of soluble reactive phosphorus and total phosphorus. This area has been subjected to further monitoring and a sediment TMDL has been developed for Heavenly Creek by LRWQCB (see: http://www.waterboards.ca.gov/lahontan/BasinPlan/hv_tmdl_1002.pdf .)

Trout Creek commonly shows elevated levels of both soluble reactive phosphorus and high total phosphorus, probably evidence of increased erosion in this watershed. Restoration projects are taking place along Trout Creek aimed at reducing erosion, which should in turn help to reduce the phosphorus entering the water.

The **Tahoe Keys Marina** consistently reports high water temperatures. As this is a shallow area with limited mixing, it is expected that the water temperatures would be elevated.

2001 – 2006 Summary – North Lake Tahoe Streams

Several streams in the North Lake area have had elevated levels of some parameters in multiple years. Primarily the problems seem to be related to nutrients.

Lake Forest Creek has had some problems with elevated coliform levels as noted above, and consistently has had elevated levels of soluble reactive

phosphorus and total phosphorus (Appendices B & C). This area should be continued to be monitored for both nutrients and for coliform.

Slaughterhouse Creek has periodically had low dissolved oxygen concentrations. Additionally both soluble reactive phosphorus and total phosphorus levels have been high in multiple years (Appendices B & C). Again, this creek should be continued to be monitored.

Dollar Hill Creek has had low pH, and consistently elevated soluble reactive phosphorus and total phosphorus.

Bonpland Creek, Tahoe City State Park, and the **Tahoe Creek Urban Basin** have all shown elevated nutrient levels on multiple occasions. All have shown high nitrate and soluble reactive phosphorus, total phosphorus has also been high for the **Tahoe Creek Urban Basin**.

Snow Creek and **Hatchery Creek near Star Harbor** both have had elevated soluble reactive phosphorus and total phosphorus more than once.

Several other streams have shown elevated levels of a single parameter in multiple years. High nitrate levels have been found at **Quail Creek** and **Secret Harbor**. **Wood Creek, Rosewood Creek, Griff Creek,** and **Carnelian Canyon Creek** have had high soluble reactive phosphorus levels, **Barton Creek** has had high total phosphorus levels (Appendices B & C).

2001 – 2006 Summary – Middle Truckee River Streams

Most streams in the Middle Truckee River watershed consistently show relatively good water quality. There are a few notable exceptions.

Union Valley Creek (from Glenshire) consistently shows elevated nutrients – nitrate, soluble reactive phosphorus, and total phosphorus. This stream drains the Glenshire Pond which is a shallow eutrophic body of water in the subdivision of Glenshire. This stream should be continued to be monitored, as should the Truckee River downstream of the confluence with Union Valley Creek.

Squaw Creek has had consistently high nitrate levels. A sediment TMDL has been developed for this stream, but continued monitoring of other constituents such as nitrogen concentration should continue. The stream runs through a ski area, parking lot, and golf course, although the golf course is under very strict management for fertilizer application.

Martis Creek has shown slightly elevated soluble reactive phosphorus at both monitoring stations. Additionally, total phosphorus at the lower station has consistently been high. This sampling site is just above where Martis Creek enters Martis Lake. There have been concerns over nutrient levels in the lake, particularly phosphorus. A preliminary study of phosphorus in the Martis watershed was undertaken by the Truckee Tahoe Sanitation Agency, however it was determined that further study was necessary. Currently, a comprehensive water quality monitoring plan for Martis Valley is scheduled to be developed by Placer County. Nutrient monitoring should be incorporated into this plan.

Gray Creek has had some extremely high turbidity measurements. This stream is infamous for generating sediment. A watershed assessment will be completed for Gray Creek that will include a sediment source identification and restoration project recommendations. The document will be available on the TRWC website, www.truckeeriverwc.org, by the end of 2006. Additionally, a sediment TMDL is being developed for this watershed.

2001 – 2006 Summary - Lower Truckee River Streams

Several Lower Truckee River streams consistently have elevated nutrient levels, conductivity, or turbidity. Additionally, high coliform counts have not been uncommon at several sites. The Lower Truckee River drainage is geologically and hydrologically much different than the higher elevation sites. Most of the standards established by the State of Nevada for tributaries to the Truckee River are less stringent than those established for tributaries to Lake Tahoe.

Many of the Lower Truckee River sites have shown elevated levels of nutrients. **Chalk Creek**, **Dry Creek**, and **Thomas Creek** have all had high concentrations of nitrate, soluble reactive phosphorus, and total phosphorus. **Evans Creek** has recorded high nitrate, **Lewers Creek** has recorded both high nitrate and high total phosphorus, **White's Creek** has recorded high soluble reactive phosphorus, and **Roberts Creek** has had high total phosphorus levels.

Bull Run Creek, **Chalk Creek**, and **Dry Creek** have all shown very high levels of conductivity in multiple years (Appendix B).

Evans Creek, **Dry Creek**, and **White's Creek** have all recorded high levels of turbidity (Appendix B).

Conclusion

The Lake Tahoe Environmental Education Coalition, Tahoe Regional Planning Agency, Truckee River Watershed Council and Nevada Division of Environmental Protection store all of the data and photos electronically. The reports are also available on the TIIMS website (www.tiims.org) and the TRWC website (www.truckeeriverwc.org). A summary of the field and laboratory data is available in the Appendix to this report.

The results of this sixth year of Snapshot Day illustrate how successful engaging the public in active watershed stewardship can also provided much valuable data to the responsible agencies. Although this event has little established funding or permanent staff, the collaboration and support of many agencies and continued dedication of citizen volunteers makes the event happen. Many residents have committed to the sampling near their homes to insure high quality data is collected for the protection of the waters in our region. The successes of this type of event show how average homeowners and residents can provide invaluable data collection and have fun at the same time!

For more information about how to get involved with water quality monitoring activities contact the following agencies:

- *Lake Tahoe Basin* – Contact Rita Whitney, Tahoe Regional Planning Agency, (775) 588-4547, ext. 258

- *Fallen Leaf Lake* – Grant Adams, Fallen Leaf Lake Research, (530) 541-8535

- *Incline Village* – Contact Domi Fellers, Incline Village GID Waste Not/Incline Village Clean Water Team, (775) 831-8603

- *Middle Truckee River (Tahoe City to Nevada State Line)* – Contact Beth Christman, Truckee River Watershed Council, (530) 550-8760

- *Lower Truckee River (Nevada Stateline to Pyramid Lake)* – Contact Mary Kay Riedl, Nevada Division of Environmental Protection, (775) 687-9454

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Marine Research & Education, Inc.
Nevada Division of Environmental Protection
Nevada Division of State Lands
Nevada Tahoe Conservation District
Regional Water Planning Commission (RWPC)
Sierra Nevada College
Tahoe Regional Planning Agency
Tahoe Research Group
Tahoe Resource Conservation District
Truckee River Watershed Council
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USDA Forest Service
United States Geologic Survey
Washoe County
Waste Not, Incline Village General Improvement District

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Equipment:

California State Water Resource Control Board
Carson Valley Subconservancy District
Environmental Protection Agency
Lake Tahoe Community College
Lake Tahoe Environmental Education Coalition (LTEEC)
Nevada Division of Environmental Protection
Sierra Nevada College
Tahoe Regional Planning Agency
Truckee River Watershed Council
United States Geological Survey
University of California, Davis
University of Nevada, Reno
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Nevada State Health Laboratory
Truckee Meadows Water Reclamation Facility
United States Geologic Survey

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And all the volunteers that made it happen!

Appendices & Attachments

Attachments:

1. Lower Truckee River 2006 Report

Appendices:

A. 2006 Summary of Field and Lab Data

B. 2001-2006 Summary of Field and Lab Data

C. Selected Graphs of 2001-2006 Data

D. South Shore Sites

E. North Shore Sites

F. Middle Truckee River Sites

G. Lower Truckee River Sites

Note: Data collected as part of the Snapshot activities is available electronically. Contact Beth Christman, Truckee River Watershed Council, (530)550-8760.

Attachment 1

Lower Truckee River 2006 Report

Introduction

The sixth annual Snapshot Day 2006 was held on May 20, 2006 in the Lake Tahoe and Truckee River watersheds. This report is exclusively for the Nevada Truckee River segment and is expected to be appended to the overall report for the entire watershed. Approximately 85 volunteers, working closely with many water quality management agencies, participated in gathering water quality information in the form of visual assessments, photos, and water quality data at 18 locations. (Table 1)

Table 1

Location	Station_ID	Approximate Elevations (Feet above Sea Level)	Latitude 39 N Minutes	Longitude 119 W Minutes
Alum Creek	LTR-ALU	4564	30'40"	51'19"
Chalk Creek	LTR-CHA	4590	30'40"	52'08"
Davis Creek	LTR-DAV	5162	18'15"	49'56"
Dry Creek	LTR-DRY	4459	27'46"	46'47"
Evans Creek	LTR-EVA	4445	28'09"	46'40"
Galena Creek	LTR-GAL	6362	21'13"	51'27"
Hunter Creek	LTR-HUN	4846	29'49"	53'33"
North Truckee Drain	LTR-NTD	4403	33'07"	43'11"
Pyramid Lake	LTR-PYRL	3810	51'54"	26'44"
Roberts Creek	LTR-ROB	4763	30'27"	56'37"
Steamboat Creek	LTR-STE	4603	22'40"	44'33"
Thomas Creek	LTR-THO	4468	26'26"	45'27"
Truckee River above Nixon Bridge	LTR-NIXB	3884	50'50"	23'36"
Truckee River At Idlewild Park	LTR-IDL	4413	31'22"	50'04"
Truckee River At McCarran Ranch	LTR-MCR	4295	32'56"	33'58"
Truckee River At Rock Park	LTR-ROC	4069	31'09"	45'45"
Truckee River Near Wadsworth Bridge	LTR-WADS	4050	37'35"	17'16"
White's Creek	LTR-WHI	4514	25'25"	43'21"

What is Snapshot Day?

Snapshot Day is a one-day, volunteer-based event designed to collect watershed information during one point in time. Volunteer "team leaders" are trained, and

these leaders accompany teams of volunteers to various pre-determined sites (Table 1). The purpose of this effort is two-fold: 1) to promote environmental education and stewardship, and 2) to collect watershed health information. While there is a great deal of high quality agency and university-sponsored monitoring taking place in the region, there is still insufficient information to adequately assess the status of the Truckee River and Lake Tahoe Basin watersheds. With proper training and quality assurance, community volunteers can help fill this void by providing valuable information for watershed management and pollution prevention.

This collaborative effort for the Nevada segment of the Truckee River Watershed was principally planned and coordinated by the Nevada Division of Environmental Protection (NDEP). Other organizations involved in planning and operating this event included:

City of Reno
Pyramid Lake Paiute Tribe
University of Nevada Cooperative Extension (UNCE)
Truckee River Yacht Club

Funding was provided through the following public sources:

- Regional Water Planning Commission (RWPC)
- Truckee Meadows Water Authority through the Truckee River Fund
- Cities of Reno and Sparks and Washoe County through the Truckee Meadows Storm Water Permit Coordinating Committee

Additional funding was provided by private donations by the following businesses:

Eco:Logic
Quad Knopf
Stantec
Wallace Kuhl & Associates
Odyssey Engineering Incorporated
Summit Engineering Corporation
Farr West Engineering

Metals and bacteriological analyses were completed on the samples collected on the Nevada Truckee River watershed compliments of the Nevada State Health Laboratory.

The Snapshot Day included monitoring throughout the Lake Tahoe basin and the Truckee River watershed on the California side as well. Collaboration to make this an entire watershed event included the following entities:

- Tahoe Resource Conservation District
- Tahoe Regional Planning Agency
- Sierra Nevada College
- UC Davis Tahoe Research Group
- Lake Tahoe Environmental Education Coalition
- Lahonton Regional Water Quality Control Board
- Truckee River Watershed Council Lake Tahoe Community College
- Nevada Tahoe Conservation District

Coffee and pastries for the volunteers the day of the event were provided by ***Starbucks Coffee***. Sandwiches, fruit, chips and bottled water for lunch was prepared by ***Albertson's Grocery Store*** provided at a discounted price.

Volunteer Monitoring

The mission of the volunteer monitoring on Nevada Truckee River segment is to establish background and an annual record on the certain environmental parameters for specific reaches within the watershed.

Nevada Division of Environmental Protection and its partners realize that hands-on experience will inform and engage the community in effective watershed stewardship. The goals of the volunteer monitoring are to:

- Build awareness of water quality issues, water supplies and pollution prevention
- Screen for water quality problems, including the identification of sources of pollution and detection of illegal activities (i.e., chemical spills, filling of wetlands, diversions, illicit discharges, destruction of stream buffer zones, non-compliance with ordinances or regulations in place to protect natural resources, etc.)
- Assess the status and trend of biologic and ecologic conditions for a given reach within the watershed
- Provide water quality data that may be used in long term trend analyses
- Provide baseline water quality data for un-monitored waters
- Provide data for evaluating the effectiveness of restoration activities (also called best management practices, or BMPs) and various other pollution control strategies

Nineteen team leaders were professionals recruited from agencies and private practice. There was a wide spectrum of volunteers. Three high schools participated: Bishop Manogue Catholic High School, McQueen High School, and Galena High School accounting for 32 of the participants.

The participant evaluations of the event are located at the back of the report in Appendix D.

It is important to note that citizen monitoring can be used in an advisory manner. It cannot be relied upon for regulatory action. It is intended to supplement existing agency monitoring efforts; all information is provided to the regulatory and resource management agencies, whose responsibility it is to protect water quality.

Methods

Citizen monitoring "team leaders" were provided training during the month prior to Snapshot Day (May, 2006). Team leader trainings covered descriptions and protocols for visual observations, photo-documentation, water quality field measurements (temperature, pH, conductivity, dissolved oxygen), and water sampling (grab samples sent into the laboratory for subsequent analysis of metals and bacteriological quality). Team leader training for the Nevada Truckee River watershed was taught by Mary Kay Riedl of the Nevada Division of Environmental Protection and Melissa Randazzo of the City of Reno at the Washoe County Bartley Ranch Park.

Visual observations and photo-documentation were performed according to the procedures provided by the Snapshot Day protocol. The standardized observation form, the *California Stream and Shore Walk Visual Assessment Form* developed by California State Water Quality Control Board (SWRCB) Clean Water Team, was slightly revised to better apply to the region. At least three photos were taken at each sampling site (bed conditions, view across stream and view upstream from the starting point). All stream-walks were initiated from a downstream position, traveling upstream.

The Visual Assessments of the sites sampled are located at the back of the report in Appendix B.

A variety of instruments and kits were used on Snapshot Day by the volunteers. The majority of the monitoring teams were assigned armored Envirosafe thermometers (alcohol filled, 0.5° C resolution) or hand-held digital thermometers (0.1° C resolution), non-bleeding Whatman pH indicator strips (0.5 pH unit resolution), hand-held Oakton TDS Tester Conductivity meters (10 µS/cm resolution), hand-held Oakton Low+ Conductivity meters (1 µS/cm resolution) and Chemet dissolved oxygen kits (colorimetric, indigo carmine dye reaction, 1 mg/L resolution below 6 mg/L and 2 mg/L resolution above 6 mg/L). The Chemet dissolved oxygen kits were purchased by the Cities of Reno and Sparks and Washoe County through the Storm Water Permit Coordinating Committee. Turbidity meters and Hach meters for nutrients used at the staging locations and other instruments/kits were provided by other participating agencies. All of the instruments and kits were calibrated and tested/standardized at a quality control session held one day prior to the event.

All observations, photos, field measurements and samples were taken between 9:00 a.m. and 12:00 noon on May 20, 2006. Turbidity, nitrogen and phosphorus samples were run from the grab samples on the afternoon of Snapshot Day at the Bartley Ranch Staging Area.

Coliform samples were collected in sterile sample bottles provided by the Nevada State Health Laboratory. Samples were kept chilled with ice or blue ice in coolers from the point of collection until arrival at the lab for analysis. Coliform samples were transported to the State Health Laboratory within 4 hours of collection. Coliform samples were analyzed by the Most Probable Number (MPN) method and provided total, fecal and E.Coli results.

Site Locations

Volunteers gathered data at 18 locations (see Table 1) within the Nevada segment of the Truckee River watersheds. Each location has been identified on Google Earth and/or MapQuest which illustrates the general location, elevation and land use within vicinity of the reach considered. (see maps in appendix A). This included tributaries within major sub-watersheds.

Results

All of the reported water quality data is included in Appendix C. The first page of Snapshot Day 2006 Water Quality Data reflects the results of the volunteer monitoring and bacteriological results provided by the State Health Laboratory. The second page of Snapshot Day 2006 Water Quality Data provides the results of metals as analyzed by the State Health Lab. Some discussion and charts of the volunteer monitoring is included in this report.

Water temperature on the Nevada Truckee River Watershed ranged from 3 to 17 ° Celsius (C). See Figure 1 for a chart illustrating the Snapshot Day 2006 Water Temperatures. The highest measurement this year was measured at Dry Creek. The Dry Creek reach is in an urbanized area where an attempt has been made to restore the creek with a low flow channel and a vegetated flood plain; but has no trees. The lowest temperatures were measured in Galena Creek, the highest site at about 6300 feet in elevation with lots of shade from pine trees and vegetation. Generally, cooler water temperatures are considered better habitat for aquatic life in mountain streams and lakes, it contains more dissolved oxygen, an essential for fish and invertebrates. While higher temperatures result from low flow (shallow) conditions, and/or a lack of canopy (tree) cover along stream banks, which acts to shade and thus prevent solar heating of the water. Higher temperatures promote solubility of nutrients.

Dissolved oxygen measurements ranged between 4 and 12 mg/L. See Figure 2 for a chart illustrating the Snapshot Day 2006 Dissolved Oxygen. Cold, clean water usually has levels of dissolved oxygen averaging above 6.0 mg/L. Levels below 5 mg/L are considered dangerous for (cold water) aquatic life. While water quality objectives for dissolved oxygen will vary from region to region, waters that support coldwater fishes usually require that dissolved oxygen concentration shall not fall below 6 to 8 mg/L (while for waters that support warm water fishes, the objective requires that the dissolved oxygen concentration shall not fall below

5 to 6 mg/L). Alum Creek and Steamboat Creek were measured at 4 mg/l or less.

Figure 1 - Snapshot Day 2006: Nevada Truckee River Watershed
Water Temperature for Sampled Sites

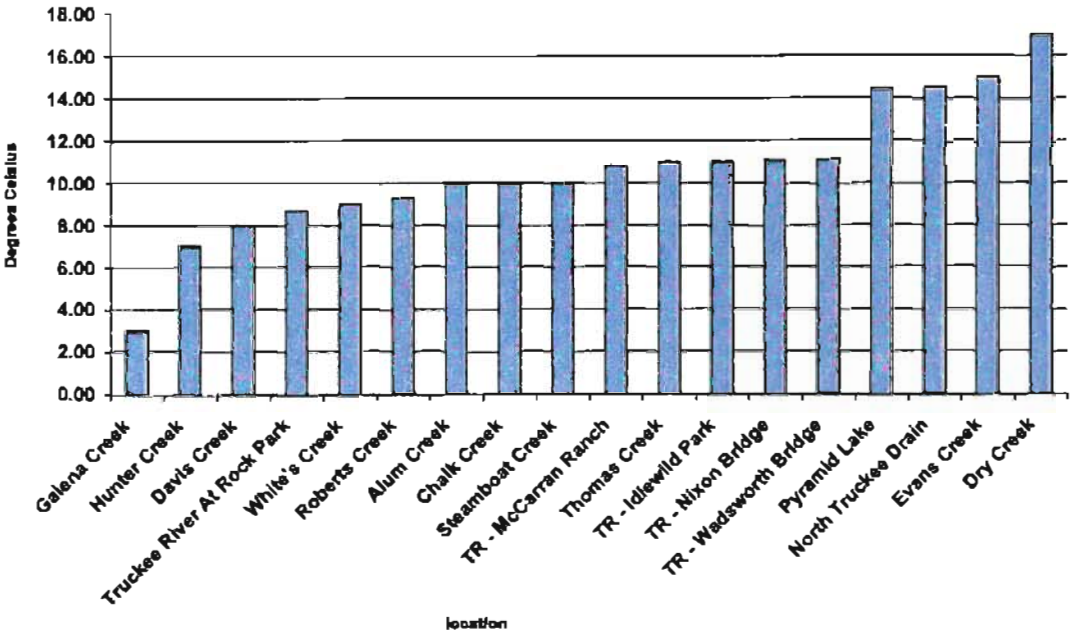
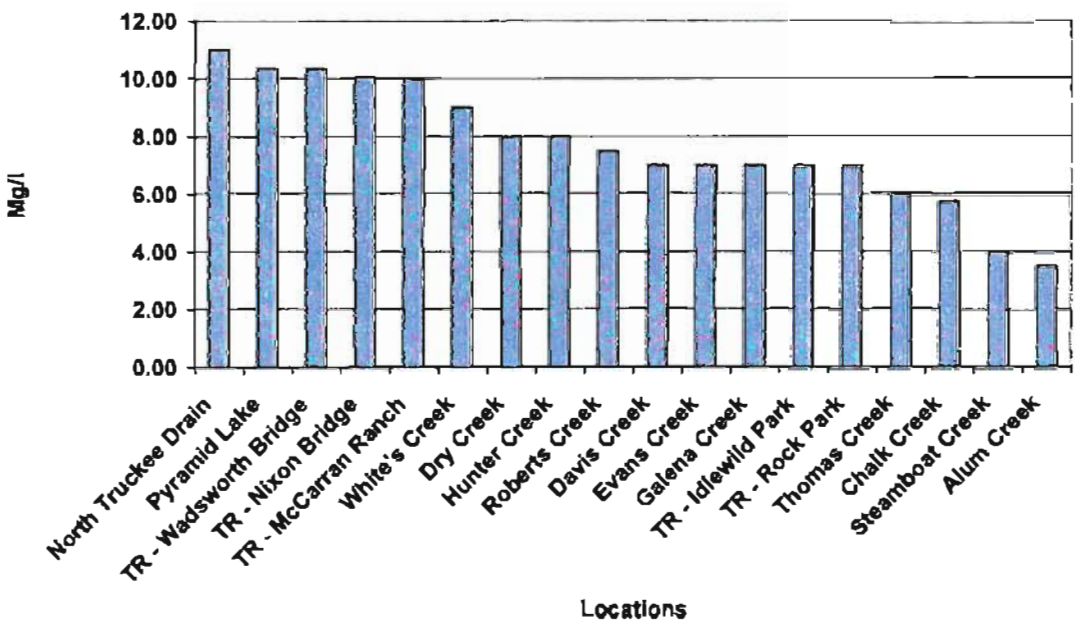
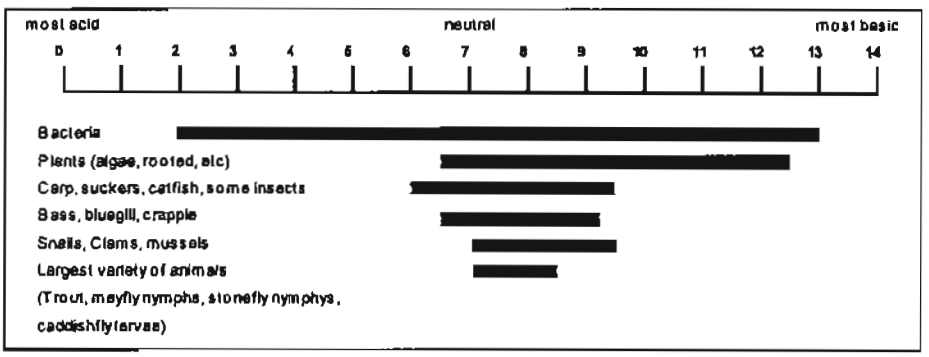


Figure 2 - Snapshot Day 2006: Nevada Truckee River Watershed
Dissolved Oxygen (mg/l) for Sampled Sites



pH values were measured with pH strips. See Figure 3 for a chart illustrating the Snapshot Day pH. A majority of sites were reported within the range of 5 to 9. However, a pH as low as 5 is quite acidic and would be detrimental and not expected. Since 6 out of the 18 locations recorded at a pH of 5, it is suspected that the pH strips may have been too old and producing poor results. In fresh water, pH in the range of 6.5 to 8.5 is acceptable for most organisms. The range of pH tolerated by organisms varies and is illustrated below.



pH ranges that support aquatic life.

(from the *SWRCB Clean Water Team pH Fact Sheet)*

Conductivity measurements ranged from 8 to 3196 µS/cm (micro Siemens per centimeter, the units used for conductivity measurements in fresh water). See Figure 4 for a chart illustrating the Snapshot Day 2006 Conductivity. Conductivity is used as an indicator of dissolved solids (e.g., minerals or salts), with higher levels associated with degraded water quality. Conductivity will vary with water source inputs from natural sources such as groundwater seepage, springs and/or geothermal activity. Anthropogenic sources that may affect conductivity include drainage from agricultural fields, wastewater discharge, or inputs stemming from deicing materials on the roadways. The acceptable ranges of water conductivity are illustrated below:

Acceptable Ranges for Water Conductivity

Water Type	**Conductivity** µS/cm (micro Siemens per centimeter)
Distilled Water	0.5 - 3.0
Melted snow	2 - 42
Potable water in U.S.	30 - 1500
Irrigation Supply Water	< 750

(from the *SWRCB Clean Water Team pH Fact Sheet)*

The numeric value of **total dissolved solids** (TDS) is roughly 65% of the numeric value of conductivity measurements; however the direct relation is site specific. Analysis for TDS

was not performed on any of the grab samples collected.

Figure 3 - Snapshot Day 2006: NV Truckee River Watershed pH Values for Sampled Sites

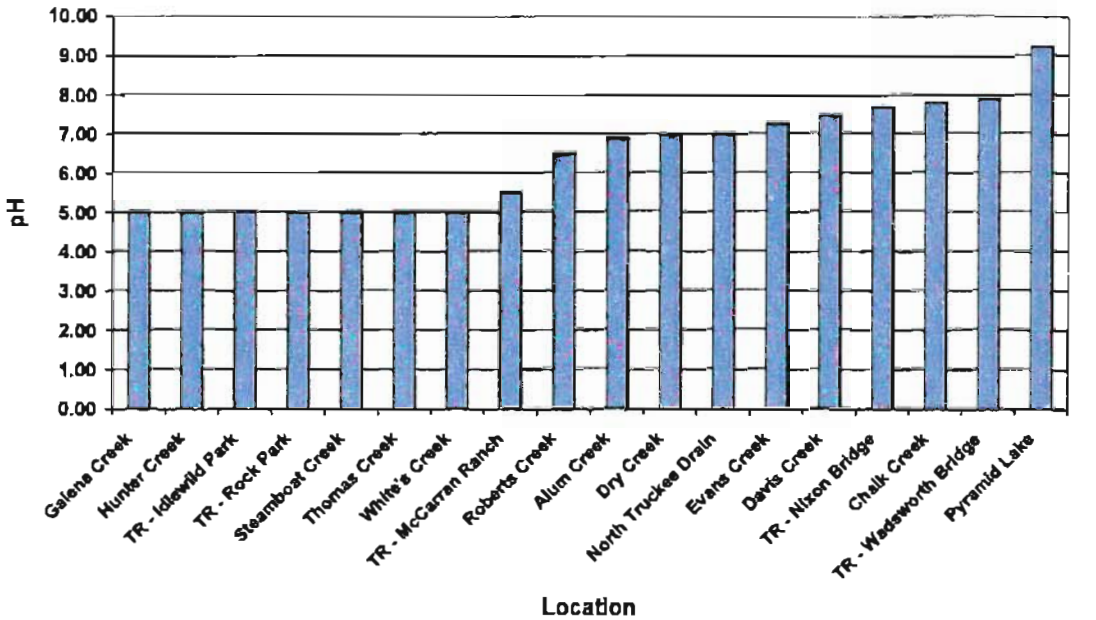
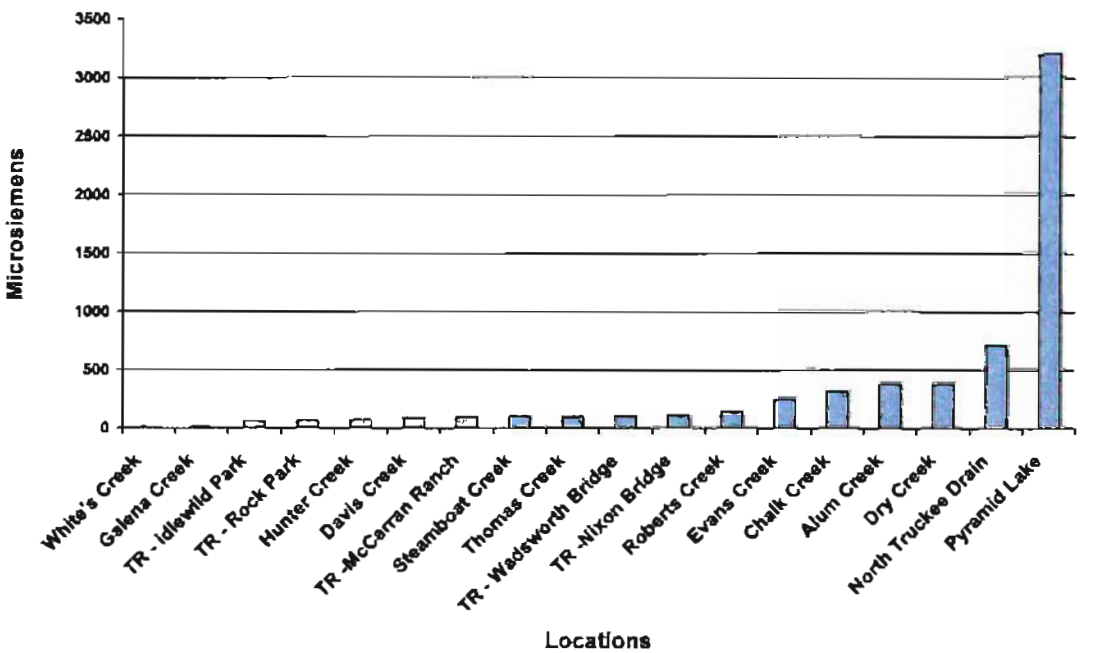


Figure 4 - Snapshot Day 2006: Nevada Truckee River Watershed Conductivity for Sampled Sites



Turbidity is a measure of the amount of suspended particles in the water. See Figure 5 for a chart illustrating the Snapshot Day 2006 Turbidity. Algae,

suspended sediment, organic matter and some pollutants, can cloud the water making it more turbid. Suspended particles diffuse sunlight and absorb heat, which can increase temperature and reduce light available for algal photosynthesis. If the turbidity is caused by suspended sediment, it can be an indicator of erosion, either natural or man-made. High sediment loads can clog the gills of fish, foul gravel beds and smother fish eggs and benthic insects. The sediment can also carry pathogens, pollutants and nutrients.

All of the locations were experiencing high flows as a result of spring runoff. These higher flows resulted in higher turbidity at most locations.

Coliform bacteria data was developed for the 18 sites in the Nevada Truckee River watersheds. See Figure 6 & 7 for charts illustrating the Snapshot Day 2006 results for total, fecal and E.Coliform bacteria counts. Total coliform bacteria are prevalent in the environment and serves principally as an indicator organism of the potential of contamination. Fecal and E.Coli are a group of bacteria that are mostly found in the feces of warm-blooded animals, including humans, pets, livestock, beavers, and birds. About half of the locations had total coliform bacteria of less than 2000 cfu/100 ml. Most of these had very minimal counts for fecal or E.Coli bacteria. The other locations had results of Total Coliform counts of greater than 2000 cfu/100 ml.

Nutrients

The following nutrients were analyzed on some of the samples using a Hach analyzer at the staging area. The majority were found to be less than detection. The nutrient results can be reviewed in Appendix C Water Quality Data (non-metal).

Nitrogen is required by all organisms for the basic processes of life to make proteins, to grow, and to reproduce. Nitrogen is very common and found in many forms in the environment. Inorganic forms include nitrate, nitrite, ammonia, and nitrogen gas. Organic nitrogen is found in the cells of all living things and is a component of proteins, peptides, and amino acids. Nitrogen is a nutrient that stimulates the growth of algae in streams and lakes. Algae include benthic forms, attached to the rocks and sediment of the streambeds (as observed by the monitors), as well as phytoplankton. Phytoplanktons are microscopic single cell algae that drift in the water and that can cause the water to have a green color. Benthic algae and phytoplankton are essential components to the ecosystem, but in relatively large concentrations, these organisms are known to reduce water clarity, or reduce oxygen levels during the evening (they consume oxygen at night).

Figure 5 - Snapshot Day 2006: Nevada Truckee Watershed
Turbidity (NTU) for Sampled Sites

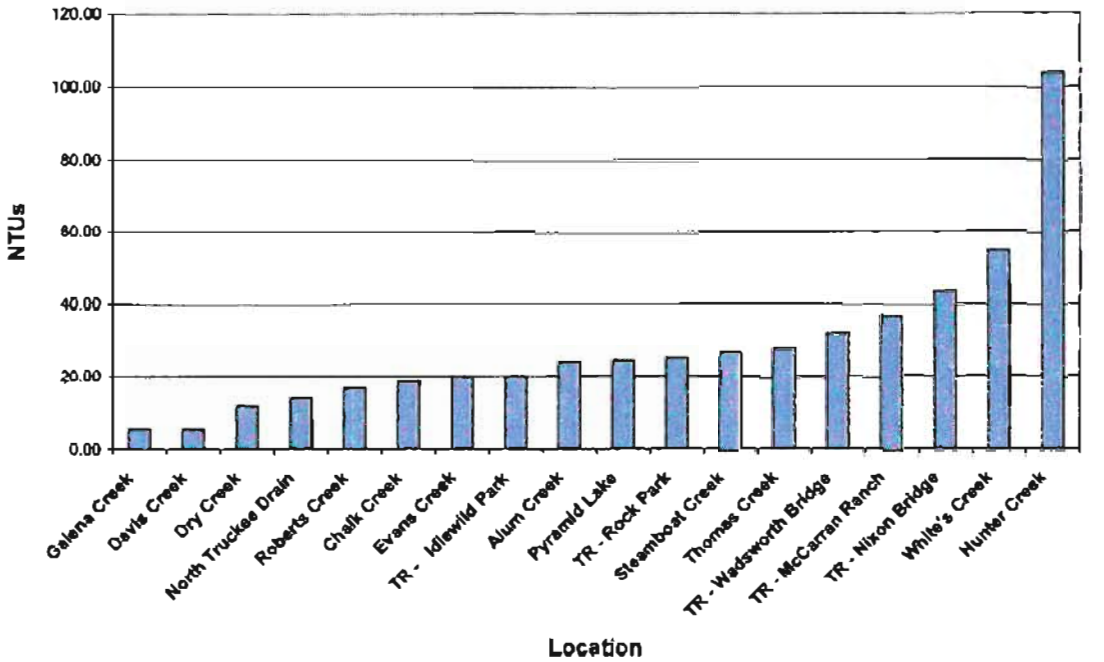


Figure 6 - Snapshot Day 2006: NV Truckee River Watershed Total, Fecal and E. Coliform Counts at or Below 2005 cfu

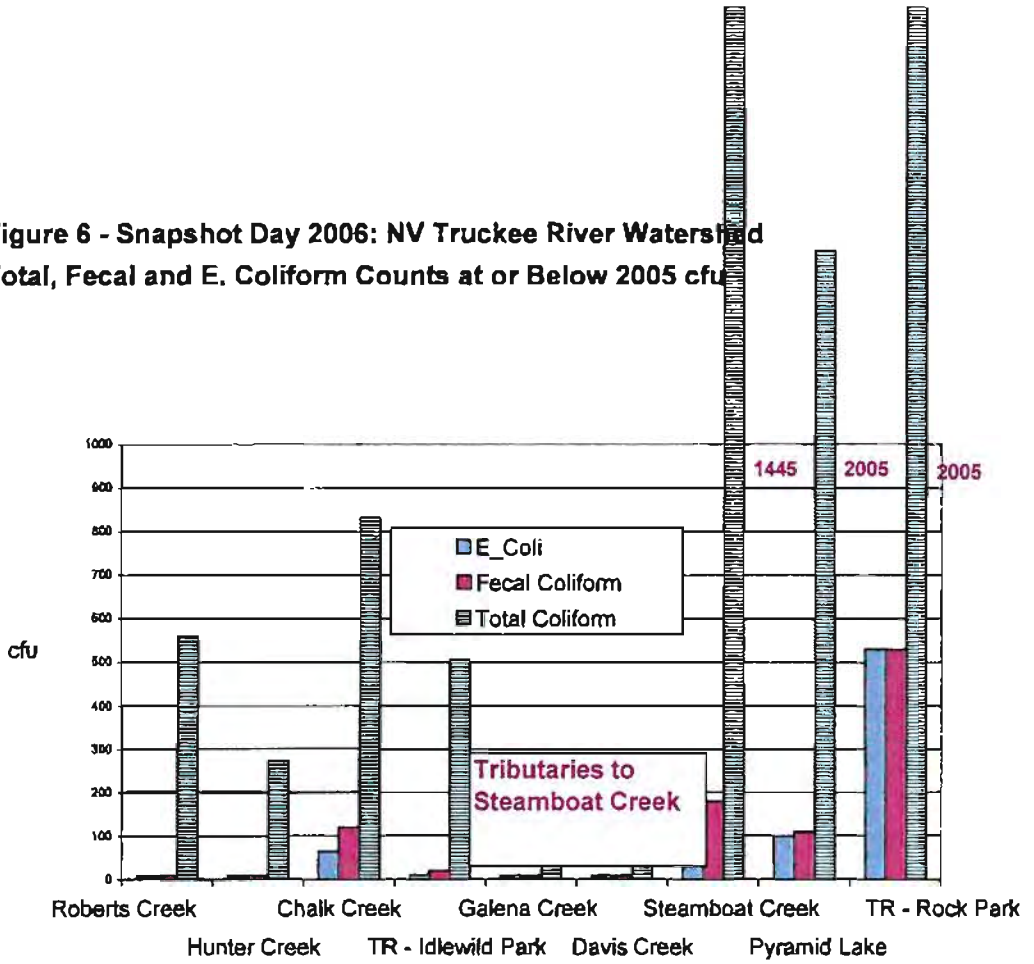
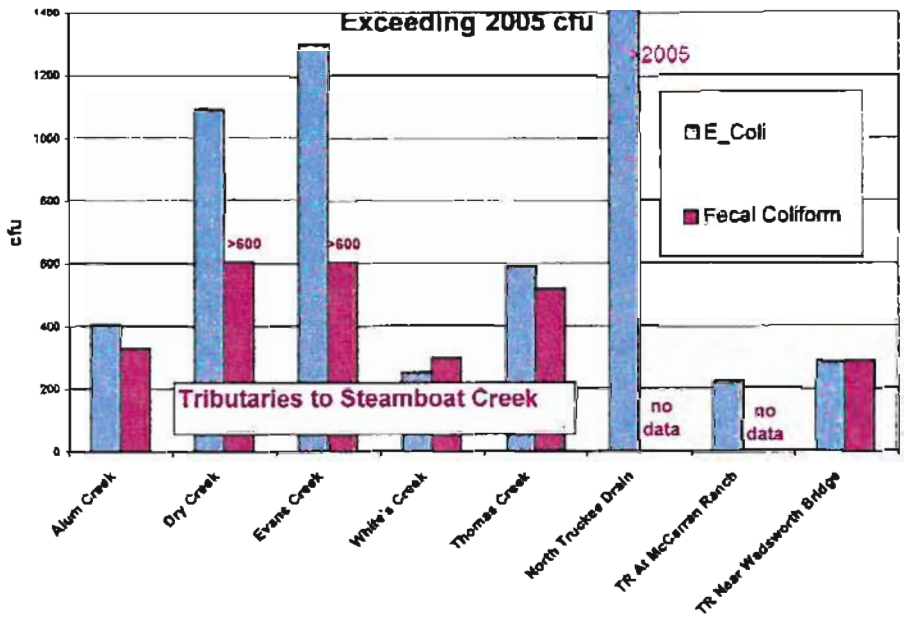


Figure 7 - Snapshot Day 2006: NV Truckee River Watershed Fecal and E. Coliform Bacteria Counts With Total Coliform



Ammonia is a reduced, toxic form of nitrogen and is usually associated with the decomposition of organic matter and wastes. Total ammonia consists of the un-ionized (NH_3) plus the ionized (NH_4^+) forms. Ionized ammonia is relatively nontoxic while un-ionized ammonia is toxic to fish and aquatic invertebrates, even in low concentrations.

Phosphorous is another nutrient required algal growth. Phosphorus pollution has been identified as a serious problem contributing to the degradation of water quality in Lake Tahoe and the Truckee River. Sediment entering streams and the lake from human caused erosion of soil along roads, or from residential or commercial properties, is a common source of phosphorus. This is why it is important to implement BMPs on your property; source control is the most effective means to control erosion and runoff.

Nitrogen and phosphorus determine the maximum amount of algae that can grow in virtually every water body. Excess nutrients lead to excess algae, odors, and discolored waters, loss of clarity, and nighttime oxygen depletion, which in turn can cause fish kills in extreme cases.

Metals

The Nevada State Health Laboratory complimented analyses on the grab samples collected at each location for the following:

Total Metals: Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium, Copper, Fluoride, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Zinc.

Dissolved Metals: Arsenic, Cadmium, Chromium, Copper, Mercury, Nickel, Selenium, Silver, Zinc.

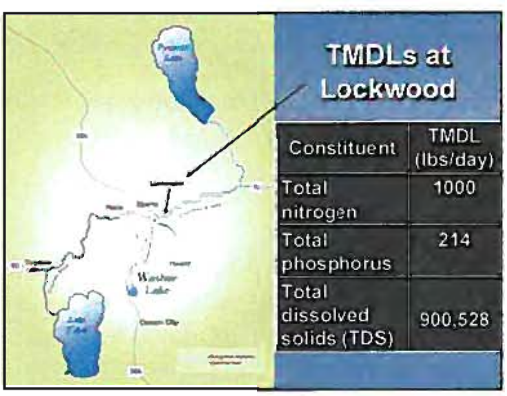
Dissolved Cations: Calcium, Magnesium, Sodium.

Metals were not detected in the majority of locations. However, of note were elevated levels of 3700 micrograms per liter of Boron and 600 micrograms per liter of Fluoride in the sample from Pyramid Lake.

Water Quality Regulations

Under section 303(d) of the 1972 Clean Water Act, states are required to develop lists of impaired waters. Impaired waters are those waters that do not meet water quality standards set for them by the states, territories, or authorized tribes, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish priority rankings for waters on 303(d) lists and develop total maximum daily loads (TMDL) for these waters.

Total Maximum Daily Load (TMDL) is the total allowable amount of a single pollutant from all contributing point and nonpoint sources. The point source portion of the TMDL is called the Wasteload Allocation. The nonpoint source portion of the TMDL is called the Load Allocation. The Load Allocation also includes background sources of the pollutant. The TMDLs for nitrogen, phosphorus and TDS at Lockwood are illustrated below:



(University of Nevada Cooperative Extension – NEMO Nevada)

Recommendations

There was more momentum for the implementation of Snapshot Day for the Nevada Truckee River Watershed than in previous years. There is greater interest and support for watershed protection by local agencies resulting in funding opportunities and participation by local professionals. It is recommended the planners of this event continue to seek out volunteer participation from the local high schools and neighborhoods in proximity to the creeks.

The volunteers measured electrical conductivity (EC) at each of the sites. While it can be generally be assumed that the Total Dissolved Solids (TDS) is approximately 65% of the numeric value of conductivity measurements, the direct relation is site specific. It is recommended that a certified lab perform Total Dissolved Solids (TDS) on the grab sample collected by the volunteers.

Conclusion

It is important to remember that the measurements made on Snapshot Day represent a single point in time and do not necessarily represent average conditions. Careful evaluation of the data is warranted.

The Nevada Division of Environmental Protection will be responsible for storing all of the data and photos electronically. A summary of the field and laboratory data is available in the Appendix to this report.

The results of this sixth year of Snapshot Day illustrate how successful engaging the public in active watershed stewardship can also provided much valuable data to the responsible agencies. Although this event has little established funding or permanent staff, the collaboration and support of many agencies and continued dedication of citizen volunteers makes the event happen. Many residents have committed to the sampling near their homes to insure high quality data is collected for the protection of the waters in our region. The successes of this type of event show how average homeowners and residents can provide invaluable data collection and have fun at the same time!

For more information about how to get involved with water quality monitoring activities contact the following agencies:

- *Lower Truckee River (Nevada Stateline to Pyramid Lake)* – Contact Mary Kay Riedl, Nevada Division of Environmental Protection, (775) 687-9454

Bibliography

Ambient Water Quality Criteria Recommendations: Rivers and Streams in Nutrient Ecoregion II, U.S. Environmental Protection Agency, December 2000

California State Water Resources Control Board website: http://www.swrcb.ca.gov/

EPA's Draft Volunteer Stream Monitoring: A Methods Manual, U.S. Environmental Protection Agency

Nevada Administrative Code (NAC), Chapter 445A, Nevada Division of Environmental Protection, 1995 Revision

University of Nevada Cooperative Extension, Non-Point Source Education for Municipal Officials

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Nevada Truckee River Watershed Snapshot Day Planning Committee:
Melissa Randazzo (City of Reno)
Mary Kay Riedl (Nevada Division of Environmental Protection)
Fannie Ely, Pyramid Lake Tribe
Terri Svetich, City of Reno
Sue Donaldson, University of Nevada Cooperative Extention

Equipment:
California State Water Resource Control Board
Carson Valley Subconservancy District
Environmental Protection Agency
Lake Tahoe Community College
Lake Tahoe Environmental Education Coalition (LTEEC)
Nevada Division of Environmental Protection
Sierra Nevada College
Tahoe Regional Planning Agency
Truckee River Watershed Council
United States Geological Survey
University of California, Davis
University of Nevada, Reno
USDA Forest Service

Laboratory Analysis (Metals and Bacteria):
Nevada State Health Laboratory

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2006 Snapshot Day Data for Lower Truckee River

Station ID	Stream Name	Air Temp °C	Water Temp °C	pH	Dissolved Oxygen mg/L	Conductivity µS	Turbidity NTU	E Coli cfu/100 ml	Fecal Coliform cfu/100 ml	Total Coliform cfu/100 ml	Chloride mg/L	TSS mg/L	Ammonia mg/L	Nitrate N mg/L	Nitrite N mg/L	Total Kjeldahl N mg/L	Total P mg/L	Ortho P mg/L
LTR-ALU	Alum Creek	17	10.00	8.90	3.50	380	24.00	406	330	> 2005		21						
LTR-CHA	Chalk Creek		10.00	7.80	5.75	320	18.70	64	120	831		43					0.09	
LTR-DAV	Davis Creek	16	8.00	7.50	7.00	90	5.59	< 10	< 10	288		15					0.02	
LTR-DRY	Dry Creek		17.00	7.00	8.00	380	12.00	1091	> 600	> 2005		26					0.22	
LTR-EVA	Evans Creek		15.00	7.25	7.00	250	20.00	1298	> 600	> 2005		28					0.19	
LTR-GAL	Galena Creek		3.00	6.00	7.00	10	5.58	< 10	< 10	42		27					0.07	
LTR-HUN	Hunter Creek		7.00	5.00	8.00	70	104.00	< 10	< 10	271		205					0.19	
LTR-IDL	Truckee River At Idlewild Park		11.00	5.00	7.00	60	20.00	10	20	504	< 5	65	< 0.1	< 0.1	< 0.01	0.2		< 0.01
LTR-MCR	Truckee River At McCarran Ranch		10.80	5.50	10.00	98	36.90	222		> 2005	< 5	65	< 0.1	< 0.1	< 0.01	0.3		0.02
LTR-NIXB	Truckee River above Nixon Bridge		11.09	7.71	10.06	110	43.80	124	170	> 2005	7	113	< 0.1	< 0.1	< 0.01	0.4		0.03
LTR-NTD	North Truckee Drain		14.50	7.00	11.00	714	14.20	> 2005		> 2005		< 10						
LTR-PYRL	Pyramid Lake		14.47	9.22	10.36	3196	24.40	99	110	1445	890	20	< 0.1	< 0.1	< 0.01	0.4		0.06
LTR-ROB	Roberts Creek		9.30	6.50	7.50	144	16.90	< 10	< 10	560		33						
LTR-ROC	Truckee River At Rock Park		8.70	5.00	7.00	65	25.20	531	530	2005	< 5	71	< 0.1	< 0.1	< 0.01	0.2		0.01
LTR-STE	Steamboat Creek	20	10.00	5.00	4.00	100	26.60	150	180	2005		55					0.12	
LTR-THO	Thomas Creek		11.00	5.00	6.00	100	27.90	591	520	> 2005		57					0.14	
LTR-WADS	Truckee River Near Wadsworth Bridge		11.14	7.93	10.34	102	32.10	288	290	> 2005	8	78	< 0.1	< 0.1	< 0.01	0.4		0.03
LTR-WHI	White's Creek		9.00	6.00	9.00	8	55.40	254	300	> 2005		193					0.17	

2006 Snapshot Day Data for Lower Truckee River

		Total Metals µg/L																Dissolved Metals µg/L								Dissolved Cations mg/L		
Station ID	Stream Name	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Copper	Fluoride	Iron	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Thallium	Zinc	Arsenic	Cadmium	Chromium	Copper	Mercury	Nickel	Selenium	Silver	Zinc	Calcium	Magnesium	Sodium
LTR-ALU	Alum Creek	< 5	< 3	40	< 2	< 100	< 1	< 2	3	< 100	1400	< 1	270	< 0.2	< 10	< 5	< 2	< 1	18	< 3	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	13	30	11	15
LTR-CHA	Chalk Creek	< 5	< 3	40	< 2	< 100	< 1	< 2	2	< 100	1300	< 1	70	< 0.2	< 10	< 5	< 2	< 1	< 10	< 3	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	< 10	24	14	16
LTR-DAV	Davis Creek	< 5	< 3	< 20	< 2	< 100	< 1	< 2	< 2	< 100	810	< 1	< 20	< 0.2	< 10	< 6	< 2	< 1	< 10	< 3	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	< 10	10	< 5	< 5
LTR-DRY	Dry Creek	< 5	4	120	< 2	< 100	< 1	< 2	2	< 100	660	< 1	80	< 0.2	< 10	< 5	< 2	< 1	< 10	4	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	12	29	16	17
LTR-EVA	Evans Creek	< 5	3	80	< 2	< 100	< 1	< 2	3	< 100	1200	1	60	< 0.2	< 10	< 5	< 2	< 1	12	< 3	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	< 10	23	6	12
LTR-GAL	Galena Creek	< 5	< 3	20	< 2	< 100	< 1	< 2	< 2	< 100	800	< 1	30	< 0.2	< 10	< 5	2	< 1	< 10	< 3	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	< 10	6	< 5	< 5
LTR-HUN	Hunter Creek	< 5	< 3	40	< 2	< 100	< 1	< 2	2	< 100	560	< 1	160	< 0.2	< 10	< 5	< 2	< 1	12	< 3	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	< 10	8	< 5	< 5
LTR-IDL	Truckee River At Idlewild Park	< 5	< 3	30	< 2	< 100	< 1	< 2	< 2	< 100	980	< 1	40	< 0.2	< 10	< 5	< 2	< 1	< 10	< 3	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	< 10	6	< 5	< 5
LTR-MCR	Truckee River At McCarran Ranch	< 5	5	40	< 2	< 100	< 1	< 2	< 2	< 100	1600	1	70	< 0.2	< 10	< 5	< 2	< 1	11	4	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	11	7	< 5	6
LTR-NIXB	Truckee River above Nixon Bridge	< 5	7	40	< 2	< 100	< 1	< 2	3	< 100	2400	1	90	< 0.2	< 10	< 5	< 2	< 1	10	6	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	13	9	< 5	8
LTR-NTD	North Truckee Drain	< 5	12	40	< 2	100	< 1	< 2	3	100	820	< 1	50	< 0.2	< 10	< 5	< 2	< 1	10	12	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	12	28	11	69
LTR-PYRL	Pyramid Lake	< 5	43	40	< 2	3700	< 1	< 2	< 2	600	1100	< 1	40	< 0.2	20	< 5	5	< 1	< 10	40	< 1	< 2	< 2	< 0.2	< 5	4	< 2	< 10	10	39	570
LTR-ROB	Roberts Creek	< 5	< 3	50	< 2	< 100	< 1	< 2	< 2	< 100	1100	< 1	40	< 0.2	< 10	< 5	< 2	< 1	< 10	< 3	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	< 10	16	< 5	< 5
LTR-ROC	Truckee River At Rock Park	< 5	< 3	30	< 2	< 100	< 1	< 2	< 2	< 100	1000	< 1	50	< 0.2	< 10	< 5	< 2	< 1	< 10	< 3	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	13	6	< 5	< 5
LTR-STE	Steamboat Creek	< 5	< 3	40	< 2	< 100	< 1	< 2	3	< 100	2000	2	70	< 0.2	< 10	< 5	< 2	< 1	< 10	< 3	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	< 10	10	< 5	8
LTR-THO	Thomas Creek	< 5	< 3	60	< 2	< 100	< 1	< 2	3	< 100	1600	< 1	60	< 0.2	< 10	< 5	< 2	< 1	< 10	< 3	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	< 10	8	< 5	< 5
LTR-WADS	Truckee River Near Wadsworth Bridge	< 5	6	40	< 2	< 100	< 1	< 2	2	< 100	1700	1	70	< 0.2	< 10	< 5	< 2	< 1	< 10	6	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	11	8	< 5	7
LTR-WHI	White's Creek	< 5	< 3	50	< 2	< 100	< 1	< 2	6	< 100	3700	1	110	< 0.2	< 10	< 5	< 2	< 1	< 10	< 3	< 1	< 2	< 2	< 0.2	< 5	< 2	< 2	< 10	7	< 5	< 5

APPENDIX A: Snapshot Day 2006 Summary Field and Lab Data

Site Code			Site Name and Description	Water Temperature (°C)	pH	DO (ppb)	Conductivity (µs)	Turbidity (NTU) (1)	Fecal Coliform No. of Colonies per 100 mL (3)	Rated Flow cfs (4)
Lake Tahoe "On Lake" Sites										
TAH	SLAKE1		Ski run marina	13	6.5	5	100			
TAH	SLAKE1		Ski run marina - 2 ft out of harbor	13	6.5	8	80		<1	
TAH	SLAKE1		Ski run marina - 250 ft out of harbor	6	6.5	8	90			
TAH	SLAKE2		at Bijou Creek						TNTC	
TAH	SLAKE3		South shore of Timber Cove	14	6	5.5			6	
TAH	SLAKE4		Regan Beach at Lake Tahoe	14.3	6	5.5			11	
TAH	SLAKE6		South lake at Kahle/Burke	13.6	6.1	8				
TAH	SLAKE6		Round Hill, intake for RH6D	14.8	6.2				<1	
South Lake Tahoe Sites										
SLT	ANG1	-01	Angora Creek - U/S of Tahoe Blvd. Bridge	6.1	7.0 - 7.2	7				
SLT	ANG2	-00	Angora Creek - Golf Course		4.7					
SLT	ANG3	-01	Angora Creek - Washoe Meadows	8	7.4	5				
SLT	BJCR	-02	Bijou Creek - Above pioneer trail	7.8	6	7				
SLT	BJCR	-00	Bijou Creek	14.5	6	7			15	
SLT	BPDR	-01	Bijou Park Drainage	3.3	6				37	
SLT	BPDR	-02	Bijou Park Drainage @ Verdon Drive	8.8	6	5	370			
SLT	BPDR	-03	Bijou Park Drainage b/l Hansen's Resort	9.1	6.5	5	340			
SLT	BURK	-00	Burke Creek nr Pump St. @ end of Campgr	14.7	6.1	5			59	
SLT	COVE	-01	Tahoe Keys Marina Lagoons (East Channel	17	7	9	100			
SLT	ELKS	-01	Upper Truckee River at Elks Club	4.5	5.3	8				
SLT	FLLF		Fallen Leaf Lake	11.8	6.71	9.4	18.2			
SLT	GLNA	-00	Glen Alpine Creek at mouth	3.8	7.06	11.21	14			
SLT	HEAV1	-00	Heavenly Creek nr confluence @ Trout Cre	6.2	6	8				
SLT	HEAV2									
SLT	KEYS	-00	Tahoe Keys Lagoon (West Channel)	15.7	8	8	110			
SLT	MCFA	-00	McFaul Creek at mouth	12.4	6	7			7	
SLT	MCFA	-01	McFaul Creek below HWY 50	11.2		6.5			180	
SLT	MEEK	-00	Meeks Creek at mouth		6.5	8.5				
SLT	NZHR	-00	North Zephyr Creek at mouth	7.4	5.5	8				
SLT	SZHR	-01	Lower Zephyr Creek, upstream of Bridge	9.8	6	7				
SLT	TALL	-00	Tallac Creek at mouth	8.6	5.5 - 6	6			11	
SLT	TALR	-00	Taylor Creek at mouth	13.6	5.5	6				
SLT	TRMO	-00	Upper Truckee River at mouth	21.3	6	7				
SLT	TROU		Trout Creek from lake upstream by kayak	8.4	6	8				
SLT	TROU	-00	Trout Creek nr confluence w/ Upper Truckee		6	6			13	
SLT	TROU	-01	Trout Creek near HWY 50		5.75	7			17	
SLT	XMAS	-01	Xmas Creek - tributary to the Upper Trucker	4.6	5	6				

			Site Name and Description	Ammonia NH3-N (ppb) (2)	Nitrate NO3-N (ppb) (2)	Total Organic Nitrate (TKN) (ppb) (2)	Total Nitrogen (ppb)	Soluble Reactive Phos. SRP-P (ppb) (2)	Total Phosphorus TP-P (ppb) (2)
Lake Tahoe "On Lake" Sites									
TAH	SLAKE1		Ski run marina						
TAH	SLAKE1		Ski run marina - 2 ft out of harbor						
TAH	SLAKE1		Ski run marina - 250 ft out of harbor						
TAH	SLAKE2		at Bijou Creek						
TAH	SLAKE3		South shore of Timber Cove						
TAH	SLAKE4		Regan Beach at Lake Tahoe						
TAH	SLAKE6		South lake at Kahle/Burke						
TAH	SLAKE6		Round Hill, Intake for RH6D						
South Lake Tahoe Sites									
SLT	ANG1	-01	Angora Creek - U/S of Tahoe Blvd. Bridge	2	1	99(98)	102	2	10
SLT	ANG2	-00	Angora Creek - Golf Course	2	1	193	196	6	18
SLT	ANG3	-01	Angora Creek - Washoe Meadows						
SLT	BJCR	-02	Bijou Creek - Above pioneer trail	35	8	283	326	6	35
SLT	BJCR	-00	Bijou Creek	13	4	553	570	51	79
SLT	BPDR	-01	Bijou Park Drainage	9	2	321	332	14	30
SLT	BPDR	-02	Bijou Park Drainage @ Verdon Drive	35	239(235)	235	509	29	75
SLT	BPDR	-03	Bijou Park Drainage b/l Hansen's Resort	42	334	238	614	17	55
SLT	BURK	-00	Burke Creek nr Pump St. @ end of Campground l	2	1	355	358	8	24
SLT	COVE	-01	Tahoe Keys Marina Lagoons (East Channel)	17	6	239	262	5	23
SLT	ELKS	-01	Upper Truckee River at Elks Club	4	11	167	182	2	31
SLT	FLLF		Fallen Leaf Lake	12	1	291	304	1	16
SLT	GLNA	-00	Glen Alpine Creek at mouth	1	26(24)	68	95	1	5
SLT	HEAV1	-00	Heavenly Creek nr confluence @ Trout Creek	3	7	229	239	16	37
SLT	HEAV2			1	5	210	216	15	36
SLT	KEYS	-00	Tahoe Keys Lagoon (West Channel)	6	2	244	252	3	22
SLT	MCFA	-00	McFaul Creek at mouth	12	4	366	382	8	20
SLT	MCFA	-01	McFaul Creek below HWY 50	10	4	410	424	18	36(35)
SLT	MEEK	-00	Meeks Creek at mouth	1	1	137	139	2	9(9)
SLT	NZHR	-00	North Zephyr Creek at mouth						
SLT	SZHR	-01	Lower Zephyr Creek, upstream of Bridge						
SLT	TALL	-00	Tallac Creek at mouth	2	1	210	213	1(1)	11
SLT	TALR	-00	Taylor Creek at mouth	2	1	200	203	2	12
SLT	TRMO	-00	Upper Truckee River at mouth	12	1	261	274	5	32
SLT	TROU		Trout Creek from lake upstream by kayak						
SLT	TROU	-00	Trout Creek nr confluence w/ Upper Truckee	3	1	243	247	10	30
SLT	TROU	-01	Trout Creek near HWY 50						
SLT	XMAS	-01	Xmas Creek - tributary to the Upper Truckee River						

	Site Code		Site Name and Description	Water Temperature (°C)	pH	DO (ppb)	Conductivity (µs)	Turbidity (NTU) (1)	Fecal Coliform No. of Colonies per 100 mL (3)	Rated Flow cfs (4)
North Lake Tahoe Sites										
NLT	BART		Barton Creek							
NLT	BONP	-00	Bonpland Creek at mouth	10.8	5.5	7		3.26		
NLT	BRTN	0	Burton Creek		6.5	6	40	1.77		
NLT	DLRH	-00	Dollar Creek at mouth	8	5	5	50	4.92		
NLT	FRST	-00	First Creek	12	6.5	7	36.2	7.88		
NLT	GRIF	-00	Griff Creek at mouth	6	6	9	40	7.79	3	
NLT	HMWD	-00	Homewood Creek at mouth	4	6.3	8	20	1.08		
NLT	INCL	-00	Incline Creek at mouth	5	5	8	149.5	11		
NLT	KING	-00	Kings Creek					6.14		
NLT	LKFC	-00	Lake Forest Creek at mouth	12.3	6.9	6	130	2.24	3	
NLT	MADC	-00	Madden Creek at mouth	4	6.5	8	20	1.62		
NLT	MILL	0	Mill Creek	10	6.4	7	40	5.05		
NLT	QULC	-00	Quail Creek (lake side of culvert at Hwy. 89	4	6.5	8	30	1.66	<1	
NLT	RSWD	-01	Rosewood Creek	11	6.3	8	220	4.31		
NLT			Sand Harbor							
NLT	SCRT	-00	Secret Harbor Creek	5.9	5	5.5	52.5	1.86		
NLT	SLHO	-00	Slaughter House Creek at mouth	9.6	5	4	188.2	5.22	32	
NLT	SNOW	-00	Snow Creek, D/S of Hwy. 28		5	8	80	8.43		
NLT	STAR	-01	Hatchery Creek nr Star Harbor	11.8	6.3	6	110	1.8	7	
NLT	TCSP	-00	Tahoe City State Park						38	
NLT	TCUB	-00	Tahoe Creek Urban Basin at mouth	16.3	6.6	9	110	7.28	60	
NLT	THRD	-00	Third Creek	4.3	5	9	119.1	6.77		57
NLT	TUNN	-00	Tunnel Creek	6.5	5.5	7	40			
NLT	WATS	-00	Watson Creek at mouth	5.8	5.25	9	30	4.6		
NLT	WOOD	-00	Wood Creek at mouth		6		50	15.3		

			Site Name and Description	Ammonia NH3-N (ppb) (2)	Nitrate NO3-N (ppb) (2)	Total Organic Nitrate (ppb) (2)	Total Nitrogen (ppb)	Soluble Reactive Phos. SRP-P (ppb) (2)	Total Phosphorus TP-P (ppb) (2)
North Lake Tahoe Sites									
NLT	BART		Barton Creek	2	3(4)	96	101	32	40
NLT	BONP	-00	Bonpland Creek at mouth						
NLT	BRTN	0	Burton Creek	4	2	120	126	10(9)	17
NLT	DLRH	-00	Dollar Creek at mouth	4	2	155	161	11	25
NLT	FRST	-00	First Creek						
NLT	GRIF	-00	Griff Creek at mouth	4	4	226	234	10	34
NLT	HMWD	-00	Homewood Creek at mouth						
NLT	INCL	-00	Incline Creek at mouth						
NLT	KING	-00	Kings Creek						
NLT	LKFC	-00	Lake Forest Creek at mouth	3	3	123	129	24	38
NLT	MADC	-00	Madden Creek at mouth						
NLT	MILL	0	Mill Creek	2	2	223	227	22	43
NLT	QULC	-00	Quail Creek (lake side of culvert at Hwy. 89)						
NLT	RSWD	-01	Rosewood Creek	3	2	222	227	16	32
NLT			Sand Harbor	2	1	323	326	24	81(81)
NLT	SCRT	-00	Secret Harbor Creek	4(3)	6	256	266	6	19
NLT	SLHO	-00	Slaughter House Creek at mouth	3	2	441	446	23	51
NLT	SNOW	-00	Snow Creek, D/S of Hwy. 28	3	2	157	162	13	30
NLT	STAR	-01	Hatchery Creek nr Star Harbor	2(2)	1	105	108	52	64(64)
NLT	TCSP	-00	Tahoe City State Park						
NLT	TCUB	-00	Tahoe Creek Urban Basin at mouth	1	54	215	270	20	54
NLT	THRD	-00	Third Creek						
NLT	TUNN	-00	Tunnel Creek	3	1	144	148	7	14
NLT	WATS	-00	Watson Creek at mouth	3	4	183	190	8	27
NLT	WOOD	-00	Wood Creek at mouth	2	15	237	254	20	82

Site Code			Site Name and Description	Water Temperature (°C)	pH	DO (ppb)	Conductivity (µs)	Turbidity (NTU) (1)	Fecal Coliform No. of Colonies per 100 ml. (3)	Rated Flow cfs (4)
Middle Truckee River Sites										
MTR	ALDR		Alder	14.4	6	7	42	0.89		
MTR	BEAR		Bear Creek	4.1	7.5	8	40	0.10		
MTR	BIGC		Big Chief Corridor	7.0	7.85	8	40	0.00		
MTR	BOCA	-00	Boca Dam	8.0	6.5	8.5	56.5	1.535		1120
MTR	CABN		Cabin Creek	9.1	6.5	9	39.5	0		
MTR	COLD	-01	Coldstream canyon	4.6	6.5	10.5	22.5	5		
MTR	DMCB		Davies Creek	11.7	—	7.5	92	0.89		
MTR	DONN	-01	Donner Creek at Highway 89	10.6	5	5.25	48	7.135	2	417
MTR	DONN	-03	Donner Creek at Donner Lake Outlet	14.1	5	5.5	78	0		198
MTR	GLEN		Union Valley	15.3	6.75	8.125	100	18.7	26	
MTR	GRAY		Gray	5.1	5.5	7	99	38.275		NA
MTR	MART	-00	Martis Creek	10.9	7.75	8.6	70	2.825	21	
MTR	MART	-01	Martis Creek	10.2	7.5	7.8	60	1	1	
MTR	POLE		Pole Creek	5.2	8	7	40	7.915		
MTR	PROS		Prosser	7.7	8	7	24	5.83		
MTR	SAGE		Segehan	6.8	6.25	5.25	49.5	0.53		
MTR	SQCR		Squaw Creek	5.0	7.5	6	50	3.48		
MTR	TOWN		Regional Park	7.3	6.5	10.2	50	6.23		
MTR	TROU	-00	Trout Creek Lower	11.5	6	5.4	107	0.00		
MTR	TROU	-02	Trout Creek Upper	11.0	6	5.8	91	0.00		
MTR	ULTB		Upper Little Truckee	6.8	6.25	6.75	37	1.85		
Minimum Value				**3.1**	**4.7**	**4.0**	**14**	**0.0**	**1.0**	
Maximum Value				**21.3**	**8.0**	**11.2**	**370**	**38.3**	**160.0**	
Count (# of valid responses)				69	72	72	50	42	24	

			Site Name and Description	Ammonia NH3-N (ppb) (2)	Nitrate NO3-N (ppb) (2)	Total Organic Nitrate (ppb) (2)	Total Nitrogen (ppb)	Soluble Reactive Phos. SRP-P (ppb) (2)	Total Phosphorus TP-P (ppb) (2)
Middle Truckee River Sites									
MTR	ALDR		Alder						
MTR	BEAR		Bear Creek	3	17	87	107	5	15
MTR	BIGC		Big Chief Corridor	2	11	111	124	9	26
MTR	BOCA	-00	Boca Dam						
MTR	CABN		Cabin Creek						
MTR	COLD	-01	Coldstream canyon						
MTR	DMCB		Davies Creeek						
MTR	DONN	-01	Donner	3	7	148	158	5	42
MTR	DONN	-03	Donner	4	1	95	100	1	8
MTR	GLEN		Union Valley	5	94(93)	364	463	25	67
MTR	GRAY		Gray						
MTR	MART	-00	Martis Creek	4	2	181	187	14	34
MTR	MART	-01	Martis Creek	2	6	130	138	14	27
MTR	POLE		Pole Creek						
MTR	PROS		Prosser						
MTR	SAGE		Sagehen						
MTR	SQCR		Squaw Creek	3	29	113(116)	145	1	17
MTR	TOWN		Regional Park	3	11	96	110	6	30
MTR	TROU	-00	Trout Creek Lower						
MTR	TROU	-02	Trout Creek Upper						
MTR	ULTB		Upper Little Truckee						
Minimum Value				1.0	1.0	58.0	95.0	1.0	8.0
Maximum Value				42.0	334.0	553.0	814.0	52.0	67.0
			Count (# of valid responses)	47.0	47.0	47.0	47.0	47.0	47.0

Notes:
1: Turbidity (NTU) lab analysis conducted at the collection sites (Sierra Nevada College, Truckee River Watershed Council).
2: Lake Tahoe and Middle Truckee River Watershed nutrient analysis conducted by High Sierra Water Lab. Concentrations in Parts Per Billion (PPB).
3: Fecal Coliform analysis conducted at U.S. Geological Survey (Carnelian Bay). Value represents number of colonies per 100 mL.
4: Rated streamflow as reported May 20, 2008 by U.S. Geological Survey in cubic feet per second (cfs).

Water Temperature (°C) - South Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
SLT ANG1 -01	Angora Creek - U/S of Tahoe Blvd. Bridge			3.2	7		6.1
SLT ANG1 -02	Angora Creek - DS of View Circle					4	
SLT ANG2 -00	Angora Creek - Golf Course	11	5	5.5	9		
SLT ANG3 -01	Angora Creek - Washoe Meadows		6	5.7	10		8
SLT BJCR -00	Bijou Creek			6.9	9.75	16.7	14.5
SLT BJCR -01	Bijou Creek - Fairway & above			5.6	---	9.4	
SLT BJCR -02	Bijou Creek abv Pioneer			5.1		7.6	7.8
SLT BPDR -00	Bijou Park Drainage			7	11.25	11.9	
SLT BPDR -01	Bijou Park Drainage			9	13.61		3.3
SLT BPDR -02	Bijou Park Drainage b/l Hansen's Resort				9	13.1	8.8
SLT BPDR -03	Bijou Park Drainage @ Verdon Drive				14	8.3	9.1
SLT BURK -00	Burke Creek nr Pump St. @ end of Campgr	14.6	11	7.2	14.8	10	14.7
SLT BURK -01	Burke Creek at footbridge						
SLT BURK -02	Burke Creek S/O Hwy. 50				7.5		
SLT CASC -00	Cascade Creek		8.9	6.8	12	7.8	
SLT COLD1 -01	Cold Creek U/S of Pioneer Trail	9.8	4.5	3	5		
SLT COLD2 -01	Cold Creek b/l road		5.4	4.7	5		
SLT COVE -01	Tahoe Keys Marina Lagoons (E. Channel)	13.4	13	9.7	9	9	17
SLT EAGL -01	Eagle Creek (Eagle Falls loop - just S/O bridge)			4.2	6	4.2	
SLT ECHO	Echo Creek			1.4			
SLT EDGE -00	Edgewood Creek at mouth	14.1	11	7.3	14	11	
SLT EDGE -01	Edgewood Creek abv Hwy 50					6.5	
SLT ELKS -01	Upper Truckee at Elks Club	10.5	4				4.5
SLT FLLF	Fallen Leaf Lake		7.6	-	9	8.2	11.8
SLT GLNA -00	Glen Alpine Creek at mouth		4.1	3.4	5.8	2.7	3.8
SLT HEAV1 -00	Heavenly Creek nr confluence @ Trout Creek				5.6	7	6.2
SLT HEAV2 -01	Heavenly Creek upstream Pioneer Trail		8	5.3	5.8	3.2	
SLT KEYS -00	Tahoe Keys Lagoon (West Channel)	18.5	13.5	9.9	13.65	13.7	15.7
SLT LGCR -00	Lonely Gulch Creek at mouth		3.5	-	4.5		
SLT LINC -00	Lincoln Creek at Mouth			4		6.9	
SLT MARL -00	Marlette Creek at mouth			2	10		
SLT MARL -01	Marlette Creek above Hwy 28						
SLT MCFA -00	McFaul Creek at mouth			8.5	8.75	8.2	12.4
SLT MCFA -01	McFaul Creek at Hwy 50						11.2
SLT MEEK -00	Meeks Creek at mouth	12.8	10	4.3	8	8	
SLT MOSH -01	Upper Truckee River		5.5	4.1	7		
SLT NZHR -00	North Zephyr Creek at mouth		4.5	4.5	7.5	7.5	7.4
SLT RBCN -00	Rubicon Creek at mouth			3	7		
SLT SAXN -00	Saxon Creek at confluence w/ Trout Ck		4	2	4.75		
SLT SIDE -01	Upper Truckee River - Side Channel			5	20		
SLT SZHR -00	South Zephyr Creek at mouth			4.5	7	7	
SLT SZHR -01	Lower Zephyr Creek, upstream of bridge						9.8
SLT TALL -00	Tallac Creek at mouth		5.3	10.5	14.1		8.6
SLT TALR -00	Taylor Creek at mouth	14.7	4	7.5	17		13.6
SLT TALR -01	Taylor Creek above Hwy 89	22.6					
SLT TCCC1	Trout Creek, behind LTCC1	10.3	5	3.1			
SLT TCCC2	Trout Creek, behind LTCC2	11.3	5.5	5.3			
SLT TRMO -00	Upper Truckee River at mouth			-	7.5	7.5	21.3
SLT TROU -00	Trout Creek nr confluence w/ Upper Truck	12.2		7.3	8.5		
SLT TROU -01	Trout Creek near Hwy 50	11					
SLT XMAS -01	Xmas Creek - tributary to the Upper Truck	7.3	3	2.1	7	7	4.6
Minimum		7.3	3	1.4	4.5	2.7	3.3
Maximum		22.6	13.5	10.5	20	16.7	21.3

Water Temperature (°C) - North Lake Tahoe Sites

Site Code		Site Description	2001	2002	2003	2004	2005	2006
NLT BART	-01	Barton Creek		7.7	5	10	10	
NLT BCDC		Burnt Cedar Creek at Lakeshore			5.5			
NLT BLIS	-00	Bliss Creek at mouth			5	6.8		
NLT BLKW	-00	Blackwood Creek at mouth	9	5	4.6	—		
NLT BONP	-00	Bonpland Creek at mouth			2	5	5	10.8
NLT BROC	-00	Brockway Creek at mouth (E/O KB boat ramp)			-	14	14	
NLT BRTN	-01	Burton Creek		5	7	17	17	
NLT CACN	-03	Carnelian Canyon Creek at Hwy 28 -by minigolf		5.4	6	7		
NLT CBCR	-01	Carnelian Bay Creek - at hwy culverts			-	—		
NLT COON	-00	Culvert at Coon St. Beach ramp		7.5				
NLT DEER	-02	Deer Creek abv Incline near Golf Course			5.5	8	8	
NLT DLRH	-00	Dollar Creek at mouth	10		4.1	9	9	8
NLT FRST	-00	First Creek		4.8	3	7		12
NLT GLEN	-00	Glenbrook Creek at mouth				8.25	8.3	
NLT GLEN	-03	Glenbrook Creek				7.5		
NLT GLENO	-02	Glenbrook Creek at Old Hwy 50			-			
NLT GNRL	-00	General Creek at mouth	10	3.5	3.9	6		
NLT GNRL	-01	General Creek at Highway 89			4.4			
NLT GRIF	-00	Griff Creek at mouth			3.2	5.8	5.8	6
NLT GRIF	-02	Griff Creek - a/b Hwy. 28, b/l pond	9			---		
NLT HMWD	-00	Homewood Creek at mouth			5	5	5	4
NLT INCL	-00	Incline Creek at mouth		6	3	6	6	5
NLT INCL	-02	Incline Creek at gage	9					
NLT KING	-00	Kings Creek				16		
NLT LHCR	-00	Logan Creek at mouth		3.7	1.72	5.02		
NLT LHCR	-02	Logan House Creek nr water tower				6.9		
NLT LKFC	-00	Lake Forest Creek at mouth			5.3	13		12.3
NLT MADC	-00	Madden Creek at mouth			3.2	5	5	4
NLT MILL		Mill Creek						10
NLT MKNY	-00	McKinney Creek at mouth	12	3.3	1.9	7		
NLT NLHC	-00	North Logan House Creek at mouth		5.1	1.9	4.685		
NLT QULC	-00	Quail Creek (lake side of culvert at Hwy. 89)			2.8	9	9	4
NLT RSWD	-01	Rosewood Creek	7		5	8	8	11
NLT RSWD	-02	Rosewood Creek S/O Hwy. 28, D/S of golf course				6		
NLT SCRT	-00	Secret Harbor Creek			4	6.5	6.5	5.9
NLT SECD	-01	Second Creek (off Lakeshore Drive)			4.11	4.95		
NLT SLHO	-00	Slaughter House Creek at mouth			9	8.75	8.8	9.6
NLT SLHO	-01	Slaughter House Creek at Slaughterhouse Rd.				10.5		
NLT SNOW	-00	Snow Creek, D/S of Hwy. 28			6	12	12	
NLT STAR	-01	Hatchery Creek nr Star Harbor		6	5	8	8	11.8
NLT TCSP	-00	Tahoe City State Park		5	8.1			
NLT TCUB	-00	Tahoe Creek Urban Basin at mouth			5.5	8	8	16.3
NLT THRD	-00	Third Creek	8.9	2.5	4	5	5	4.3
NLT THRD	-01	Third Creek at Hwy 431						
NLT TUNN	-00	Tunnel Creek		4	3	6	6	6.5
NLT WARD	-00	Ward Creek at mouth	7.8		9	—		
NLT WARD	-01	Ward Creek at Highway 89			7			
NLT WATS	-00	Watson Creek at mouth		6.4	4	4	4	5.8
NLT WOOD	-00	Wood Creek at mouth		3	2	5	5	
NLT WOOD	-02	Wood Creek - b/h commercial boat / auto repair shop			3	6.5	6.5	
Minimum			7	2.5	1.72	4	4	4
Maximum			12	7.7	9	17	17	16.3

Water Temperature (°C) - Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
TAH ESLTTL	Lake Tahoe at Thunderbird Lodge						
TAH NLAKE1	Lake Tahoe at Dollar Point		8.5	6.2			
TAH NLAKE2	Lake Tahoe near Sunnyside	10.5	7	6.2			
TAH NLAKE3	Lake Tahoe Near Tahoe City Outfall #65	10	7.5	5.9			
TAH NLAKE4	Lake Tahoe Near Watson Creek	12	8.5	6.5			
TAH NLAKE5	Lake Tahoe at Memorial Point			10.5	12.2		
TAH SLAKE1	Lake Tahoe inside Ski Run Marina			7		12	13
TAH SLAKE1	Lake Tahoe 2 ft. outside Ski Run Marina			7			13
TAH SLAKE1	Lake Tahoe 250 ft. outside Ski Run Marina					8	6
TAH SLAKE2	Lake Tahoe at Bijou Creek				28	7.8	
TAH SLAKE3	South Shore of Timber Cove				28		
TAH SLAKE4	Lake Tahoe at Reagan Beach					11.9	14.3
TAH SLAKE5	South Lake at Kahle Drive					8	13.6
TAH SLAKE6	Lake Tahoe at Round Hill Pines					9.4	14.8
Minimum		10	7	5.9	12.2	7.8	6
Maximum		12	8.5	10.5	28	12	14.8

Water Temperature (°C) - Middle Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
MTR ALDR	Alder Creek near Emigrant trailhead		5.5	5	9	5.9	
MTR BEAR	Bear Creek across from stables	8	4	5	6.5	10.5	4.1
MTR BIGC	Truckee River near Goose Meadows			6	7.5	5.5	6.95
MTR BOCA -00	Little Truckee River below Boca Dam			8.7	10.4	9.25	7.95
MTR BOCA -01	Little Truckee River at Boyington Mill			8.5	9.1	11.4	
MTR BOCA -02	Worn Mill Creek		5	5.1			
MTR CABN	Cabin Creek		5.3	4	7		9.1
MTR COLD -00	Cold Creek near confluence with Donner Creek		4.4	5	7		
MTR DEEP	Deep Creek upstream of Hwy 89			6	6		
MTR DMCB	Davies Creek			7.9		8.2	11.7
MTR DONN -01	Donner Creek at Hwy 89		4	8	9	9.8	11.7
MTR DONN -03	Donner Creek at Donner Lake Outlet					8.9	14.1
MTR GLEN	Union Valley Creek near mouth			7	9	9.85	
MTR GRAY	Gray Creek			3	7	5.75	6.05
MTR I80C	Truckee River at Floriston (under I-80)		7	7	10		
MTR INDE	Independence Creek at dirt road crossing			10.2	8		
MTR MART -00	Martis Creek at mouth		6.5	5	9	7	10.85
MTR MART -01	Martis Creek at ACOE				9	5.7	10.2
MTR POLE	Pole Creek			3.5	9	4	5.2
MTR PROS	Prosser Creek		5	4	6	3.85	7.7
MTR SAGE	Sagehen Creek		5	3.7	5	5.1	6.75
MTR SILVR	Silver Creek at Hwy 89			4.1	8		
MTR SQCR	Squaw Creek		5	6.5	11	4.8	5
MTR TOWN	Truckee River at Truckee Regional Park			5.5	7	6.3	7.25
MTR TR01	Truckee River near Tahoe City			5.5	10		
MTR TROU -00	Trout Creek near mouth	12.5	7	6	9	5.6	11.5
MTR TROU -01	Trout Creek at I-80 undercrossing			5.7	7		
MTR TROU -02	Trout Creek Upper at Bennett Flat					11.5	11
MTR TRUC -00	Truckee River below Lake Tahoe Dam		9.6				
MTR ULTB	Upper Little Truckee River		8		10	5.95	6.8
Minimum		8	4	3	5	3.85	4.1
Maximum		12.5	9.6	10.2	11	11.5	14.1

Water Temperature (°C) - Lower Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
LTR ALU	Alum Creek		17.5	9		9	10
LTR BUL	Bull Ranch Creek			10		6.5	
LTR CHA -1	Chalk Creek			8	13	5.5	10
LTR DAV	Davis Creek		7				8
LTR DOG	Dog Creek		11	7	10		
LTR DRY	Dry Creek		5	9	14.5	13	17
LTR EVA	Evan Creek				15	13	15
LTR GAL	Galena Creek		7.1				3
LTR HUN	Hunter Creek		9.2				7
LTR IDL (Q1)	Truckee River at Idlewild Park		9				11
LTR JUM	Jumbo Creek			7.8			
LTR LEW	Lewer's Creek			9	10	9.5	
LTR MCR	Truckee River at McCarran Ranch						10.8
LTR MUCR	Musgrove Creek		10	13			
LTR NIXB (Q4)	Truckee River above Nixon Bridge		14				11.09
LTR NTD	North Truckee Drain						14.5
LTR PYRL	Pyramid Lake						14.47
LTR Q2	Truckee River at Glendale Park		12				
LTR Q3	Truckee River across from I-80 rest area past Vista						
LTR ROB	Roberts Creek			9	5.2	10	9.3
LTR ROC	Truckee River at Rock Park						8.7
LTR SMBT 1	Steamboat Creek (Near Reno)	13.5	3				
LTR SMBT 2	Steamboat Creek (Near Reno)	17.3	8				
LTR SMBT 3	Steamboat Creek (Near Reno)		9				
LTR STE	Steamboat Creek						10
LTR SUN	Sunrise Creek			8			
LTR THO	Thomas Creek		7	9	13	9	11
LTR UNN	Unnamed Creek			7.5			
LTR WADS (Q5)	Truckee River near Wadsworth Bridge		14				11.14
LTR WHI	White's Creek		11	9	8.5	7	9
LTR WHCR2.1	White's Creek		14.5				
Minimum		13.5	3	7	5.2	5.5	3
Maximum		17.3	17.5	13	15	13	17

Electrical Conductivity (µs) - South Lake Tahoe Sites

Site Code		Site Description	2001	2002	2003	2004	2005	2006
SLT ANG1	-01	Angora Creek - U/S of Tahoe Blvd. Bridge		10	70	10		
SLT ANG1	-02	Angora Creek DS of View Circle					10	
SLT ANG2	-00	Angora Creek - Golf Course	30	30	10	30		
SLT ANG3	-01	Angora Creek - Washoe Meadows		40	30	20		
SLT BJCR	-00	Bijou Creek		325	40	665	400	
SLT BJCR	-01	Bijou Creek - Fairway & above			230	—	280	
SLT BJCR	-02	Bijou Creek abv Pioneer			160		95	
SLT BPDR	-00	Bijou Park Drainage			100	475	375	
SLT BPDR	-01	Bijou Park Drainage			-	484		
SLT BPDR	-02	Bijou Park Drainage b/l Hansen's Resort				450	430	370
SLT BPDR	-03	Bijou Park Drainage @ Verdon Drive				43	500	340
SLT BURK	-00	Burke Creek nr Pump St. @ end of Campgr	137	160	-	170	200	
SLT BURK	-01	Burke Creek at footbridge						
SLT BURK	-02	Burke Creek S/O Hwy. 50				130		
SLT CASC	-00	Cascade Creek		12	187	10	10	
SLT COLD1	-01	Cold Creek U/S of Pioneer Trail		40	10	30		
SLT COLD2	-01	Cold Creek b/l road	49	40	50	30		
SLT COVE	-01	Tahoe Keys Marina Lagoons (East Channel	30	145	60	119.65	100	100
SLT EAGL	-01	Eagle Creek (Eagle Falls loop - just S/O bridge)			155	10	10	
SLT ECHO		Echo Creek		10	10			
SLT EDGE	-00	Edgewood Creek at mouth	120	120	18	130	62	
SLT EDGE	-01						62	
SLT ELKS	-01	Upper Truckee at Elks Club	47	20				
SLT FLLP		Fallen Leaf Lake	18.4	16	150	—	19	18.2
SLT GLNA	-00	Glen Alpine Creek at mouth	15.5		22	—	13	14
SLT HEAV1	-00	Heavenly Creek nr confluence @ Trout Creek		50		---	30	
SLT HEAV2	-01	Heavenly Creek upstream Pioneer Trail			520	---	30	
SLT KEYS	-00	Tahoe Keys Lagoon (West Channel)	80	135	138	104.45	130	110
SLT LGCR	-00	Lonely Gulch Creek at mouth		30	30	20		
SLT LINC	-00	Lincoln Creek at Mouth			710		36	
SLT MARL	-00	Marlette Creek at mouth	80	65	57	45		
SLT MARL	-01	Marlette Creek above Hwy 28						
SLT MCFA	-00	McFaul Creek at mouth			126	95	45	
SLT MCFA	-01	McFaul Creek at Hwy 50					44	
SLT MEEK	-00	Meeks Creek at mouth			60	15	10	
SLT MOSH	-01	Upper Truckee River	30	30	70	---		
SLT NZHR	-00	North Zephyr Creek at mouth		110	110	110	97	
SLT RBCN	-00	Rubicon Creek at mouth			50	40		
SLT SAXN	-00	Saxon Creek at confluence w/ Trout Ck		40	50	35		
SLT SIDE	-01	Upper Truckee River - Side Channel			59	---		
SLT SZHR	-00	South Zephyr Creek at mouth		110	110	125		
SLT SZHR	-01	Lower Zephyr Creek, upstream of bridge					92	
SLT TALL	-00	Tallac Creek at mouth			50	30	20	
SLT TALR	-00	Taylor Creek at mouth	31		20	22	20	
SLT TALR	-01	Taylor Creek above Hwy 89	31					
SLT TCCC1		Trout Creek, behind LTCC1		40	50			
SLT TCCC2		Trout Creek, behind LTCC2		40	40			
SLT TRMO	-00	Upper Truckee River at mouth			58	30	30	
SLT TROU	-00	Trout Creek nr confluence w/ Upper Trucke	30	40	50	30		
SLT TROU	-01	Trout Creek near Hwy 50	30					
SLT XMAS	-01	Xmas Creek - tributary to the Upper Trucke	20	10	50	10	20	
Minimum			15.5	10	10	10	10	14
Maximum			137	325	710	665	500	370

Electrical Conductivity (µs) - North Lake Tahoe Sites

Site Code		Site Description	2001	2002	2003	2004	2005	2006
NLT BART	-01	Barton Creek		50	-	210	60.5	
NLT BCDC		Burnt Cedar Creek at Lakeshore			92			
NLT BLIS	-00	Bliss Creek at mouth			340	140		
NLT BLKW	-00	Blackwood Creek at mouth	30	50	100	---	30	
NLT BONP	-00	Bonpland Creek at mouth			62	80	60	
NLT BROC	-00	Brockway Creek at mouth (E/O KB boat ramp)			80	450	180	
NLT BRTN	-01	Burton Creek		40	-	100	29	40
NLT CACN	-03	Carnelian Canyon Creek at Hwy 28 -by minigolf		110	57	135		
NLT CBCR	-01	Carnelian Bay Creek - at hwy culverts		40	110	---		
NLT COON	-00	Culvert at Coon St. Beach Ramp		170				
NLT DEER	-02	Deer Creek abv Incline near Golf Course			40	30	172	
NLT DLRH	-00	Dollar Creek at mouth	80	70	230	---	39	50
NLT FRST	-00	First Creek		70	61.9	60		36.2
NLT GLEN	-00	Glenbrook Creek at mouth				352	158.8	
NLT GLEN	-03	Glenbrook Creek				382.5		
NLT GLENOS	-02	Glenbrook Creek at Old Hwy 50			80			
NLT GNRL	-00	General Creek at mouth	30	20	-	10		
NLT GNRL	-01	General Creek at Highway 89			25			
NLT GRIF	-00	Griff Creek at mouth		55	25	60	40	40
NLT GRIF	-02	Griff Creek - a/b Hwy. 28, b/l pond	120			65	45	
NLT HMWD	-00	Homewood Creek at mouth		45	78	50	40	20
NLT INCL	-00	Incline Creek at mouth	82.8	80	77.5	60	50	149.5
NLT INCL	-02	Incline Creek at gage						
NLT KING	-00	Kings Creek				410		
NLT LHCR	-00	Logan Creek at mouth		113	110	0.1135		
NLT LHCR	-02	Logan House Creek nr water tower				0.051		
NLT LKFC	-00	Lake Forest Creek at mouth		110	127	150	30	130
NLT MADC	-00	Madden Creek at mouth		50	116	30	81.5	20
NLT MILL		Mill Creek						40
NLT MKNY	-00	McKinney Creek at mouth	30	20	20	10		
NLT NLHC	-00	North Logan House Creek at mouth		65	30	0.0765		
NLT QULC	-00	Quail Creek (lake side of culvert at Hwy. 89)		30	90	40	217	30
NLT RSWD	-01	Rosewood Creek	50		44.5	---	108.5	220
NLT RSWD	-02	Rosewood Creek S/O Hwy. 28, D/S of golf course				40		
NLT SCRT	-00	Secret Harbor Creek			260	70	129.5	52.5
NLT SECD	-01	Second Creek (off Lakeshore Drive)		70	90	50		
NLT SLHO	-00	Slaughter House Creek at mouth			160	503	95	188.2
NLT SLHO	-01	Slaughter House Creek at Slaughterhouse Rd.				177.25		
NLT SNOW	-00	Snow Creek, D/S of Hwy. 28		130	-	140	68	80
NLT STAR	-01	Hatchery Creek nr Star Harbor	170	100	160	80	26	110
NLT TCSP	-00	Tahoe City State Park			70		135	100
NLT TCUB	-00	Tahoe Creek Urban Basin at mouth			27	105	40	110
NLT THRD	-00	Third Creek	68.5	70	13	---	50	119.1
NLT THRD	-01	Third Creek at Hwy 431		45				
NLT TUNN	-00	Tunnel Creek		60	110	65	65	40
NLT WARD	-00	Ward Creek at mouth	30		60	---		
NLT WARD	-01	Ward Creek at Highway 89			40			
NLT WATS	-00	Watson Creek at mouth		70	40	50	39	30
NLT WOOD	-00	Wood Creek at mouth		50	50	45	45	50
NLT WOOD	-02	Wood Creek - b/h commercial boat / auto repair shop		50	70	40	40	
Minimum			30	20	13	0.051	26	20
Maximum			170	170	340	503	217	220

Electrical Conductivity (µs) - Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
TAH ESLTTL	Lake Tahoe at Thunderbird Lodge	80	80				
TAH NLAKE1	Lake Tahoe at Dollar Point		100	82.2			
TAH NLAKE2	Lake Tahoe near Sunnyside		100	80.5			
TAH NLAKE3	Lake Tahoe Near Tahoe City Outfall #65	80	100	82			
TAH NLAKE4	Lake Tahoe Near Watson Creek		90	82.5			
TAH NLAKE5	Lake Tahoe at Memorial Point		.	70			
TAH SLAKE1	Lake Tahoe inside Ski Run Marina			240		80	100
TAH SLAKE1	Lake Tahoe 2 ft. outside Ski Run Marina	129.8		90			80
TAH SLAKE1	Lake Tahoe 250 ft. outside Ski Run Marina					80	90
TAH SLAKE2	Lake Tahoe at Bijou Creek				70	80	
TAH SLAKE3	South Shore of Timber Cove				85		
TAH SLAKE4	Lake Tahoe at Reagan Beach					40	
TAH SLAKE5	South Lake at Kahle Drive					100	
TAH SLAKE6	Lake Tahoe at Round Hill Pines					80	
Minimum		80	80	70	70	40	80
Maximum		129.8	100	240	85	100	100

Electrical Conductivity (µs) - Middle Truckee River Sites

Site Code		Site Description	2001	2002	2003	2004	2005	2006
MTR ALDR		Alder Creek near Emigrant trailhead		23.5	10	70	47	42
MTR BEAR		Bear Creek across from stables	40	40	80	61	37	40
MTR BIGC		Truckee River near Goose Meadows			90	70		40
MTR BOCA	-00	Little Truckee River below Boca Dam			74	66.5	95	56.5
MTR BOCA	-01	Little Truckee River at Boyington Mill			72	64.5	56.5	
MTR BOCA	-02	Worn Mill Creek		110	120			
MTR CABN		Cabin Creek		40	60	60		39.5
MTR COLD	-00	Cold Creek near confluence with Donner Creek		40	50	30		
MTR DEEP		Deep Creek upstream of Hwy 89			50	39		
MTR DMCB		Davies Creek		90			93	92
MTR DONN	-01	Donner Creek at Hwy 89		100	80	60	75	48
MTR DONN	-03	Donner Creek at Donner Lake Outlet					90	76
MTR GLEN		Union Valley Creek near mouth			120	194		
MTR GRAY		Gray Creek			220	110	109	99
MTR I80C		Truckee River at Floriston (under I-80)		70	90	78		
MTR INDE		Independence Creek at dirt road crossing		40	60	79		
MTR MART	-00	Martis Creek at mouth		90	110	126.5	60	70
MTR MART	-01	Martis Creek at ACOE				98	50	60
MTR POLE		Pole Creek		60	80	50.5	53	40
MTR PROS		Prosser Creek		23	60	40	30	24
MTR SAGE		Sagehen Creek			80	87	42.5	49.5
MTR SILVR		Silver Creek at Hwy 89		80		84		
MTR SQCR		Squaw Creek		70	140	57	62	50
MTR TOWN		Truckee River at Truckee Regional Park			110	73.5	65.5	50
MTR TR01		Truckee River near Tahoe City		70	100	90	88	
MTR TROU	-00	Trout Creek near mouth	130	120	100	161	95	107
MTR TROU	-01	Trout Creek at I-80 undercrossing		110	140	143		
MTR TROU	-02	Trout Creek Upper at Bennett Flat					87	91
MTR TRUC	-00	Truckee River below Lake Tahoe Dam	80	70				
MTR ULTB		Upper Little Truckee River		35	120	43.5	33	37
Minimum			40	23	10	30	30	24
Maximum			130	120	220	194	109	107

Electrical Conductivity (µs) - Lower Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
LTR ALU	Alum Creek		743	120		280	380
LTR BUL	Bull Ranch Creek			450		350	
LTR CHA -1	Chalk Creek			2,575	730	1950	320
LTR DAV	Davis Creek		115				90
LTR DOG	Dog Creek		196	160	220		
LTR DRY	Dry Creek		193	230	365	380	380
LTR EVA	Evan Creek				260	260	250
LTR GAL	Galena Creek		112				10
LTR HUN	Hunter Creek		140				70
LTR IDL (Q1)	Truckee River at Idlewild Park		100				60
LTR JUM	Jumbo Creek			430			
LTR LEW	Lewer's Creek			160	110	170	
LTR MCR	Truckee River at McCarran Ranch						98
LTR MUCR	Musgrove Creek		144	280			
LTR NIXB (Q4)	Truckee River above Nixon Bridge		145				110
LTR NTD	North Truckee Drain						714
LTR PYRL	Pyramid Lake						3196
LTR Q2	Truckee River at Glendale Park		106				
LTR Q3	Truckee River across from I-80 rest area past Vista		156				
LTR ROB	Roberts Creek			160	110	105	144
LTR ROC	Truckee River at Rock Park						65
LTR SMBT 1	Steamboat Creek (Near Reno)		189				
LTR SMBT 2	Steamboat Creek (Near Reno)		738				
LTR SMBT 3	Steamboat Creek (Near Reno)		661				
LTR STE	Steamboat Creek						100
LTR SUN	Sunrise Creek			160			
LTR THO	Thomas Creek		102	150	105	90	100
LTR UNN	Unnamed Creek			110			
LTR WADS (Q5)	Truckee River near Wadsworth Bridge		136				102
LTR WHI	White's Creek		84	120	65	90	8
LTR WHCR2.1	White's Creek		557				
Minimum			84	110	65	90	8
Maximum			743	2575	730	1950	3196

Dissolved Oxygen (mg/L) - South Lake Tahoe Sites

Site Code			Site Description	2001	2002	2003	2004	2005	2006
SLT	ANG1	-01	Angora Creek - U/S of Tahoe Blvd. Bridge			8	---		7
SLT	ANG2	-00	Angora Creek - Golf Course	5	5.5	8	---		
SLT	ANG3	-01	Angora Creek - Washoe Meadows			9	---		5
SLT	BJCR	-00	Bijou Creek			-	7.75		7
SLT	BJCR	-01	Bijou Creek - Fairway & above			-	---		
SLT	BJCR	-02	Bijou Creek abv Pioneer			-			7
SLT	BPDR	-00	Bijou Park Drainage			-			
SLT	BPDR	-01	Bijou Park Drainage			-			
SLT	BPDR	-02	Bijou Park Drainage b/l Hansen's Resort				---		5
SLT	BPDR	-03	Bijou Park Drainage @ Verdon Drive				---		5
SLT	BURK	-00	Burke Creek nr Pump St. @ end of Campgrou	7.5		9	---	9	5
SLT	BURK	-01	Burke Creek at footbridge						
SLT	BURK	-02	Burke Creek S/O Hwy. 50				7		
SLT	CASC	-00	Cascade Creek		9	9	---		
SLT	COLD1	-01	Cold Creek U/S of Pioneer Trail		12.8	8	---		
SLT	COLD2	-01	Cold Creek b/l road		11.2	10	---		
SLT	COVE	-01	Tahoe Keys Marina Lagoons (East Channel)	8.72	8	9.22	9.535	9.5	9
SLT	EAGL	-01	Eagle Creek (Eagle Falls loop - just S/O bridge)			11	---		
SLT	ECHO		Echo Creek		9	6			
SLT	EDGE	-00	Edgewood Creek at mouth		10	7	---	8	
SLT	EDGE	-01	Edgewood Creek abv Hwy 50					4	
SLT	ELKS	-01	Upper Truckee at Elks Club	8.6					8
SLT	FLLF		Fallen Leaf Lake	8.5	9.9	-		9.5	9.4
SLT	GLNA	-00	Glen Alpine Creek at mouth	7.8	10.8	10.16		11.5	11.21
SLT	HEAV1	-00	Heavenly Creek nr confluence @ Trout Creek				---	7	8
SLT	HEAV2	-01	Heavenly Creek upstream Pioneer Trail		8	-	---	7	
SLT	KEYS	-00	Tahoe Keys Lagoon (West Channel)	9.09	8	10.42	9.08	9.08	8
SLT	LGCR	-00	Lonely Gulch Creek at mouth			-			
SLT	LINC	-00	Lincoln Creek at Mouth			-			
SLT	MARL	-00	Marlette Creek at mouth	6		9	7		
SLT	MARL	-01	Marlette Creek above Hwy 28						
SLT	MCFA	-00	McFaul Creek at mouth			8	6.5		7
SLT	MCFA	-01	McFaul Creek at Hwy 50						6.5
SLT	MEEK	-00	Meeks Creek at mouth	7	10	8	—		8.5
SLT	MOSH	-01	Upper Truckee River	4	9.5	10	9		
SLT	NZHR	-00	North Zephyr Creek at mouth			-			8
SLT	RBCN	-00	Rubicon Creek at mouth			-	---		
SLT	SAXN	-00	Saxon Creek at confluence w/ Trout Ck			8	9		
SLT	SIDE	-01	Upper Truckee River - Side Channel			10	---		
SLT	SZHR	-00	South Zephyr Creek at mouth			-	---		
SLT	SZHR	-01	Lower Zephyr Creek, upstream of bridge						7
SLT	TALL	-00	Tallac Creek at mouth		9	8	8.175	8.2	6
SLT	TALR	-00	Taylor Creek at mouth		10	8	8.6	8.6	6
SLT	TALR	-01	Taylor Creek above Hwy 89						
SLT	TCCC1		Trout Creek, behind LTCC1	8	9.5	7			
SLT	TCCC2		Trout Creek, behind LTCC2	7.5	6.5	5			
SLT	TRMO	-00	Upper Truckee River at mouth	9		-	---		7
SLT	TROU	-00	Trout Creek nr confluence w/ Upper Truckee	7	10	7	—		6
SLT	TROU	-01	Trout Creek near Hwy 50						7
SLT	XMAS	-01	Xmas Creek - tributary to the Upper Truckee	10		10	---		6
Minimum				4	5.5	5	6.5	4	5
Maximum				10	12.8	11	9.535	11.5	11.21

Dissolved Oxygen (mg/L) - North Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
NLT BART -01	Barton Creek		7	-	7	7	
NLT BCDC	Burnt Cedar Creek at Lakeshore			-			
NLT BLIS -00	Bliss Creek at mouth			7	6		
NLT BLKW -00	Blackwood Creek at mouth	7		8	---		
NLT BONP -00	Bonpland Creek at mouth			-			7
NLT BROC -00	Brockway Creek at mouth (E/O KB boat ramp)			-	4	4	
NLT BRTN -01	Burton Creek			-	7.5	7.5	6
NLT CACN -03	Carnelian Canyon Creek at Hwy 28 -by minigolf		8	-	5.5		
NLT CBCR -01	Carnelian Bay Creek - at hwy culverts			-	---		
NLT COON -00	Culvert at Coon St. Beach ramp		7.5				
NLT DEER -02	Deer Creek abv Incline near Golf Course			7	10	10	
NLT DLRH -00	Dollar Creek at mouth			9	6	6	5
NLT FRST -00	First Creek		10	-	11		7
NLT GLEN -00	Glenbrook Creek at mouth						
NLT GLEN -03	Glenbrook Creek				6		
NLT GLENO -02	Glenbrook Creek at Old Hwy 50			-			
NLT GNRL -00	General Creek at mouth	8		10	5		
NLT GNRL -01	General Creek at Highway 89			10			
NLT GRIF -00	Griff Creek at mouth			10	10	10	9
NLT GRIF -02	Griff Creek - a/b Hwy. 28, b/l pond				10	10	
NLT HMWD -00	Homewood Creek at mouth			9	8	8	8
NLT INCL -00	Incline Creek at mouth		11	12	11	11	8
NLT INCL -02	Incline Creek at gage						
NLT KING -00	Kings Creek				5		
NLT LHCR -00	Logan Creek at mouth		9.7	11.95	9.075		
NLT LHCR -02	Logan House Creek nr water tower				8.62		
NLT LKFC -00	Lake Forest Creek at mouth			8	8.5		6
NLT MADC -00	Madden Creek at mouth			5	6	6	8
NLT MILL	Mill Creek						7
NLT MKNY -00	McKinney Creek at mouth	8		11	5		
NLT NLHC -00	North Logan House Creek at mouth		10.3	11.43	9.485		
NLT QULC -00	Quail Creek (lake side of culvert at Hwy. 89)			8	8	8	8
NLT RSWD -01	Rosewood Creek		5.5		7	7	8
NLT RSWD -02	Rosewood Creek S/O Hwy. 28, D/S of golf course				9		
NLT SCRT -00	Secret Harbor Creek			7	7	7	5.5
NLT SECD -01	Second Creek (off Lakeshore Drive)			10.7	8		
NLT SLHO -00	Slaughter House Creek at mouth			7	5	5	4
NLT SLHO -01	Slaughter House Creek at Slaughterhouse Rd.				5		
NLT SNOW -00	Snow Creek, D/S of Hwy. 28			-	5.5	5.5	6
NLT STAR -01	Hatchery Creek nr Star Harbor		7	-	8	8	6
NLT TCSP -00	Tahoe City State Park		10	2.5			6
NLT TCUB -00	Tahoe Creek Urban Basin at mouth			7	5.75	5.75	9
NLT THRD -00	Third Creek			6	7	7	9
NLT THRD -01	Third Creek at Hwy 431		7				
NLT TUNN -00	Tunnel Creek		7	-	5	5	7
NLT WARD -00	Ward Creek at mouth	9		7	---		
NLT WARD -01	Ward Creek at Highway 89			7			
NLT WATS -00	Watson Creek at mouth			8	9	9	9
NLT WOOD -00	Wood Creek at mouth			-	9	9	
NLT WOOD -02	Wood Creek - b/h commercial boat / auto repair shop			-	7	7	
Minimum		7	5.5	2.5	4	4	4
Maximum		9	11	12	11	11	9

Dissolved Oxygen (mg/L) - Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
TAH ESLTTL	Lake Tahoe at Thunderbird Lodge						
TAH NLAKE1	Lake Tahoe at Dollar Point		10	7.5			
TAH NLAKE2	Lake Tahoe near Sunnyside	9.6	10.8	7			
TAH NLAKE3	Lake Tahoe Near Tahoe City Outfall #65		10.1	6			
TAH NLAKE4	Lake Tahoe Near Watson Creek	9.4	10.3	7.5			
TAH NLAKE5	Lake Tahoe at Memorial Point						
TAH SLAKE1	Lake Tahoe inside Ski Run Marina			8		5.5	5
TAH SLAKE1	Lake Tahoe 2 ft. outside Ski Run Marina						6
TAH SLAKE1	Lake Tahoe 250 ft. outside Ski Run Marina						6
TAH SLAKE2	Lake Tahoe at Bijou Creek						
TAH SLAKE3	South Shore of Timber Cove						5.5
TAH SLAKE4	Lake Tahoe at Reagan Beach						5.5
TAH SLAKE5	South Lake at Kahle Drive					8	8
TAH SLAKE6	Lake Tahoe at Round Hill Pines						
Minimum		9.4	10	6		5.5	5
Maximum		9.6	10.8	8		8	8

Dissolved Oxygen (mg/L) - Middle Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
MTR ALDR	Alder Creek near Emigrant trailhead		11.4	10	7.5	8.5	7
MTR BEAR	Bear Creek across from stables			8	7.75		8
MTR BIGC	Truckee River near Goose Meadows			8	9	9.6	8
MTR BOCA -00	Little Truckee River below Boca Dam			5.5		6.5	8.5
MTR BOCA -01	Little Truckee River at Boyington Mill			7		9	
MTR BOCA -02	Worn Mill Creek		9				
MTR CABN	Cabin Creek		8	9	6.5		9
MTR COLD -00	Cold Creek near confluence with Donner Creek			9	5.5		
MTR DEEP	Deep Creek upstream of Hwy 89			7			
MTR DMCB	Davies Creek					7	7.5
MTR DONN -01	Donner Creek at Hwy 89		7	9	5.5	8	5.25
MTR DONN -03	Donner Creek at Donner Lake Outlet					9.9	5.5
MTR GLEN	Union Valley Creek near mouth			5	8	8.5	
MTR GRAY	Gray Creek			9	7	7	7
MTR I80C	Truckee River at Floriston (under I-80)		9	7	8		
MTR INDE	Independence Creek at dirt road crossing			6	8.5		
MTR MART -00	Martis Creek at mouth		9	9		7	8.6
MTR MART -01	Martis Creek at ACOE				9	8.8	7.8
MTR POLE	Pole Creek		4.5	10	6	8	7
MTR PROS	Prosser Creek		11.16	9	9	9.5	7
MTR SAGE	Sagehen Creek				8.5	8	5.25
MTR SILVR	Silver Creek at Hwy 89		7	9			
MTR SQCR	Squaw Creek			6	5.5	7	6
MTR TOWN	Truckee River at Truckee Regional Park			6.9	3	8	10.2
MTR TR01	Truckee River near Tahoe City			9.5			
MTR TROU -00	Trout Creek near mouth		9	9	9.5	9.5	5.4
MTR TROU -01	Trout Creek at I-80 undercrossing			11.45	8		
MTR TROU -02	Trout Creek Upper at Bennett Flat				.	9.5	5.8
MTR TRUC -00	Truckee River below Lake Tahoe Dam						
MTR ULTB	Upper Little Truckee River		5		5.25	8	6.75
Minimum			4.5	5	3	6.5	5.25
Maximum			11.4	11.45	9.5	9.9	10.2

Dissolved Oxygen (mg/L) - Lower Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
LTR ALU	Alum Creek		9.6	8		7	3.5
LTR BUL	Bull Ranch Creek					9	
LTR CHA -1	Chalk Creek				8	7.5	5.75
LTR DAV	Davis Creek						7
LTR DOG	Dog Creek		7		8		
LTR DRY	Dry Creek		12		6	7	8
LTR EVA	Evan Creek				10.5	12	7
LTR GAL	Galena Creek		11.7				7
LTR HUN	Hunter Creek		10.5				8
LTR IDL (Q1)	Truckee River at Idlewild Park		8				7
LTR JUM	Jumbo Creek						
LTR LEW	Lewer's Creek				8	8.5	
LTR MCR	Truckee River at McCarran Ranch						10
LTR MUCR	Musgrove Creek						
LTR NIXB (Q4)	Truckee River above Nixon Bridge		8.5				10.06
LTR NTD	North Truckee Drain						11
LTR PYRL	Pyramid Lake						10.36
LTR Q2	Truckee River at Glendale Park						
LTR Q3	Truckee River across from I-80 rest area past Vista						
LTR ROB	Roberts Creek			8	3	8	7.5
LTR ROC	Truckee River at Rock Park						7
LTR SMBT 1	Steamboat Creek (Near Reno)		5.8				
LTR SMBT 2	Steamboat Creek (Near Reno)		8				
LTR SMBT 3	Steamboat Creek (Near Reno)						
LTR STE	Steamboat Creek						4
LTR SUN	Sunrise Creek						
LTR THO	Thomas Creek		7		8	9	6
LTR UNN	Unnamed Creek						
LTR WADS (Q5)	Truckee River near Wadsworth Bridge		9.3				10.34
LTR WHI	White's Creek		1		9	9	9
LTR WHCR2.1	White's Creek		6				
Minimum			1	8	3	7	3.5
Maximum			12	8	10.5	12	11

pH - South Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
SLT ANG1 -01	Angora Creek - U/S of Tahoe Blvd. Bridge		6.8	5.4	---		7.1
SLT ANG1 -02	Angora Creek - DS of View Circle					6.8	
SLT ANG2 -00	Angora Creek - Golf Course	6.75		5.5	5.5		4.7
SLT ANG3 -01	Angora Creek - Washoe Meadows		6.5	5.75	5		7.4
SLT BJCR -00	Bijou Creek		8	5	—	7	6
SLT BJCR -01	Bijou Creek - Fairway & above			5		6.5	
SLT BJCR -02	Bijou Creek abv Pioneer			5.5		6.5	6
SLT BPDR -00	Bijou Park Drainage			6	6.48	6.5	
SLT BPDR -01	Bijou Park Drainage			6	6.92		6
SLT BPDR -02	Bijou Park Drainage b/l Hansen's Resort				6.5	6.5	6
SLT BPDR -03	Bijou Park Drainage @ Verdon Drive				---	6.5	6.5
SLT BURK -00	Burke Creek nr Pump St. @ end of Campground Rd.			6	6.25	6.5	6.1
SLT BURK -01	Burke Creek at footbridge	7					
SLT BURK -02	Burke Creek S/O Hwy. 50				8		
SLT CASC -00	Cascade Creek			5.5	5	6	
SLT COLD1 -01	Cold Creek U/S of Pioneer Trail			5.5	---		
SLT COLD2 -01	Cold Creek b/l road	7		-	---		
SLT COVE -01	Tahoe Keys Marina Lagoons (East Channel)		6.5	8.1	9	9	7
SLT EAGL -01	Eagle Creek (Eagle Falls loop - just S/O bridge)			5.25	5.25	5.5	
SLT ECHO	Echo Creek			5.5			
SLT EDGE -00	Edgewood Creek at mouth	8.5		7.5	7	8	
SLT EDGE -01	Edgewood Creek abv Hwy 50					7.5	
SLT ELKS -01	Upper Truckee at Elks Club	7.06	6.5				5.3
SLT FLLF	Fallen Leaf Lake	7		-	7.33	7	6.71
SLT GLNA -00	Glen Alpine Creek at mouth	7	6.1	7.01	7.42	7.1	7.06
SLT HEAV1 -00	Heavenly Creek nr confluence @ Trout Creek				5	5	6
SLT HEAV2 -01	Heavenly Creek upstream Pioneer Trail		6.5	5.75	5	5.5	
SLT KEYS -00	Tahoe Keys Lagoon (West Channel)	8.4		8.1	9.05	9.1	8
SLT LGCR -00	Lonely Gulch Creek at mouth		7	5.25	5.5		
SLT LINC -00	Lincoln Creek at Mouth			7		6	
SLT MARL -00	Marlette Creek at mouth	7	7		6.25		
SLT MARL -01	Marlette Creek above Hwy 28						
SLT MCFA -00	McFaul Creek at mouth			7	5.625	6.5	6
SLT MCFA -01	McFaul Creek at Hwy 50					6.2	
SLT MEEK -00	Meeks Creek at mouth	7		5.5	5.5	5.5	6.5
SLT MOSH -01	Upper Truckee River	7		5.5	—		
SLT NZHR -00	North Zephyr Creek at mouth		6.5	7	5.5	5.5	5.5
SLT RBCN -00	Rubicon Creek at mouth			5.5	5.625		
SLT SAXN -00	Saxon Creek at confluence w/ Trout Ck		6.5	5	5		
SLT SIDE -01	Upper Truckee River - Side Channel		7	5.5	---		
SLT SZHR -00	South Zephyr Creek at mouth			7	—		
SLT SZHR -01	Lower Zephyr Creek, upstream of bridge						6
SLT TALL -00	Tallac Creek at mouth			5		7	5.5 - 6
SLT TALR -00	Taylor Creek at mouth	7.25		5		6.9	5.5
SLT TALR -01	Taylor Creek above Hwy 89	7					
SLT TCCC1	Trout Creek, behind LTCC1	7		5			
SLT TCCC2	Trout Creek, behind LTCC2	7.5		5			
SLT TRMO -00	Upper Truckee River at mouth				—		6
SLT TROU -00	Trout Creek nr confluence w/ Upper Truckee	7		5.5	---		6
SLT TROU -01	Trout Creek near Hwy 50	7					5.75
SLT XMAS -01	Xmas Creek - tributary to the Upper Truckee	7		5.5	5	5	5
Minimum		6.75	6.1	5	5	5	4.7
Maximum		8.5	8	8.1	9.05	9.1	8

pH - North Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
NLT BART -01	Barton Creek		7	8	6.625	6.6	
NLT BCDC	Burnt Cedar Creek at Lakeshore			7			
NLT BLIS -00	Bliss Creek at mouth			6.5	6.5		
NLT BLKW -00	Blackwood Creek at mouth	6.8	7	6.5	---		
NLT BONP -00	Bonpland Creek at mouth			6.5	6.5	6.5	5.5
NLT BROC -00	Brockway Creek at mouth (E/O KB boat ramp)			-	6.5	6.5	
NLT BRTN -01	Burton Creek		6.5	7	7	7	6.5
NLT CACN -03	Carnelian Canyon Creek at Hwy 28 -by minigolf		7	7	6.5		
NLT CBCR -01	Carnelian Bay Creek - at hwy culverts		6.5	6.5	---		
NLT COON -00	Culvert at Coon St. Beach ramp		7.5				
NLT DEER -02	Deer Creek abv Incline near Golf Course			7	6.5	6.5	
NLT DLRH -00	Dollar Creek at mouth	7	6.5	6.5	5	5	5
NLT FRST -00	First Creek		7	6.75	6.5		6.5
NLT GLEN -00	Glenbrook Creek at mouth				7.8	7.8	
NLT GLEN -03	Glenbrook Creek				8.1		
NLT GLENC -02	Glenbrook Creek at Old Hwy 50			-			
NLT GNRL -00	General Creek at mouth		6.1	6.5	6.5		
NLT GNRL -01	General Creek at Highway 89	7		6.5			
NLT GRIF -00	Griff Creek at mouth		7	7	6	6	6
NLT GRIF -02	Griff Creek - a/b Hwy. 28, b/l pond	7.5			6.5	6.5	
NLT HMWD -00	Homewood Creek at mouth		6.5	6.5	5.125	5.1	6.3
NLT INCL -00	Incline Creek at mouth	6.75		6	6	6	5
NLT INCL -02	Incline Creek at gage						
NLT KING -00	Kings Creek				6.5		
NLT LHCR -00	Logan Creek at mouth		8	7.78	7.33		
NLT LHCR -02	Logan House Creek nr water tower				7.43		
NLT LKFC -00	Lake Forest Creek at mouth		7	6.5	7		6.9
NLT MADC -00	Madden Creek at mouth		6.5	6.5	6.5	6.5	6.5
NLT MILL	Mill Creek						6.4
NLT MKNY -00	McKinney Creek at mouth	7	6.6	6.5	6.5		
NLT NLHC -00	North Logan House Creek at mouth		7.8	8.04	7.42		
NLT QULC -00	Quail Creek (lake side of culvert at Hwy. 89)		6.3	6.5	5	5	6.5
NLT RSWD -01	Rosewood Creek	7	7	6.5	6.6	6.6	6.3
NLT RSWD -02	Rosewood Creek S/O Hwy. 28, D/S of golf course				6.75		
NLT SCRT -00	Secret Harbor Creek			6.5	6.5	6.5	5
NLT SECD -01	Second Creek (off Lakeshore Drive)		7	7.83	6.75		
NLT SLHO -00	Slaughter House Creek at mouth			7	7.5	7.5	5
NLT SLHO -01	Slaughter House Creek at Slaughterhouse Rd.				7.8		
NLT SNOW -00	Snow Creek, D/S of Hwy. 28		6.3	6.5	6.5	6.5	5
NLT STAR -01	Hatchery Creek nr Star Harbor	7	7	-	6.75	6.8	6.3
NLT TCSP -00	Tahoe City State Park		8	6.2			6.5
NLT TCUB -00	Tahoe Creek Urban Basin at mouth			6	5.75	5.8	6.6
NLT THRD -00	Third Creek	7	7	7	6.5	6.5	5
NLT THRD -01	Third Creek at Hwy 431		7				
NLT TUNN -00	Tunnel Creek			6.5	6.25	6.3	5.5
NLT WARD -00	Ward Creek at mouth	7		6.5	---		
NLT WARD -01	Ward Creek at Highway 89			6.5			
NLT WATS -00	Watson Creek at mouth		7	6.5	6	6	5.25
NLT WOOD -00	Wood Creek at mouth		7	6.5	7	7	6
NLT WOOD -02	Wood Creek - b/h commercial boat / auto repair shop		7	6.5	7	7	
Minimum		6.75	6.1	6	5	5	5
Maximum		7.5	8	8.04	8.1	7.8	6.9

pH - Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
TAH ESLTTL	Lake Tahoe at Thunderbird Lodge	7	7				
TAH NLAKE1	Lake Tahoe at Dollar Point		7	7.2			
TAH NLAKE2	Lake Tahoe near Sunnyside		7	7.3			
TAH NLAKE3	Lake Tahoe Near Tahoe City Outfall #65		7	7.5			
TAH NLAKE4	Lake Tahoe Near Watson Creek		7	7			
TAH NLAKE5	Lake Tahoe at Memorial Point			7	7.15		
TAH SLAKE1	Lake Tahoe inside Ski Run Marina			5.5		12	6.5
TAH SLAKE1	Lake Tahoe 2 ft. outside Ski Run Marina	7.59		5.5			6.5
TAH SLAKE1	Lake Tahoe 250 ft. outside Ski Run Marina					8	6.5
TAH SLAKE2	Lake Tahoe at Bijou Creek					7.8	
TAH SLAKE3	South Shore of Timber Cove						6
TAH SLAKE4	Lake Tahoe at Reagan Beach					11.9	6
TAH SLAKE5	South Lake at Kahle Drive				6	8	6.1
TAH SLAKE6	Lake Tahoe at Round Hill Pines					9.4	6.2
Minimum		7	7	5.5	6	7.8	6
Maximum		7.59	7	7.5	7.15	12	6.5

pH - Middle Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
MTR ALDR	Alder Creek near Emigrant trailhead		8	6.5	8.2	6.5	6
MTR BEAR	Bear Creek across from stables	7		6.5	6.375	5.5	7.5
MTR BIGC	Truckee River near Goose Meadows			6.5	8.1	4.95	7.85
MTR BOCA -00	Little Truckee River below Boca Dam			7.3	6.25	6.5	6.5
MTR BOCA -01	Little Truckee River at Boyington Mill			7	6.25	6.875	
MTR BOCA -02	Worn Mill Creek		7.5	7			5
MTR CABN	Cabin Creek		6.5	6.5	8.2		6.5
MTR COLD -00	Cold Creek near confluence with Donner Creek			7	7.5		
MTR DEEP	Deep Creek upstream of Hwy 89			6	5.625		
MTR DMCB	Davies Creek		7	7		6.9	
MTR DONN -01	Donner Creek at Hwy 89			6.5	7.7	5.5	5
MTR DONN -03	Donner Creek at Donner Lake Outlet					6	
MTR GLEN	Union Valley Creek near mouth			7	6.5	6.5	
MTR GRAY	Gray Creek			6.8	8.4	5.75	5.5
MTR I80C	Truckee River at Floriston (under I-80)		7	7	5.75		
MTR INDE	Independence Creek at dirt road crossing			6.75	7.5		
MTR MART -00	Martis Creek at mouth		6.5	6.8	5.65	7.55	7.75
MTR MART -01	Martis Creek at ACOE				6	7.4	7.5
MTR POLE	Pole Creek		7	6.5	5.5	5.5	8
MTR PROS	Prosser Creek		7.8	6.5	8	6.5	6
MTR SAGE	Sagehen Creek			6.75	5.5	6.625	6.25
MTR SILVR	Silver Creek at Hwy 89		6.5	6.7	5.5		
MTR SQCR	Squaw Creek		7	6.5	5.5	5.5	7.5
MTR TOWN	Truckee River at Truckee Regional Park			6.5	5.5	5	6.5
MTR TR01	Truckee River near Tahoe City			6.5	5.25	5.5	
MTR TROU -00	Trout Creek near mouth	7	6.5	6.5	5.25	8.05	6
MTR TROU -01	Trout Creek at I-80 undercrossing		6.5	7	6.85		
MTR TROU -02	Trout Creek Upper at Bennett Flat					6.5	6
MTR TRUC -00	Truckee River below Lake Tahoe Dam	7					
MTR ULTB	Upper Little Truckee River		8		7.25	6.5	6.25
Minimum		7	6.5	6	5.25	4.95	5
Maximum		7	8	7.3	8.4	8.05	8

pH - Lower Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
LTR ALU	Alum Creek		7	6.5		5	6.9
LTR BUL	Bull Ranch Creek			7		6	
LTR CHA -1	Chalk Creek			7	6	5.5	7.8
LTR DAV	Davis Creek		5				7.5
LTR DOG	Dog Creek		6.5	5	6		
LTR DRY	Dry Creek		7	5	5.5	6	7
LTR EVA	Evan Creek				5	7.8	7.25
LTR GAL	Galena Creek		5.6				5
LTR HUN	Hunter Creek		7.6				5
LTR IDL (Q1)	Truckee River at Idlewild Park		5				5
LTR JUM	Jumbo Creek			5			
LTR LEW	Lewer's Creek			5	4.75	5	
LTR MCR	Truckee River at McCarran Ranch						5.5
LTR MUCR	Musgrove Creek		6	4			
LTR NIXB (Q4)	Truckee River above Nixon Bridge		7.9				7.71
LTR NTD	North Truckee Drain						7
LTR PYRL	Pyramid Lake						9.22
LTR Q2	Truckee River at Glendale Park		6				
LTR Q3	Truckee River across from I-80 rest area past Vista		5				
LTR ROB	Roberts Creek			5	6	5	6.5
LTR ROC	Truckee River at Rock Park						5
LTR SMBT 1	Steamboat Creek (Near Reno)	7.25	5.5				
LTR SMBT 2	Steamboat Creek (Near Reno)	7	7				
LTR SMBT 3	Steamboat Creek (Near Reno)		8.2				
LTR STE	Steamboat Creek						5
LTR SUN	Sunrise Creek			5			
LTR THO	Thomas Creek		6		4.5	7.2	5
LTR UNN	Unnamed Creek			7.5			
LTR WADS (Q5)	Truckee River near Wadsworth Bridge		8.1	6			7.93
LTR WHI	White's Creek		6.5	5.2	4.25	5	5
LTR WHCR2.1	White's Creek		6.5				
Minimum		7	5	4	4.25	5	5
Maximum		7.25	8.2	7.5	6	7.8	9.22

Turbidity (NTU) - South Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
SLT ANG1 -01	Angora Creek - U/S of Tahoe Blvd. Bridge		0.2	0.13			
SLT ANG1 -02	Angora Creek - DS of View Circle					0.37	
SLT ANG2 -00	Angora Creek - Golf Course	1.6	0.6				
SLT ANG3 -01	Angora Creek - Washoe Meadows		0.6	0.87			
SLT BJCR -00	Bijou Creek		5.1	11.9		8.47	
SLT BJCR -01	Bijou Creek - Fairway & above			6.04		7.69	
SLT BJCR -02	Bijou Creek abv Pioneer			3.38		0.97	
SLT BPDR -00	Bijou Park Drainage			2.3		0.52	
SLT BPDR -01	Bijou Park Drainage			0.22			
SLT BPDR -02	Bijou Park Drainage b/l Hansen's Resort						
SLT BPDR -03	Bijou Park Drainage @ Verdon Drive					7.02	
SLT BURK -00	Burke Creek nr Pump St. @ end of Campgroun	4.5	0.7	0.89		0.53	
SLT BURK -01	Burke Creek at footbridge						
SLT BURK -02	Burke Creek S/O Hwy. 50						
SLT CASC -00	Cascade Creek		0.2	0.12		0.23	
SLT COLD1 -01	Cold Creek U/S of Pioneer Trail		1.9	1.91			
SLT COLD2 -01	Cold Creek b/l road	2.1	1.8	1.46			
SLT COVE -01	Tahoe Keys Marina Lagoons (East Channel)	1.5	1.2	1.35		0.86	
SLT EAGL -01	Eagle Creek (Eagle Falls loop - just S/O bridge)			0.04		0.3	
SLT ECHO	Echo Creek		0.1	0.08			
SLT EDGE -00	Edgewood Creek at mouth	2.6	1.8	2.89		1.75	
SLT EDGE -01	Edgewood Creek abv Hwy 50					1.8	
SLT ELKS -01	Upper Truckee at Elks Club	1.3	0.6				
SLT FLLF	Fallen Leaf Lake	1.1	0.1	-			
SLT GLNA -00	Glen Alpine Creek at mouth	2.8	0.1	0.16		0.57	
SLT HEAV1 -00	Heavenly Creek nr confluence @ Trout Creek		4.3			0.79	
SLT HEAV2 -01	Heavenly Creek upstream Pioneer Trail		6.8	8.05			
SLT KEYS -00	Tahoe Keys Lagoon (West Channel)	4.1	1.3	2.31		3.52	
SLT LGCR -00	Lonely Gulch Creek at mouth		0.1	0.25			
SLT LINC -00	Lincoln Creek at Mouth			13.7		1.29	
SLT MARL -00	Marlette Creek at mouth		1.4	1.3			
SLT MARL -01	Marlette Creek above Hwy 28						
SLT MCFA -00	McFaul Creek at mouth			1.63		1.1	
SLT MCFA -01	McFaul Creek at Hwy 50						
SLT MEEK -00	Meeks Creek at mouth		0.2	0.6			
SLT MOSH -01	Upper Truckee River	1.5	1.6	0.78			
SLT NZHR -00	North Zephyr Creek at mouth		1	5.13			
SLT RBCN -00	Rubicon Creek at mouth			3.13			
SLT SAXN -00	Saxon Creek at confluence w/ Trout Ck		1.1	1.36			
SLT SIDE -01	Upper Truckee River - Side Channel			0.80			
SLT SZHR -00	South Zephyr Creek at mouth		0.7	0.55			
SLT SZHR -01	Lower Zephyr Creek, upstream of bridge					0.83	
SLT TALL -00	Tallac Creek at mouth		0.3	0.79			
SLT TALR -00	Taylor Creek at mouth	3.2	0.1	0.26			
SLT TALR -01	Taylor Creek above Hwy 89	3.2					
SLT TCCC1	Trout Creek, behind LTCC1	1.6	1.9	2.16			
SLT TCCC2	Trout Creek, behind LTCC2	1.2	1.6	2.17			
SLT TRMO -00	Upper Truckee River at mouth			0.98		2.48	
SLT TROU -00	Trout Creek nr confluence w/ Upper Truckee	1.2	1.3	2.39			
SLT TROU -01	Trout Creek near Hwy 50	0.63	1.2				
SLT XMAS -01	Xmas Creek - tributary to the Upper Truckee R	1.1	0.3	0.3		3.17	
Minimum		0.63	0.1	0.04	0	0.23	0
Maximum		4.5	6.8	13.7	0	8.47	0

Turbidity (NTU) - North Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
NLT BART -01	Barton Creek		3.3	2.2	1.19		
NLT BCDC	Burnt Cedar Creek at Lakeshore			18.9			
NLT BLIS -00	Bliss Creek at mouth			1	0.17		
NLT BLKW -00	Blackwood Creek at mouth		0.6	0.3	0.63		
NLT BONP -00	Bonpland Creek at mouth			4.4	2.695	6.8	3.26
NLT BROC -00	Brockway Creek at mouth (E/O KB boat ramp)			-	5.45		
NLT BRTN -01	Burton Creek		0.9	1.4	1.095		1.77
NLT CACN -03	Carnelian Canyon Creek at Hwy 28 -by minigolf		3	5.2	6.03		
NLT CBCR -01	Carnelian Bay Creek - at hwy culverts		2.2	1.9	---		
NLT COON -00	Culvert at Coon St. Beach Ramp		1.7				
NLT DEER -02	Deer Creek abv Incline near Golf Course			4.7	3.225	6.5	
NLT DLRH -00	Dollar Creek at mouth		3.8	3.4	—		4.92
NLT FRST -00	First Creek		2.5	2.2	2.365		7.88
NLT GLEN -00	Glenbrook Creek at mouth				---		
NLT GLEN -03	Glenbrook Creek				---		
NLT GLENO -02	Glenbrook Creek at Old Hwy 50			-			
NLT GNRL -00	General Creek at mouth		1	0.8	0.475		
NLT GNRL -01	General Creek at Highway 89			0.6			
NLT GRIF -00	Griff Creek at mouth		2.8	2	2.28		7.79
NLT GRIF -02	Griff Creek - a/b Hwy. 28, b/l pond				2.53		
NLT HMWD -00	Homewood Creek at mouth		0.6	0.4	0.665		1.08
NLT INCL -00	Incline Creek at mouth		3.4	2	3.575	7.9	11
NLT INCL -02	Incline Creek at gage						
NLT KING -00	Kings Creek				2.715		6.14
NLT LHCR -00	Logan Creek at mouth		0.8	1.1	1.76		
NLT LHCR -02	Logan House Creek nr water tower				1.16		
NLT LKFC -00	Lake Forest Creek at mouth		1.8	1.2	3.31		2.24
NLT MADC -00	Madden Creek at mouth		0.4	0.3	0.66		1.62
NLT MILL	Mill Creek						5.05
NLT MKNY -00	McKinney Creek at mouth		1	0.3	0.685		
NLT NLHC -00	North Logan House Creek at mouth		2.7	3.5	3.16		
NLT QULC -00	Quail Creek (lake side of culvert at Hwy. 89)		0.4	0.5	1.005		1.66
NLT RSWD -01	Rosewood Creek		2.2	3.2	4.005	5.4	4.31
NLT RSWD -02	Rosewood Creek S/O Hwy. 28, D/S of golf course				1.735		
NLT SCRT -00	Secret Harbor Creek			1.8	2.39		1.86
NLT SECD -01	Second Creek (off Lakeshore Drive)		3.1	2.7	4.895		
NLT SLHO -00	Slaughter House Creek at mouth			-	6.47	2.3	5.22
NLT SLHO -01	Slaughter House Creek at Slaughterhouse Rd.				---		
NLT SNOW -00	Snow Creek, D/S of Hwy. 28		6.1	4.9	3.68		6.43
NLT STAR -01	Hatchery Creek nr Star Harbor		2.4	3	2.3		1.8
NLT TCSP -00	Tahoe City State Park		3.2	3.3			
NLT TCUB -00	Tahoe Creek Urban Basin at mouth			4.9	8.97		7.28
NLT THRD -00	Third Creek		1.8	2.4	2.29	10.4	6.77
NLT THRD -01	Third Creek at Hwy 431		0.9				
NLT TUNN -00	Tunnel Creek		0.3	0.2	0.54	0.3	
NLT WARD -00	Ward Creek at mouth			0.3	0.665		
NLT WARD -01	Ward Creek at Highway 89			0.3			
NLT WATS -00	Watson Creek at mouth		1	1.8	2.26		4.6
NLT WOOD -00	Wood Creek at mouth		2	1.8	4.575	13.6	15.3
NLT WOOD -02	Wood Creek - b/h commercial boat / auto repair shop		3.1	-	2.005		
Minimum			0.3	0.2	0.17	0.3	1.08
Maximum			6.1	18.9	8.97	13.6	15.3

Turbidity (NTU) - Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
TAH ESLTTL	Lake Tahoe at Thunderbird Lodge		0.25				
TAH NLAKE1	Lake Tahoe at Dollar Point		0.2	0.2			
TAH NLAKE2	Lake Tahoe near Sunnyside		0.4	0.2			
TAH NLAKE3	Lake Tahoe Near Tahoe City Outfall #65		0.3	0.2			
TAH NLAKE4	Lake Tahoe Near Watson Creek		0.3	0.2			
TAH NLAKE5	Lake Tahoe at Memorial Point				1.18		
TAH SLAKE1	Lake Tahoe inside Ski Run Marina						
TAH SLAKE1	Lake Tahoe 2 ft. outside Ski Run Marina	2.3					
TAH SLAKE1	Lake Tahoe 250 ft. outside Ski Run Marina						
TAH SLAKE2	Lake Tahoe at Bijou Creek						
TAH SLAKE3	South Shore of Timber Cove						
TAH SLAKE4	Lake Tahoe at Reagan Beach					18.7	
TAH SLAKE5	South Lake at Kahle Drive				2.13	0.58	
TAH SLAKE6	Lake Tahoe at Round Hill Pines					0.19	
Minimum		2.3	0.2	0.2	1.18	0.19	
Maximum		2.3	0.4	0.2	2.13	18.7	

Turbidity (NTU) - Middle Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
MTR ALDR	Alder Creek near Emigrant trailhead		1.65	2.35	1.075	5.26	0.89
MTR BEAR	Bear Creek across from stables		0.4	0.78	0.365	2.49	0.095
MTR BIGC	Truckee River near Goose Meadows			1.02	0.495	4.785	0
MTR BOCA -00	Little Truckee River below Boca Dam			2.1	2.255	11.42	1.535
MTR BOCA -01	Little Truckee River at Boyington Mill			1.21	1.205	1.08	
MTR BOCA -02	Worn Mill Creek		1.15	1.61			
MTR CABN	Cabin Creek		0.65	1.2	0.38		0
MTR COLD -00	Cold Creek near confluence with Donner Creek		0.5	0.59	0.42		
MTR DEEP	Deep Creek upstream of Hwy 89			1.34	0.655		
MTR DMCB	Davies Creek		2.3	2.53			0.885
MTR DONN -01	Donner Creek at Hwy 89		0.5	0.96	0.455	8.96	7.135
MTR DONN -03	Donner Creek at Donner Lake Outlet					0.49	0
MTR GLEN	Union Valley Creek near mouth			1.83	1.18	3.85	
MTR GRAY	Gray Creek			1.3	4.235	48.295	38.275
MTR I80C	Truckee River at Floriston (under I-80)		1.7	1.94	1.81		
MTR INDE	Independence Creek at dirt road crossing		0.7	1.83	0.84		
MTR MART -00	Martis Creek at mouth		2.3	2.74	1.68	6.18	2.825
MTR MART -01	Martis Creek at ACOE				0.75	5.34	0.99
MTR POLE	Pole Creek		0.6	1.36	1.01	8.14	7.915
MTR PROS	Prosser Creek		1.35	1.33	0.785	13.79	5.83
MTR SAGE	Sagehen Creek			2.4	1.13	1.85	0.53
MTR SILVR	Silver Creek at Hwy 89		1.6	1.92	0.925		
MTR SQCR	Squaw Creek		0.65	0.94	0.545	9.79	3.475
MTR TOWN	Truckee River at Truckee Regional Park			1.09	1.17	9.005	6.225
MTR TR01	Truckee River near Tahoe City		0.4	1.01	0.355	0.575	
MTR TROU -00	Trout Creek near mouth		1.4	1.82	2.48	1.955	0
MTR TROU -01	Trout Creek at I-80 undercrossing		1	1.49	1.375		
MTR TROU -02	Trout Creek Upper at Bennett Flat					0.73	0
MTR TRUC -00	Truckee River below Lake Tahoe Dam		0.4				
MTR ULTB	Upper Little Truckee River		1.05		0.595	4.375	1.845
Minimum			0.4	0.59	0.355	0.49	0
Maximum			2.3	2.74	4.235	48.295	38.275

Turbidity (NTU) - Lower Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
LTR ALU	Alum Creek		5	9.9		12.5	24
LTR BUL	Bull Ranch Creek			1.6		3	
LTR CHA -1	Chalk Creek			1.0	1.46	1	18.7
LTR DAV	Davis Creek		1				5.59
LTR DOG	Dog Creek		1	1.5			
LTR DRY	Dry Creek		6	15.0	10.3	15	12
LTR EVA	Evan Creek				8.07	15	20
LTR GAL	Galena Creek		2				5.58
LTR HUN	Hunter Creek		3				104
LTR IDL (Q1)	Truckee River at Idlewild Park		6				20
LTR JUM	Jumbo Creek			4.5			
LTR LEW	Lewer's Creek			3.2	4.6	3.5	
LTR MCR	Truckee River at McCarran Ranch						36.9
LTR MUCR	Musgrove Creek		2	4.5			
LTR NIXB (Q4)	Truckee River above Nixon Bridge		6				43.8
LTR NTD	North Truckee Drain						14.2
LTR PYRL	Pyramid Lake						24.4
LTR Q2	Truckee River at Glendale Park		9				
LTR Q3	Truckee River across from I-80 rest area past Vista						
LTR ROB	Roberts Creek			7.7	8.5	3	16.9
LTR ROC	Truckee River at Rock Park						25.2
LTR SMBT 1	Steamboat Creek (Near Reno)		2				
LTR SMBT 2	Steamboat Creek (Near Reno)		3				
LTR SMBT 3	Steamboat Creek (Near Reno)		12				
LTR STE	Steamboat Creek						26.6
LTR SUN	Sunrise Creek			1.5			
LTR THO	Thomas Creek		5	-	9.9	4.5	27.9
LTR UNN	Unnamed Creek			2.3			
LTR WADS (Q5)	Truckee River near Wadsworth Bridge		7				32.1
LTR WHI	White's Creek		3	8	14.2	28	55.4
LTR WHCR2.1	White's Creek		1				
Minimum			1	1.01	1.46	1	5.58
Maximum			12	15	14.2	28	104

Coliform (# colonies/100ml) - South Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
SLT ANG1 -01	Angora Creek - U/S of Tahoe Blvd. Bridge			-			
SLT ANG2 -00	Angora Creek - Golf Course	16	2	-			
SLT ANG3 -01	Angora Creek - Washoe Meadows		2	0			
SLT BJCR -00	Bijou Creek			34			15
SLT BJCR -01	Bijou Creek - Fairway & above			29			
SLT BJCR -02	Bijou Creek abv Pioneer			-			
SLT BPDR -00	Bijou Park Drainage			4			
SLT BPDR -01	Bijou Park Drainage			-			37
SLT BPDR -02	Bijou Park Drainage b/l Hansen's Resort						
SLT BPDR -03	Bijou Park Drainage @ Verdon Drive						
SLT BURK -00	Burke Creek nr Pump St. @ end of Campground Rd.			19		40	59
SLT BURK -01	Burke Creek at footbridge						
SLT BURK -02	Burke Creek S/O Hwy. 50		11				
SLT CASC -00	Cascade Creek			0			
SLT COLD1 -01	Cold Creek U/S of Pioneer Trail		2	-			
SLT COLD2 -01	Cold Creek b/l road		0	-			
SLT COVE -01	Tahoe Keys Marina Lagoons (East Channel)	12	0	0		6	
SLT EAGL -01	Eagle Creek (Eagle Falls loop - just S/O bridge)			-			
SLT ECHO	Echo Creek			-			
SLT EDGE -00	Edgewood Creek at mouth	474	0	0		8	
SLT ELKS -01	Upper Truckee at Elks Club		1				
SLT FLLF	Fallen Leaf Lake	0	0	-		<1	
SLT GLNA -00	Glen Alpine Creek at mouth		0	-		<1	
SLT HEAV1 -00	Heavenly Creek nr confluence @ Trout Creek		0			14	
SLT HEAV2 -01	Heavenly Creek upstream Pioneer Trail		0	1			
SLT KEYS -00	Tahoe Keys Lagoon (West Channel)	1	11	0			
SLT LGCR -00	Lonely Gulch Creek at mouth			-			
SLT LINC -00	Lincoln Creek at Mouth			-			
SLT MARL -00	Marlette Creek at mouth		0	-			
SLT MARL -01	Marlette Creek above Hwy 28						
SLT MCFA -00	McFaul Creek at mouth			2		3	7
SLT MCFA -01	McFaul Creek at Hwy 50					<1	160
SLT MEEK -00	Meeks Creek at mouth		0	1			
SLT MOSH -01	Upper Truckee River	14		3			
SLT NZHR -00	North Zephyr Creek at mouth			-			
SLT RBCN -00	Rubicon Creek at mouth			-			
SLT SAXN -00	Saxon Creek at confluence w/ Trout Ck			-			
SLT SIDE -01	Upper Truckee River - Side Channel			0			
SLT SZHR -00	South Zephyr Creek at mouth			16		27	
SLT SZHR -01	Lower Zephyr Creek, upstream of bridge						
SLT TALL -00	Tallac Creek at mouth		0	-			
SLT TALR -00	Taylor Creek at mouth		0	-			11
SLT TALR -01	Taylor Creek above Hwy 89						
SLT TCCC1	Trout Creek, behind LTCC1		3	-			
SLT TCCC2	Trout Creek, behind LTCC2			-			
SLT TRMO -00	Upper Truckee River at mouth			-			
SLT TROU -00	Trout Creek nr confluence w/ Upper Truckee			-			13
SLT TROU -01	Trout Creek near Hwy 50						17
SLT XMAS -01	Xmas Creek - tributary to the Upper Truckee River		0	0		<1	
Minimum		0	0	0	0	3	7
Maximum		474	11	34	0	40	160

Coliform (# colonies/100ml) - North Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
NLT BART -01	Barton Creek			-		<1	
NLT BCDC	Burnt Cedar Creek at Lakeshore			-			
NLT BLIS -00	Bliss Creek at mouth			-			
NLT BLKW -00	Blackwood Creek at mouth	0	0	-			
NLT BONP -00	Bonpland Creek at mouth			-			
NLT BROC -00	Brockway Creek at mouth (E/O KB boat ramp)			-			
NLT BRTN -01	Burton Creek		0	1		<1	
NLT CACN -03	Carnelian Canyon Creek at Hwy 28 -by minigolf		11	-			
NLT CBCR -01	Carnelian Bay Creek - at hwy culverts			-			
NLT COON -00	Culvert at Coon St. Beach ramp						
NLT DEER -02	Deer Creek abv Incline near Golf Course			-			
NLT DLRH -00	Dollar Creek at mouth	0	2	-			
NLT FRST -00	First Creek			-			
NLT GLEN -00	Glenbrook Creek at mouth					8	
NLT GLEN -03	Glenbrook Creek						
NLT GLENO -02	Glenbrook Creek at Old Hwy 50			-			
NLT GNRL -00	General Creek at mouth		0	-			
NLT GNRL -01	General Creek at Highway 89			-			
NLT GRIF -00	Griff Creek at mouth			-			3
NLT GRIF -02	Griff Creek - a/b Hwy. 28, b/l pond						
NLT HMWD -00	Homewood Creek at mouth			-			
NLT INCL -00	Incline Creek at mouth			-			
NLT INCL -02	Incline Creek at gage						
NLT KING -00	Kings Creek						
NLT LHCR -00	Logan Creek at mouth			-			
NLT LHCR -02	Logan House Creek nr water tower						
NLT LKFC -00	Lake Forest Creek at mouth		6	20		53	3
NLT MADC -00	Madden Creek at mouth			-			
NLT MILL	Mill Creek						
NLT MKNY -00	McKinney Creek at mouth			-			
NLT NLHC -00	North Logan House Creek at mouth			-			
NLT QULC -00	Quail Creek (lake side of culvert at Hwy. 89)			-			<1
NLT RSWD -01	Rosewood Creek		9	-			
NLT RSWD -02	Rosewood Creek S/O Hwy. 28, D/S of golf course						
NLT SCRT -00	Secret Harbor Creek			-			
NLT SECD -01	Second Creek (off Lakeshore Drive)			-			
NLT SLHO -00	Slaughter House Creek at mouth			0		1	32
NLT SLHO -01	Slaughter House Creek at Slaughterhouse Rd.						
NLT SNOW -00	Snow Creek, D/S of Hwy. 28		3	0			
NLT STAR -01	Hatchery Creek nr Star Harbor	706		2		<1	7
NLT TCSP -00	Tahoe City State Park		1	0			38
NLT TCUB -00	Tahoe Creek Urban Basin at mouth			2		6	60
NLT THRD -00	Third Creek			-			
NLT THRD -01	Third Creek at Hwy 431						
NLT TUNN -00	Tunnel Creek			-			
NLT WARD -00	Ward Creek at mouth	0		-			
NLT WARD -01	Ward Creek at Highway 89			-			
NLT WATS -00	Watson Creek at mouth			-			
NLT WOOD -00	Wood Creek at mouth			-			
NLT WOOD -02	Wood Creek - b/h commercial boat / auto repair shop			-			
Minimum		0	0	0	0	1	3
Maximum		706	11	20	0	53	60

Coliform (# colonies/100ml) - Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
TAH ESLTTL	Lake Tahoe at Thunderbird Lodge						
TAH NLAKE1	Lake Tahoe at Dollar Point						
TAH NLAKE2	Lake Tahoe near Sunnyside	0					
TAH NLAKE3	Lake Tahoe Near Tahoe City Outfall #65	0		0			
TAH NLAKE4	Lake Tahoe Near Watson Creek	0					
TAH NLAKE5	Lake Tahoe at Memorial Point						
TAH SLAKE1	Lake Tahoe inside Ski Run Marina			2			
TAH SLAKE1	Lake Tahoe 2 ft. outside Ski Run Marina	134					<1
TAH SLAKE1	Lake Tahoe 250 ft. outside Ski Run Marina						
TAH SLAKE2	Lake Tahoe at Bijou Creek					1	TNTC
TAH SLAKE3	South Shore of Timber Cove						6
TAH SLAKE4	Lake Tahoe at Reagan Beach					47	11
TAH SLAKE5	South Lake at Kahle Drive					<1	
TAH SLAKE6	Lake Tahoe at Round Hill Pines					1	<1
Minimum		0		0	0	1	6
Maximum		134		2	0	47	11

TNTC = too numerous to count

Coliform (# colonies/100ml) - Middle Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
MTR ALDR	Alder Creek near Emigrant trailhead		0		1	2	
MTR BEAR	Bear Creek across from stables		0		<1	<1	
MTR BIGC	Truckee River near Goose Meadows				<1	<1	
MTR BOCA -00	Little Truckee River below Boca Dam						
MTR BOCA -01	Little Truckee River at Boyington Mill						
MTR BOCA -02	Worn Mill Creek						
MTR CABN	Cabin Creek						
MTR COLD -00	Cold Creek near confluence with Donner Creek						
MTR DEEP	Deep Creek upstream of Hwy 89						
MTR DMCB	Davies Creek		0				
MTR DONN -01	Donner Creek at Hwy 89		0		<1	6	2
MTR DONN -03	Donner Creek at Donner Lake Outlet					2	
MTR GLEN	Union Valley Creek near mouth				1	11	26
MTR GRAY	Gray Creek						
MTR I80C	Truckee River at Floriston (under I-80)		1		1		
MTR INDE	Independence Creek at dirt road crossing				<1		
MTR MART -00	Martis Creek at mouth		2			8	21
MTR MART -01	Martis Creek at ACOE				9	<1	1
MTR POLE	Pole Creek						
MTR PROS	Prosser Creek		1				
MTR SAGE	Sagehen Creek						
MTR SILVR	Silver Creek at Hwy 89		2				
MTR SQCR	Squaw Creek		0		4	1	
MTR TOWN	Truckee River at Truckee Regional Park				<1	6	
MTR TR01	Truckee River near Tahoe City				2	7	
MTR TROU -00	Trout Creek near mouth	46	1		15	<1	
MTR TROU -01	Trout Creek at I-80 undercrossing				<1		
MTR TROU -02	Trout Creek Upper at Bennett Flat					1	
MTR TRUC -00	Truckee River below Lake Tahoe Dam						
MTR ULTB	Upper Little Truckee River		1				
Minimum		46	0	0	1	1	1
Maximum		46	2	0	15	11	26

Coliform (# colonies/100ml) - Lower Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
LTR ALU	Alum Creek					>120	330
LTR BUL	Bull Ranch Creek					12	
LTR CHA -1	Chalk Creek					70	120
LTR DAV	Davis Creek						<10
LTR DOG	Dog Creek						
LTR DRY	Dry Creek					>120	>600
LTR EVA	Evan Creek					>120	>600
LTR GAL	Galena Creek						<10
LTR HUN	Hunter Creek						<10
LTR IDL (Q1)	Truckee River at Idlewild Park						20
LTR JUM	Jumbo Creek						
LTR LEW	Lewer's Creek					151	
LTR MCR	Truckee River at McCarran Ranch						
LTR MUCR	Musgrove Creek						
LTR NIXB (Q4)	Truckee River above Nixon Bridge						170
LTR NTD	North Truckee Drain						
LTR PYRL	Pyramid Lake						110
LTR Q2	Truckee River at Glendale Park						
LTR Q3	Truckee River across from I-80 rest area past Vista						
LTR ROB	Roberts Creek					30	<10
LTR ROC	Truckee River at Rock Park						530
LTR SMBT 1	Steamboat Creek (Near Reno)						
LTR SMBT 2	Steamboat Creek (Near Reno)						
LTR SMBT 3	Steamboat Creek (Near Reno)						
LTR STE	Steamboat Creek						180
LTR SUN	Sunrise Creek						
LTR THO	Thomas Creek					>120	520
LTR UNN	Unnamed Creek						
LTR WADS (Q5)	Truckee River near Wadsworth Bridge						290
LTR WHI	White's Creek					>120	300
LTR WHCR2.1	White's Creek						
Minimum						12	20
Maximum						151	530

Ammonia (ppb) - South Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
SLT ANG1 -01	Angora Creek - U/S of Tahoe Blvd. Bridge		2				2
SLT ANG2 -00	Angora Creek - Golf Course	5	5	-	3		
SLT ANG3 -01	Angora Creek - Washoe Meadows			-			2
SLT BJCR -00	Bijou Creek			42	646	307	13
SLT BJCR -01	Bijou Creek - Fairway & above			20			35
SLT BJCR -02	Bijou Creek abv Pioneer			-			
SLT BPDR -00	Bijou Park Drainage			-	4	7	
SLT BPDR -01	Bijou Park Drainage			-			9
SLT BPDR -02	Bijou Park Drainage b/l Hansen's Resort						35
SLT BPDR -03	Bijou Park Drainage @ Verdon Drive				45		42
SLT BURK -00	Burke Creek nr Pump St. @ end of Campground Rd.		2	-		3	2
SLT BURK -01	Burke Creek at footbridge	5					
SLT BURK -02	Burke Creek S/O Hwy. 50				2		
SLT CASC -00	Cascade Creek			-			
SLT COLD1 -01	Cold Creek U/S of Pioneer Trail		1	-			
SLT COLD2 -01	Cold Creek b/l road		5	-			
SLT COVE -01	Tahoe Keys Marina Lagoons (East Channel)		1	-			17
SLT EAGL -01	Eagle Creek (Eagle Falls loop - just S/O bridge)			-			
SLT ECHO	Echo Creek		0.1	-			
SLT EDGE -00	Edgewood Creek at mouth		1	-	8	6	
SLT EDGE -01	Edgewood Creek abv Hwy 50					4	
SLT ELKS -01	Upper Truckee at Elks Club	7	3				4
SLT FLLF	Fallen Leaf Lake	7	2	-			12
SLT GLNA -00	Glen Alpine Creek at mouth			-			1
SLT HEAV1 -00	Heavenly Creek nr confluence @ Trout Creek		2		2	3	3
SLT HEAV2 -01	Heavenly Creek upstream Pioneer Trail		52	-			1
SLT KEYS -00	Tahoe Keys Lagoon (West Channel)	6	2	-			6
SLT LGCR -00	Lonely Gulch Creek at mouth		1	-			
SLT LINC -00	Lincoln Creek at Mouth			-			
SLT MARL -00	Marlette Creek at mouth		4	1			
SLT MARL -01	Marlette Creek above Hwy 28	4					
SLT MCFA -00	McFaul Creek at mouth			-	2	4	12
SLT MCFA -01	McFaul Creek at Hwy 50						10
SLT MEEK -00	Meeks Creek at mouth	2	1	2		5	1
SLT MOSH -01	Upper Truckee River	2		-			
SLT NZHR -00	North Zephyr Creek at mouth			-	7		
SLT RBCN -00	Rubicon Creek at mouth			-			
SLT SAXN -00	Saxon Creek at confluence w/ Trout Ck			-			
SLT SIDE -01	Upper Truckee River - Side Channel			-			
SLT SZHR -00	South Zephyr Creek at mouth		6	-	2	6	
SLT SZHR -01	Lower Zephyr Creek, upstream of bridge						
SLT TALL -00	Tallac Creek at mouth		3	-	9	6	2
SLT TALR -00	Taylor Creek at mouth		3	-	8	5	2
SLT TALR -01	Taylor Creek above Hwy 89	11					
SLT TCCC1	Trout Creek, behind LTCC1	5		-			
SLT TCCC2	Trout Creek, behind LTCC2		1	-			
SLT TRMO -00	Upper Truckee River at mouth	3		-	2	5	12
SLT TROU -00	Trout Creek nr confluence w/ Upper Truckee			-	2		3
SLT TROU -01	Trout Creek near Hwy 50						
SLT XMAS -01	Xmas Creek - tributary to the Upper Truckee R	5	1	3			
Minimum		2	0.1	1	2	3	1
Maximum		11	52	42	646	307	42

Ammonia (ppb) - North Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
NLT BART -01	Barton Creek			1			2
NLT BCDC	Burnt Cedar Creek at Lakeshore			3			
NLT BLIS -00	Bliss Creek at mouth			2			
NLT BLKW -00	Blackwood Creek at mouth	2	4	3			
NLT BONP -00	Bonpland Creek at mouth			4	2		
NLT BROC -00	Brockway Creek at mouth (E/O KB boat ramp)			-			
NLT BRTN -01	Burton Creek	13	3	2	4		4
NLT CACN -03	Carnelian Canyon Creek at Hwy 28 -by minigolf		4	3			
NLT CBCR -01	Carnelian Bay Creek - at hwy culverts			2			
NLT COON -00	Culvert at Coon St. Beach ramp		7.5				
NLT DEER -02	Deer Creek abv Incline near Golf Course			-			
NLT DLRH -00	Dollar Creek at mouth	4	3	3	3		4
NLT FRST -00	First Creek			3			
NLT GLEN -00	Glenbrook Creek at mouth						
NLT GLEN -03	Glenbrook Creek						
NLT GLENO -02	Glenbrook Creek at Old Hwy 50			-			
NLT GNRL -00	General Creek at mouth		2	1			
NLT GNRL -01	General Creek at Highway 89	8		3			
NLT GRIF -00	Griff Creek at mouth	2	2	3	5		4
NLT GRIF -02	Griff Creek - a/b Hwy. 28, b/l pond						
NLT HMWD -00	Homewood Creek at mouth		2	3			
NLT INCL -00	Incline Creek at mouth			20			
NLT INCL -02	Incline Creek at gage	6					
NLT KING -00	Kings Creek				4		
NLT LHCR -00	Logan Creek at mouth		3	4			
NLT LHCR -02	Logan House Creek nr water tower						
NLT LKFC -00	Lake Forest Creek at mouth		4	2	10		3
NLT MADC -00	Madden Creek at mouth			4			
NLT MILL	Mill Creek						2
NLT MKNY -00	McKinney Creek at mouth	7	2	3			
NLT NLHC -00	North Logan House Creek at mouth			4			
NLT QULC -00	Quail Creek (lake side of culvert at Hwy. 89)		2	2			
NLT RSWD -01	Rosewood Creek		2	1			3
NLT RSWD -02	Rosewood Creek S/O Hwy. 28, D/S of golf cou	3					
NLT SCRT -00	Secret Harbor Creek			3	3		4
NLT SECD -01	Second Creek (off Lakeshore Drive)			2			
NLT SLHO -00	Slaughter House Creek at mouth			-	5		3
NLT SLHO -01	Slaughter House Creek at Slaughterhouse Rd.				5		
NLT SNOW -00	Snow Creek, D/S of Hwy. 28		4	-			3
NLT STAR -01	Hatchery Creek nr Star Harbor	4	6	3	6		2
NLT TCSP -00	Tahoe City State Park		13	1			
NLT TCUB -00	Tahoe Creek Urban Basin at mouth			1	4		1
NLT THRD -00	Third Creek		3	1			
NLT THRD -01	Third Creek at Hwy 431	3	0.9				
NLT TUNN -00	Tunnel Creek			3			3
NLT WARD -00	Ward Creek at mouth			1			
NLT WARD -01	Ward Creek at Highway 89	4		-			
NLT WATS -00	Watson Creek at mouth	4		2			3
NLT WOOD -00	Wood Creek at mouth			2			
NLT WOOD -02	Wood Creek - b/h commercial boat / auto repair shop			-			3
Minimum		2	0.9	1	2	0	1
Maximum		13	13	20	10	0	4

Ammonia (ppb) - Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
TAH ESLTTL	Lake Tahoe at Thunderbird Lodge	8					
TAH NLAKE1	Lake Tahoe at Dollar Point						
TAH NLAKE2	Lake Tahoe near Sunnyside	8					
TAH NLAKE3	Lake Tahoe Near Tahoe City Outfall #65	2		1			
TAH NLAKE4	Lake Tahoe Near Watson Creek	4					
TAH NLAKE5	Lake Tahoe at Memorial Point			3			
TAH SLAKE1	Lake Tahoe inside Ski Run Marina						
TAH SLAKE1	Lake Tahoe 2 ft. outside Ski Run Marina						
TAH SLAKE1	Lake Tahoe 250 ft. outside Ski Run Marina						
TAH SLAKE2	Lake Tahoe at Bijou Creek						
TAH SLAKE3	South Shore of Timber Cove						
TAH SLAKE4	Lake Tahoe at Reagan Beach						
TAH SLAKE5	South Lake at Kahle Drive						
TAH SLAKE6	Lake Tahoe at Round Hill Pines						
Minimum		2		1	0		
Maximum		8		3	0		

Ammonia (ppb) - Middle Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
MTR ALDR	Alder Creek near Emigrant trailhead		4	3	2	8	
MTR BEAR	Bear Creek across from stables	3	2	3	2	5	3
MTR BIGC	Truckee River near Goose Meadows			4	2	14	2
MTR BOCA -00	Little Truckee River below Boca Dam			3			
MTR BOCA -01	Little Truckee River at Boyington Mill				3		
MTR BOCA -02	Worn Mill Creek						
MTR CABN	Cabin Creek						
MTR COLD -00	Cold Creek near confluence with Donner Creek		3				
MTR DEEP	Deep Creek upstream of Hwy 89						
MTR DMCB	Davies Creek		3				
MTR DONN -01	Donner Creek at Hwy 89		3	3	2	4	3
MTR DONN -03	Donner Creek at Donner Lake Outlet					11	4
MTR GLEN	Union Valley Creek near mouth			4	3	3	5
MTR GRAY	Gray Creek						
MTR I80C	Truckee River at Floriston (under I-80)		4	3	2		
MTR INDE	Independence Creek at dirt road crossing						
MTR MART -00	Martis Creek at mouth		1	4	3	2	4
MTR MART -01	Martis Creek at ACOE				4	2	2
MTR POLE	Pole Creek						
MTR PROS	Prosser Creek		1				
MTR SAGE	Sagehen Creek						
MTR SILVR	Silver Creek at Hwy 89						
MTR SQCR	Squaw Creek		1	2	2	3	3
MTR TOWN	Truckee River at Truckee Regional Park			5	2	2	3
MTR TR01	Truckee River near Tahoe City				2	3	
MTR TROU -00	Trout Creek near mouth	3	2	4	2	5	
MTR TROU -01	Trout Creek at I-80 undercrossing		3	4	2		
MTR TROU -02	Trout Creek Upper at Bennett Flat					3	
MTR TRUC -00	Truckee River below Lake Tahoe Dam	21	3				
MTR ULTB	Upper Little Truckee River		3				
Minimum		3	1	2	2	2	2
Maximum		21	4	5	4	14	5

Ammonia (ppb) - Lower Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
LTR ALU	Alum Creek		ND	30		70	
LTR BUL	Bull Ranch Creek			20		0	
LTR CHA -1	Chalk Creek			30	ND	0	
LTR DAV	Davis Creek		ND				
LTR DOG	Dog Creek		ND	30			
LTR DRY	Dry Creek			20	110	30	
LTR EVA	Evan Creek				ND	20	
LTR GAL	Galena Creek		ND				
LTR HUN	Hunter Creek		ND				
LTR IDL (Q1)	Truckee River at Idlewild Park		ND				ND
LTR JUM	Jumbo Creek			30			
LTR LEW	Lewer's Creek			20	ND	0	
LTR MCR	Truckee River at McCarran Ranch						ND
LTR MUCR	Musgrove Creek		25	30			
LTR NIXB (Q4)	Truckee River above Nixon Bridge		8				ND
LTR NTD	North Truckee Drain						
LTR PYRL	Pyramid Lake						ND
LTR Q2	Truckee River at Glendale Park		27				
LTR Q3	Truckee River across from I-80 rest area past Vista		47				
LTR ROB	Roberts Creek			20	ND	0	
LTR ROC	Truckee River at Rock Park						ND
LTR SMBT 1	Steamboat Creek (Near Reno)		ND				
LTR SMBT 2	Steamboat Creek (Near Reno)		ND				
LTR SMBT 3	Steamboat Creek (Near Reno)		6				
LTR STE	Steamboat Creek						
LTR SUN	Sunrise Creek						
LTR THO	Thomas Creek		ND	20	ND	20	
LTR UNN	Unnamed Creek			20			
LTR WADS (Q5)	Truckee River near Wadsworth Bridge		ND				ND
LTR WHI	White's Creek		ND	20	ND	0	
LTR WHCR2.1	White's Creek		ND				
Minimum		0	ND	20	110	0	0
Maximum		0	47	30	110	70	0

Note: for LTR sites, ND = <100 ppb

Nitrate (ppb) - South Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
SLT ANG1 -01	Angora Creek - U/S of Tahoe Blvd. Bridge		4	-			1
SLT ANG2 -00	Angora Creek - Golf Course	4	5	-	2		
SLT ANG3 -01	Angora Creek - Washoe Meadows			-			1
SLT BJCR -00	Bijou Creek			28	311	55	4
SLT BJCR -01	Bijou Creek - Fairway & above			19			8
SLT BJCR -02	Bijou Creek abv Pioneer			-			
SLT BPDR -00	Bijou Park Drainage			-	42	76	
SLT BPDR -01	Bijou Park Drainage			-			2
SLT BPDR -02	Bijou Park Drainage b/l Hansen's Resort						239
SLT BPDR -03	Bijou Park Drainage @ Verdon Drive				283		334
SLT BURK -00	Burke Creek nr Pump St. @ end of Campground Rd.		3	-	5	2	1
SLT BURK -01	Burke Creek at footbridge	14					
SLT BURK -02	Burke Creek S/O Hwy. 50						
SLT CASC -00	Cascade Creek			-			
SLT COLD1 -01	Cold Creek U/S of Pioneer Trail		24	-			
SLT COLD2 -01	Cold Creek b/l road		22	-			
SLT COVE -01	Tahoe Keys Marina Lagoons (East Channel)		3	-			6
SLT EAGL -01	Eagle Creek (Eagle Falls loop - just S/O bridge)			-			
SLT ECHO	Echo Creek		0.1	-			
SLT EDGE -00	Edgewood Creek at mouth		2	-	3	42	
SLT EDGE -01	Edgewood Creek at Hwy 50					142	
SLT ELKS -01	Upper Truckee at Elks Club	7	13				11
SLT FLLF	Fallen Leaf Lake	1	2	-			1
SLT GLNA -00	Glen Alpine Creek at mouth			-			26
SLT HEAV1 -00	Heavenly Creek nr confluence @ Trout Creek		4		2	11	7
SLT HEAV2 -01	Heavenly Creek upstream Pioneer Trail		403	-			5
SLT KEYS -00	Tahoe Keys Lagoon (West Channel)	1	1	-			2
SLT LGCR -00	Lonely Gulch Creek at mouth			-			
SLT LINC -00	Lincoln Creek at Mouth			-			
SLT MARL -00	Marlette Creek at mouth		25	9			
SLT MARL -01	Marlette Creek above Hwy 28	8					
SLT MCFA -00	McFaul Creek at mouth			-	1	5	4
SLT MCFA -01	McFaul Creek at Hwy 50						4
SLT MEEK -00	Meeks Creek at mouth	1	4	4	1	5	1
SLT MOSH -01	Upper Truckee River	15		-			
SLT NZHR -00	North Zephyr Creek at mouth			-	11		
SLT RBCN -00	Rubicon Creek at mouth			-			
SLT SAXN -00	Saxon Creek at confluence w/ Trout Ck			-			
SLT SIDE -01	Upper Truckee River - Side Channel			-			
SLT SZHR -00	South Zephyr Creek at mouth		4	-	1	39	
SLT SZHR -01	Lower Zephyr Creek, upstream of bridge						
SLT TALL -00	Tallac Creek at mouth		7	-	2	3	1
SLT TALR -00	Taylor Creek at mouth		7	-	1	2	1
SLT TALR -01	Taylor Creek above Hwy 89	34					
SLT TCCC1	Trout Creek, behind LTCC1			-			
SLT TCCC2	Trout Creek, behind LTCC2		8	-			
SLT TRMO -00	Upper Truckee River at mouth	15		-	9	35	1
SLT TROU -00	Trout Creek nr confluence w/ Upper Truckee	11		-	5		1
SLT TROU -01	Trout Creek near Hwy 50						
SLT XMAS -01	Xmas Creek - tributary to the Upper Truckee Ri	12	12	7			
Minimum		1	0.1	4	1	2	1
Maximum		34	403	28	311	142	334

Nitrate (ppb) - North Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
NLT BART -01	Barton Creek			9			3
NLT BCDC	Burnt Cedar Creek at Lakeshore			2			
NLT BLIS -00	Bliss Creek at mouth			5			
NLT BLKW -00	Blackwood Creek at mouth	6	36	8			
NLT BONP -00	Bonpland Creek at mouth			45	13	32	
NLT BROC -00	Brockway Creek at mouth (E/O KB boat ramp)			-			
NLT BRTN -01	Burton Creek	1	2	3	1	3	2
NLT CACN -03	Carnelian Canyon Creek at Hwy 28 -by minigolf		2	6			
NLT CBCR -01	Carnelian Bay Creek - at hwy culverts			1			
NLT COON -00	Culvert at Coon St. Beach ramp		7.5				
NLT DEER -02	Deer Creek abv Incline near Golf Course			-			
NLT DLRH -00	Dollar Creek at mouth	29	5	4	6	5	2
NLT FRST -00	First Creek			4			
NLT GLEN -00	Glenbrook Creek at mouth		6				
NLT GLEN -03	Glenbrook Creek						
NLT GLENC -02	Glenbrook Creek at Old Hwy 50			-			
NLT GNRL -00	General Creek at mouth			5			
NLT GNRL -01	General Creek at Highway 89	6		5			
NLT GRIF -00	Griff Creek at mouth	7	4	4	2	6	4
NLT GRIF -02	Griff Creek - a/b Hwy. 28, b/l pond						
NLT HMWD -00	Homewood Creek at mouth		18	8			
NLT INCL -00	Incline Creek at mouth			5			
NLT INCL -02	Incline Creek at gage	26					
NLT KING -00	Kings Creek				2		
NLT LHCR -00	Logan Creek at mouth		17	15			
NLT LHCR -02	Logan House Creek nr water tower						
NLT LKFC -00	Lake Forest Creek at mouth		21	11	20	19	3
NLT MADC -00	Madden Creek at mouth			14			
NLT MILL	Mill Creek						2
NLT MKNY -00	McKinney Creek at mouth	33	50	52			
NLT NLHC -00	North Logan House Creek at mouth			60			
NLT QULC -00	Quail Creek (lake side of culvert at Hwy. 89)		63	49			
NLT RSWD -01	Rosewood Creek		6	20		5	2
NLT RSWD -02	Rosewood Creek S/O Hwy. 28, D/S of golf cour	5					
NLT SCRT -00	Secret Harbor Creek			45	46	4	6
NLT SECD -01	Second Creek (off Lakeshore Drive)			3			
NLT SLHO -00	Slaughter House Creek at mouth			-	3		2
NLT SLHO -01	Slaughter House Creek at Slaughterhouse Rd.				3		
NLT SNOW -00	Snow Creek, D/S of Hwy. 28		3	-		3	2
NLT STAR -01	Hatchery Creek nr Star Harbor	1	4	3	1		1
NLT TCSP -00	Tahoe City State Park		259	1556		855	
NLT TCUB -00	Tahoe Creek Urban Basin at mouth			150	39	125	54
NLT THRD -00	Third Creek		6	3			
NLT THRD -01	Third Creek at Hwy 431	4	0.9				
NLT TUNN -00	Tunnel Creek			2			1
NLT WARD -00	Ward Creek at mouth			2			
NLT WARD -01	Ward Creek at Highway 89	1		-			
NLT WATS -00	Watson Creek at mouth	0		5		8	4
NLT WOOD -00	Wood Creek at mouth			3			
NLT WOOD -02	Wood Creek - b/h commercial boat / auto repair shop			-		21	15
Minimum		0	0.9	1	1	3	1
Maximum		33	259	1556	46	855	54

Nitrate (ppb) - Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
TAH ESLTTL	Lake Tahoe at Thunderbird Lodge	1					
TAH NLAKE1	Lake Tahoe at Dollar Point						
TAH NLAKE2	Lake Tahoe near Sunnyside	1					
TAH NLAKE3	Lake Tahoe Near Tahoe City Outfall #65	1		7			
TAH NLAKE4	Lake Tahoe Near Watson Creek	0					
TAH NLAKE5	Lake Tahoe at Memorial Point			3			
TAH SLAKE1	Lake Tahoe inside Ski Run Marina						
TAH SLAKE1	Lake Tahoe 2 ft. outside Ski Run Marina						
TAH SLAKE1	Lake Tahoe 250 ft. outside Ski Run Marina						
TAH SLAKE2	Lake Tahoe at Bijou Creek						
TAH SLAKE3	South Shore of Timber Cove						
TAH SLAKE4	Lake Tahoe at Reagan Beach						
TAH SLAKE5	South Lake at Kahle Drive						
TAH SLAKE6	Lake Tahoe at Round Hill Pines						
Minimum		0		3	0		
Maximum		1		7	0		

Nitrate (ppb) - Middle Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
MTR ALDR	Alder Creek near Emigrant trailhead		37	13	3	117	
MTR BEAR	Bear Creek across from stables	2	58	7	7	55	17
MTR BIGC	Truckee River near Goose Meadows			8	7	14	11
MTR BOCA -00	Little Truckee River below Boca Dam			3			
MTR BOCA -01	Little Truckee River at Boyington Mill				1		
MTR BOCA -02	Worn Mill Creek						
MTR CABN	Cabin Creek						
MTR COLD -00	Cold Creek near confluence with Donner Creek		7				
MTR DEEP	Deep Creek upstream of Hwy 89						
MTR DMCB	Davies Creek		2				
MTR DONN -01	Donner Creek at Hwy 89		8	15	4	8	7
MTR DONN -03	Donner Creek at Donner Lake Outlet					1	1
MTR GLEN	Union Valley Creek near mouth			23	1224	15	94
MTR GRAY	Gray Creek						
MTR I80C	Truckee River at Floriston (under I-80)		10	12	2		
MTR INDE	Independence Creek at dirt road crossing						
MTR MART -00	Martis Creek at mouth		9	3	1	11	2
MTR MART -01	Martis Creek at ACOE				27	17	6
MTR POLE	Pole Creek						
MTR PROS	Prosser Creek		9				
MTR SAGE	Sagehen Creek						
MTR SILVR	Silver Creek at Hwy 89						
MTR SQCR	Squaw Creek		113	54	38	121	29
MTR TOWN	Truckee River at Truckee Regional Park			16	1	29	11
MTR TR01	Truckee River near Tahoe City				<1	2	
MTR TROU -00	Trout Creek near mouth	2	2	3	2	2	
MTR TROU -01	Trout Creek at I-80 undercrossing		8	3	2		
MTR TROU -02	Trout Creek Upper at Bennett Flat					4	
MTR TRUC -00	Truckee River below Lake Tahoe Dam	2	2				
MTR ULTB	Upper Little Truckee River		8				
Minimum		2	2	3	1	1	1
Maximum		2	113	54	1224	121	94

Nitrate (ppb) - Lower Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
LTR ALU	Alum Creek		0	5		55	
LTR BUL	Bull Ranch Creek			5		9	
LTR CHA -1	Chalk Creek			724	180	1530	
LTR DAV	Davis Creek		27				
LTR DOG	Dog Creek		22	5			
LTR DRY	Dry Creek			245	511	1100	
LTR EVA	Evan Creek				475	242	
LTR GAL	Galena Creek		17				
LTR HUN	Hunter Creek		17				
LTR IDL (Q1)	Truckee River at Idlewild Park		ND				ND
LTR JUM	Jumbo Creek			5			
LTR LEW	Lewer's Creek			5	42	64	
LTR MCR	Truckee River at McCarran Ranch						ND
LTR MUCR	Musgrove Creek		ND	21			
LTR NIXB (Q4)	Truckee River above Nixon Bridge		29				ND
LTR NTD	North Truckee Drain						
LTR PYRL	Pyramid Lake						ND
LTR Q2	Truckee River at Glendale Park		26				
LTR Q3	Truckee River across from I-80 rest area past Vista		11				
LTR ROB	Roberts Creek			15	171	7	
LTR ROC	Truckee River at Rock Park						ND
LTR SMBT 1	Steamboat Creek (Near Reno)	9	65				
LTR SMBT 2	Steamboat Creek (Near Reno)	13	17				
LTR SMBT 3	Steamboat Creek (Near Reno)		508				
LTR STE	Steamboat Creek						
LTR SUN	Sunrise Creek						
LTR THO	Thomas Creek		40	164	170	128	
LTR UNN	Unnamed Creek			5			
LTR WADS (Q5)	Truckee River near Wadsworth Bridge		21				ND
LTR WHI	White's Creek		17	13	7	22	
LTR WHCR2.1	White's Creek		6				
Minimum		9	0	5	7	7	0
Maximum		13	508	724	511	1530	0

(ND= <0.1 ppm, or <100 ppb)

Soluble Reactive Phosphorus (ppb) - South Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
SLT ANG1 -01	Angora Creek - U/S of Tahoe Blvd. Bridge		1	-			2
SLT ANG2 -00	Angora Creek - Golf Course	10	3	-	5		
SLT ANG3 -01	Angora Creek - Washoe Meadows			-			6
SLT BJCR -00	Bijou Creek			28	5	79	51
SLT BJCR -01	Bijou Creek - Fairway & above			20			6
SLT BJCR -02	Bijou Creek abv Pioneer			-			
SLT BPDR -00	Bijou Park Drainage			-	16	20	
SLT BPDR -01	Bijou Park Drainage			-			14
SLT BPDR -02	Bijou Park Drainage b/l Hansen's Resort						24
SLT BPDR -03	Bijou Park Drainage @ Verdon Drive				12		29
SLT BURK -00	Burke Creek nr Pump St. @ end of Campground Rd.		3	-	2	3	8
SLT BURK -01	Burke Creek at footbridge	5					
SLT BURK -02	Burke Creek S/O Hwy. 50						
SLT CASC -00	Cascade Creek			-			
SLT COLD1 -01	Cold Creek U/S of Pioneer Trail		7	-			
SLT COLD2 -01	Cold Creek b/l road		11	-			
SLT COVE -01	Tahoe Keys Marina Lagoons (East Channel)		1	-			5
SLT EAGL -01	Eagle Creek (Eagle Falls loop - just S/O bridge)			-			
SLT ECHO	Echo Creek		0.1	-			
SLT EDGE -00	Edgewood Creek at mouth		4	-	8	3	
SLT EDGE -01	Edgewood Creek abv Hwy 50					6	
SLT ELKS -01	Upper Truckee at Elks Club	4	1				2
SLT FLLF	Fallen Leaf Lake	0	1	-			1
SLT GLNA -00	Glen Alpine Creek at mouth			-			1
SLT HEAV1 -00	Heavenly Creek nr confluence @ Trout Creek		11		15	14	16
SLT HEAV2 -01	Heavenly Creek upstream Pioneer Trail		19	-			15
SLT KEYS -00	Tahoe Keys Lagoon (West Channel)	1	1	-			3
SLT LGCR -00	Lonely Gulch Creek at mouth			-			
SLT LINC -00	Lincoln Creek at Mouth			-			
SLT MARL -00	Marlette Creek at mouth		9	4			
SLT MARL -01	Marlette Creek above Hwy 28	13					
SLT MCFA -00	McFaul Creek at mouth			-	9	4	8
SLT MCFA -01	McFaul Creek at Hwy 50						18
SLT MEEK -00	Meeks Creek at mouth	1	1	3	<1	1	2
SLT MOSH -01	Upper Truckee River	4		-			
SLT NZHR -00	North Zephyr Creek at mouth			-	4		
SLT RBCN -00	Rubicon Creek at mouth			-			
SLT SAXN -00	Saxon Creek at confluence w/ Trout Ck			-			
SLT SIDE -01	Upper Truckee River - Side Channel			-			
SLT SZHR -00	South Zephyr Creek at mouth		6	-	6	3	
SLT SZHR -01	Lower Zephyr Creek, upstream of bridge						
SLT TALL -00	Tallac Creek at mouth		1	-	7	2	1
SLT TALR -00	Taylor Creek at mouth		1	-	4	1	2
SLT TALR -01	Taylor Creek above Hwy 89	0					
SLT TCCC1	Trout Creek, behind LTCC1	8		-			
SLT TCCC2	Trout Creek, behind LTCC2		5	-			
SLT TRMO -00	Upper Truckee River at mouth	4		-	3	7	5
SLT TROU -00	Trout Creek nr confluence w/ Upper Truckee			-	9		10
SLT TROU -01	Trout Creek near Hwy 50						
SLT XMAS -01	Xmas Creek - tributary to the Upper Truckee Ri	9	4	6			
Minimum		0	0.1	3	2	1	1
Maximum		13	19	28	16	79	51

Soluble Reactive Phosphorus (ppb) - North Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
NLT BART -01	Barton Creek			6			32
NLT BCDC	Burnt Cedar Creek at Lakeshore			18			
NLT BLIS -00	Bliss Creek at mouth			7			
NLT BLKW -00	Blackwood Creek at mouth		5	5			
NLT BONP -00	Bonpland Creek at mouth	3		14	13	12	
NLT BROC -00	Brockway Creek at mouth (E/O KB boat ramp)			-			
NLT BRTN -01	Burton Creek	9	11	8	5	9	10
NLT CACN -03	Carnelian Canyon Creek at Hwy 28 -by minigolf		12	14			
NLT CBCR -01	Carnelian Bay Creek - at hwy culverts			10			
NLT COON -00	Culvert at Coon St. Beach ramp		7.5				
NLT DEER -02	Deer Creek abv Incline near Golf Course			-			
NLT DLRH -00	Dollar Creek at mouth	16	11	11	16	9	11
NLT FRST -00	First Creek			11			
NLT GLEN -00	Glenbrook Creek at mouth						
NLT GLEN -03	Glenbrook Creek						
NLT GLENC -02	Glenbrook Creek at Old Hwy 50			-			
NLT GNRL -00	General Creek at mouth		2	4			
NLT GNRL -01	General Creek at Highway 89	6		8			
NLT GRIF -00	Griff Creek at mouth	4	5	5	10	7	10
NLT GRIF -02	Griff Creek - a/b Hwy. 28, b/l pond						
NLT HMWD -00	Homewood Creek at mouth		7	16			
NLT INCL -00	Incline Creek at mouth			7			
NLT INCL -02	Incline Creek at gage	9					
NLT KING -00	Kings Creek				5		
NLT LHCR -00	Logan Creek at mouth		3	5			
NLT LHCR -02	Logan House Creek nr water tower						
NLT LKFC -00	Lake Forest Creek at mouth		26	19	57	18	24
NLT MADC -00	Madden Creek at mouth			3			
NLT MILL	Mill Creek						22
NLT MKNY -00	McKinney Creek at mouth	1	1	2			
NLT NLHC -00	North Logan House Creek at mouth			7			
NLT QULC -00	Quail Creek (lake side of culvert at Hwy. 89)		1	3		2	
NLT RSWD -01	Rosewood Creek		4	11		12	16
NLT RSWD -02	Rosewood Creek S/O Hwy. 28, D/S of golf cou	7					
NLT SCRT -00	Secret Harbor Creek			7	10	5	8
NLT SECD -01	Second Creek (off Lakeshore Drive)			20			
NLT SLHO -00	Slaughter House Creek at mouth			-	21		23
NLT SLHO -01	Slaughter House Creek at Slaughterhouse Rd.				20		
NLT SNOW -00	Snow Creek, D/S of Hwy. 28		12	-		12	13
NLT STAR -01	Hatchery Creek nr Star Harbor	4	51	57	51		52
NLT TCSP -00	Tahoe City State Park		11	18		21	
NLT TCUB -00	Tahoe Creek Urban Basin at mouth			8	12	13	20
NLT THRD -00	Third Creek	7	6	5			
NLT THRD -01	Third Creek at Hwy 431		0.9				
NLT TUNN -00	Tunnel Creek			7			7
NLT WARD -00	Ward Creek at mouth			7			
NLT WARD -01	Ward Creek at Highway 89	4		-			
NLT WATS -00	Watson Creek at mouth	0		4		5	6
NLT WOOD -00	Wood Creek at mouth			9			
NLT WOOD -02	Wood Creek - b/h commercial boat / auto repair shop			-		13	20
Minimum		0	0.9	2	5	2	6
Maximum		16	51	57	57	21	52

Soluble Reactive Phosphorus (ppb) - Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
TAH ESLTTL	Lake Tahoe at Thunderbird Lodge	0					
TAH NLAKE1	Lake Tahoe at Dollar Point						
TAH NLAKE2	Lake Tahoe near Sunnyside	0					
TAH NLAKE3	Lake Tahoe Near Tahoe City Outfall #65	0		2			
TAH NLAKE4	Lake Tahoe Near Watson Creek	0					
TAH NLAKE5	Lake Tahoe at Memorial Point			1			
TAH SLAKE1	Lake Tahoe inside Ski Run Marina						
TAH SLAKE1	Lake Tahoe 2 ft. outside Ski Run Marina						
TAH SLAKE1	Lake Tahoe 250 ft. outside Ski Run Marina						
TAH SLAKE2	Lake Tahoe at Bijou Creek						
TAH SLAKE3	South Shore of Timber Cove						
TAH SLAKE4	Lake Tahoe at Reagan Beach						
TAH SLAKE5	South Lake at Kahle Drive						
TAH SLAKE6	Lake Tahoe at Round Hill Pines						
Minimum		0		1	0		
Maximum		0		2	0		

Soluble Reactive Phosphorus (ppb) - Middle Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
MTR ALDR	Alder Creek near Emigrant trailhead		5	8	3	6	
MTR BEAR	Bear Creek across from stables	0	3	4	3	6	5
MTR BIGC	Truckee River near Goose Meadows			9	3	3	9
MTR BOCA -00	Little Truckee River below Boca Dam			3			
MTR BOCA -01	Little Truckee River at Boyington Mill				1		
MTR BOCA -02	Worn Mill Creek						
MTR CABN	Cabin Creek						
MTR COLD -00	Cold Creek near confluence with Donner Creek		5				
MTR DEEP	Deep Creek upstream of Hwy 89						
MTR DMCB	Davies Creek		17				
MTR DONN -01	Donner Creek at Hwy 89		3	8	3	2	5
MTR DONN -03	Donner Creek at Donner Lake Outlet					2	1
MTR GLEN	Union Valley Creek near mouth			8	25	17	25
MTR GRAY	Gray Creek						
MTR I80C	Truckee River at Floriston (under I-80)		3	9	2		
MTR INDE	Independence Creek at dirt road crossing		0				
MTR MART -00	Martis Creek at mouth		9	15	9	13	14
MTR MART -01	Martis Creek at ACOE				14	12	14
MTR POLE	Pole Creek						
MTR PROS	Prosser Creek		2				
MTR SAGE	Sagehen Creek						
MTR SILVR	Silver Creek at Hwy 89						
MTR SQCR	Squaw Creek		1	2	1	4	1
MTR TOWN	Truckee River at Truckee Regional Park			11	2	5	6
MTR TR01	Truckee River near Tahoe City				1	2	
MTR TROU -00	Trout Creek near mouth	13	8	7	13	6	
MTR TROU -01	Trout Creek at I-80 undercrossing		2	11	7		
MTR TROU -02	Trout Creek Upper at Bennett Flat					4	
MTR TRUC -00	Truckee River below Lake Tahoe Dam	1	2				
MTR ULTB	Upper Little Truckee River						
Minimum		0	0	2	1	2	1
Maximum		13	17	15	25	17	25

Soluble Reactive Phosphorus (ppb) - Lower Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
LTR ALU	Alum Creek			20		46	
LTR BUL	Bull Ranch Creek			10		36	
LTR CHA -1	Chalk Creek			150	62	284	
LTR DAV	Davis Creek						
LTR DOG	Dog Creek			20			
LTR DRY	Dry Creek			80	261	109	
LTR EVA	Evan Creek				450	71	
LTR GAL	Galena Creek						
LTR HUN	Hunter Creek						
LTR IDL (Q1)	Truckee River at Idlewild Park		12				
LTR JUM	Jumbo Creek			30			
LTR LEW	Lewer's Creek			60	65	82	
LTR MCR	Truckee River at McCarran Ranch						
LTR MUCR	Musgrove Creek			30			
LTR NIXB (Q4)	Truckee River above Nixon Bridge		37				
LTR NTD	North Truckee Drain						
LTR PYRL	Pyramid Lake						
LTR Q2	Truckee River at Glendale Park		13				
LTR Q3	Truckee River across from I-80 rest area past Vista		19				
LTR ROB	Roberts Creek			40	28	35	
LTR ROC	Truckee River at Rock Park						
LTR SMBT 1	Steamboat Creek (Near Reno)	44					
LTR SMBT 2	Steamboat Creek (Near Reno)	37					
LTR SMBT 3	Steamboat Creek (Near Reno)						
LTR STE	Steamboat Creek						
LTR SUN	Sunrise Creek						
LTR THO	Thomas Creek			50	84	7	
LTR UNN	Unnamed Creek			10			
LTR WADS (Q5)	Truckee River near Wadsworth Bridge		27				
LTR WHI	White's Creek			10	35	47	
LTR WHCR2.1	White's Creek						
Minimum		37	12	10	28	7	0
Maximum		44	37	150	450	284	0

Total Phosphorus (ppb) - South Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
SLT ANG1 -01	Angora Creek - U/S of Tahoe Blvd. Bridge		10	-			10
SLT ANG2 -00	Angora Creek - Golf Course	26	14	-	14		
SLT ANG3 -01	Angora Creek - Washoe Meadows			-			16
SLT BJCR -00	Bijou Creek			86	104	244	79
SLT BJCR -01	Bijou Creek - Fairway & above			80			35
SLT BJCR -02	Bijou Creek abv Pioneer			-			
SLT BPDR -00	Bijou Park Drainage			-	41	45	
SLT BPDR -01	Bijou Park Drainage			-			30
SLT BPDR -02	Bijou Park Drainage b/l Hansen's Resort						75
SLT BPDR -03	Bijou Park Drainage @ Verdon Drive				68		55
SLT BURK -00	Burke Creek nr Pump St. @ end of Campground Rd.		23	-	22	25	24
SLT BURK -01	Burke Creek at footbridge	42					
SLT BURK -02	Burke Creek S/O Hwy. 50						
SLT CASC -00	Cascade Creek			-			
SLT COLD1 -01	Cold Creek U/S of Pioneer Trail		34	-			
SLT COLD2 -01	Cold Creek b/l road		29	-			
SLT COVE -01	Tahoe Keys Marina Loaggons (East Channel)		16	-			23
SLT EAGL -01	Eagle Creek (Eagle Falls loop - just S/O bridge)			-			
SLT ECHO	Echo Creek		0.1	-			
SLT EDGE -00	Edgewood Creek at mouth		27	-	32	32	
SLT EDGE -01	Edgewood Creek abv Hwy 50					40	
SLT ELKS -01	Upper Truckee at Elks Club	20	13				31
SLT FLLF	Fallen Leaf Lake	4	4	-			16
SLT GLNA -00	Glen Alpine Creek at mouth			-			5
SLT HEAV1 -00	Heavenly Creek nr confluence @ Trout Creek		84		15	37	37
SLT HEAV2 -01	Heavenly Creek upstream Pioneer Trail		44	-			36
SLT KEYS -00	Tahoe Keys Lagoon (West Channel)	18	14	-			22
SLT LGCR -00	Lonely Gulch Creek at mouth			-			
SLT LINC -00	Lincoln Creek at Mouth			-			
SLT MARL -00	Marlette Creek at mouth		21	15			
SLT MARL -01	Marlette Creek above Hwy 28	41					
SLT MCFA -00	McFaul Creek at mouth			-	16	25	20
SLT MCFA -01	McFaul Creek at Hwy 50						36
SLT MEEK -00	Meeks Creek at mouth	10	10	8	7	10	9
SLT MOSH -01	Upper Truckee River	21		-			
SLT NZHR -00	North Zephyr Creek at mouth			-	33		
SLT RBCN -00	Rubicon Creek at mouth			-			
SLT SAXN -00	Saxon Creek at confluence w/ Trout Ck			-			
SLT SIDE -01	Upper Truckee River - Side Channel			-			
SLT SZHR -00	South Zephyr Creek at mouth		157	-	27	20	
SLT SZHR -01	Lower Zephyr Creek, upstream of bridge						
SLT TALL -00	Tallac Creek at mouth		10	-	14	12	11
SLT TALR -00	Taylor Creek at mouth	13	5	-	9	13	12
SLT TALR -01	Taylor Creek above Hwy 89						
SLT TCCC1	Trout Creek, behind LTCC1	23		-			
SLT TCCC2	Trout Creek, behind LTCC2		29	-			
SLT TRMO -00	Upper Truckee River at mouth	18		-	16	47	32
SLT TROU -00	Trout Creek nr confluence w/ Upper Truckee			-	33		30
SLT TROU -01	Trout Creek near Hwy 50						
SLT XMAS -01	Xmas Creek - tributary to the Upper Truckee R	25	15	15			
Minimum		4	0.1	8	7	10	5
Maximum		42	157	86	104	244	79

Total Phosphorus (ppb) - North Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
NLT BART -01	Barton Creek			71			40
NLT BCDC	Burnt Cedar Creek at Lakeshore			45			
NLT BLIS -00	Bliss Creek at mouth			18			
NLT BLKW -00	Blackwood Creek at mouth	17	14	10			
NLT BONP -00	Bonpland Creek at mouth			30	28	50	
NLT BROC -00	Brockway Creek at mouth (E/O KB boat ramp)			-			
NLT BRTN -01	Burton Creek	56	21	19	18	29	17
NLT CACN -03	Carnelian Canyon Creek at Hwy 28 -by minigolf		26	45			
NLT CBCR -01	Carnelian Bay Creek - at hwy culverts			15			
NLT COON -00	Culvert at Coon St. Beach ramp		7.5				
NLT DEER -02	Deer Creek abv Incline near Golf Course			-			
NLT DLRH -00	Dollar Creek at mouth	62	30	23	34	38	25
NLT FRST -00	First Creek			19			
NLT GLEN -00	Glenbrook Creek at mouth						
NLT GLEN -03	Glenbrook Creek						
NLT GLENO -02	Glenbrook Creek at Old Hwy 50			-			
NLT GNRL -00	General Creek at mouth		6	9			
NLT GNRL -01	General Creek at Highway 89	16		12			
NLT GRIF -00	Griff Creek at mouth	24	19	11	15	41	34
NLT GRIF -02	Griff Creek - a/b Hwy. 28, b/l pond						
NLT HMWD -00	Homewood Creek at mouth		17	19			
NLT INCL -00	Incline Creek at mouth			20			
NLT INCL -02	Incline Creek at gage	36					
NLT KING -00	Kings Creek				25		
NLT LHCR -00	Logan Creek at mouth		14	17			
NLT LHCR -02	Logan House Creek nr water tower						
NLT LKFC -00	Lake Forest Creek at mouth		37	31	63	45	38
NLT MADC -00	Madden Creek at mouth			7			
NLT MILL	Mill Creek						43
NLT MKNY -00	McKinney Creek at mouth	8	6	7			
NLT NLHC -00	North Logan House Creek at mouth			20			
NLT QULC -00	Quail Creek (lake side of culvert at Hwy. 89)		9	9		21	
NLT RSWD -01	Rosewood Creek		18	27		46	32
NLT RSWD -02	Rosewood Creek S/O Hwy. 28, D/S of golf co	24					
NLT SCRT -00	Secret Harbor Creek			23	24	39	19
NLT SECD -01	Second Creek (off Lakeshore Drive)			34			
NLT SLHO -00	Slaughter House Creek at mouth			-	76		51
NLT SLHO -01	Slaughter House Creek at Slaughterhouse Rd.				75		
NLT SNOW -00	Snow Creek, D/S of Hwy. 28		30	-		44	30
NLT STAR -01	Hatchery Creek nr Star Harbor	82	64	64	73		64
NLT TCSP -00	Tahoe City State Park		25	42		98	
NLT TCUB -00	Tahoe Creek Urban Basin at mouth			25	40	48	54
NLT THRD -00	Third Creek		210	18			
NLT THRD -01	Third Creek at Hwy 431	21	0.9				
NLT TUNN -00	Tunnel Creek			11			14
NLT WARD -00	Ward Creek at mouth			13			
NLT WARD -01	Ward Creek at Highway 89	13		-			
NLT WATS -00	Watson Creek at mouth	5		18		28	27
NLT WOOD -00	Wood Creek at mouth			23			
NLT WOOD -02	Wood Creek - b/h commercial boat / auto repair shop			-		63	82
Minimum		5	0.9	7	15	21	14
Maximum		82	210	71	76	98	82

Total Phosphorus (ppb) - Lake Tahoe Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
TAH ESLTTL	Lake Tahoe at Thunderbird Lodge	10					
TAH NLAKE1	Lake Tahoe at Dollar Point						
TAH NLAKE2	Lake Tahoe near Sunnyside	12					
TAH NLAKE3	Lake Tahoe Near Tahoe City Outfall #65	9		6			
TAH NLAKE4	Lake Tahoe Near Watson Creek	5					
TAH NLAKE5	Lake Tahoe at Memorial Point			8			
TAH SLAKE1	Lake Tahoe inside Ski Run Marina						
TAH SLAKE1	Lake Tahoe 2 ft. outside Ski Run Marina						
TAH SLAKE1	Lake Tahoe 250 ft. outside Ski Run Marina						
TAH SLAKE2	Lake Tahoe at Bijou Creek						
TAH SLAKE3	South Shore of Timber Cove						
TAH SLAKE4	Lake Tahoe at Reagan Beach						
TAH SLAKE5	South Lake at Kahle Drive						
TAH SLAKE6	Lake Tahoe at Round Hill Pines						
Minimum		5		6	0		
Maximum		12		8	0		

Total Phosphorus (ppb) - Middle Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
MTR ALDR	Alder Creek near Emigrant trailhead		14	17	13	42	
MTR BEAR	Bear Creek across from stables	17	8	9	8	30	15
MTR BIGC	Truckee River near Goose Meadows			19	10	77	26
MTR BOCA -00	Little Truckee River below Boca Dam			18			
MTR BOCA -01	Little Truckee River at Boyington Mill				12		
MTR BOCA -02	Worn Mill Creek						
MTR CABN	Cabin Creek						
MTR COLD -00	Cold Creek near confluence with Donner Creek		11				
MTR DEEP	Deep Creek upstream of Hwy 89						
MTR DMCB	Davies Creek		28				
MTR DONN -01	Donner Creek at Hwy 89		10	16	10	17	42
MTR DONN -03	Donner Creek at Donner Lake Outlet					77	8
MTR GLEN	Union Valley Creek near mouth			19	42	64	67
MTR GRAY	Gray Creek						
MTR I80C	Truckee River at Floriston (under I-80)		16	18	14		
MTR INDE	Independence Creek at dirt road crossing		0				
MTR MART -00	Martis Creek at mouth		30	28	33	54	34
MTR MART -01	Martis Creek at ACOE				25	48	27
MTR POLE	Pole Creek						
MTR PROS	Prosser Creek		15				
MTR SAGE	Sagehen Creek						
MTR SILVR	Silver Creek at Hwy 89						
MTR SQCR	Squaw Creek		6	8	5	54	17
MTR TOWN	Truckee River at Truckee Regional Park			15	7	82	30
MTR TR01	Truckee River near Tahoe City				4	21	
MTR TROU -00	Trout Creek near mouth	33	21	16	27	32	
MTR TROU -01	Trout Creek at I-80 undercrossing		12	21	18		
MTR TROU -02	Trout Creek Upper at Bennett Flat					24	
MTR TRUC -00	Truckee River below Lake Tahoe Dam	9	7				
MTR ULTB	Upper Little Truckee River						
Minimum		9	0	8	4	17	8
Maximum		33	30	28	42	82	67

Total Phosphorus (ppb) - Lower Truckee River Sites

Site Code	Site Description	2001	2002	2003	2004	2005	2006
LTR ALU	Alum Creek		60				
LTR BUL	Bull Ranch Creek			10			
LTR CHA -1	Chalk Creek			170	70		90
LTR DAV	Davis Creek		0				20
LTR DOG	Dog Creek		20		10		
LTR DRY	Dry Creek		160		70		220
LTR EVA	Evan Creek				510		190
LTR GAL	Galena Creek		20				70
LTR HUN	Hunter Creek		40				190
LTR IDL (Q1)	Truckee River at Idlewild Park						
LTR JUM	Jumbo Creek			20			
LTR LEW	Lewer's Creek			80	80		
LTR MCR	Truckee River at McCarran Ranch						
LTR MUCR	Musgrove Creek		40				
LTR NIXB (Q4)	Truckee River above Nixon Bridge						
LTR NTD	North Truckee Drain						
LTR PYRL	Pyramid Lake						
LTR Q2	Truckee River at Glendale Park						
LTR Q3	Truckee River across from I-80 rest area past Vista						
LTR ROB	Roberts Creek			40	60		
LTR ROC	Truckee River at Rock Park						
LTR SMBT 1	Steamboat Creek (Near Reno)		40				
LTR SMBT 2	Steamboat Creek (Near Reno)		250				
LTR SMBT 3	Steamboat Creek (Near Reno)		190				
LTR STE	Steamboat Creek						120
LTR SUN	Sunrise Creek						
LTR THO	Thomas Creek		60		120		140
LTR UNN	Unnamed Creek						
LTR WADS (Q5)	Truckee River near Wadsworth Bridge						
LTR WHI	White's Creek		20		40		170
LTR WHCR2.1	White's Creek		90				
Minimum			0	10	10		20
Maximum			250	170	510		220

Appendix C

Selected Graphs

South Lake Tahoe
- Phosphorus
- Coliform

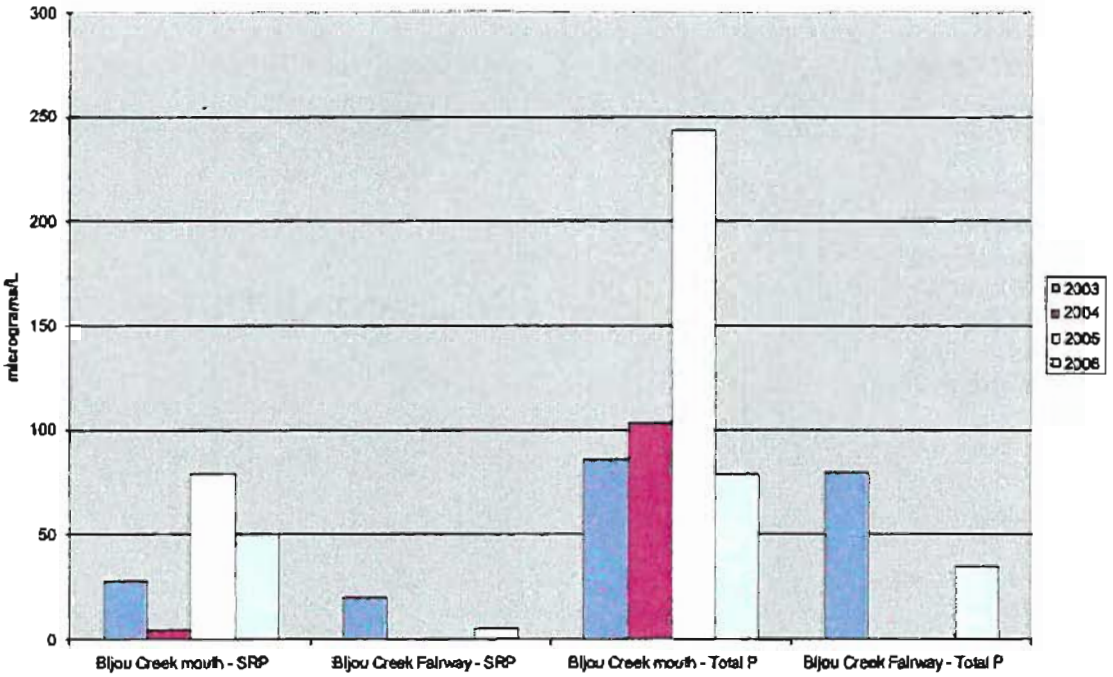
North Lake Tahoe
- Nitrogen
- Phosphorus
- Coliform

Lake Tahoe Sites
- Coliform

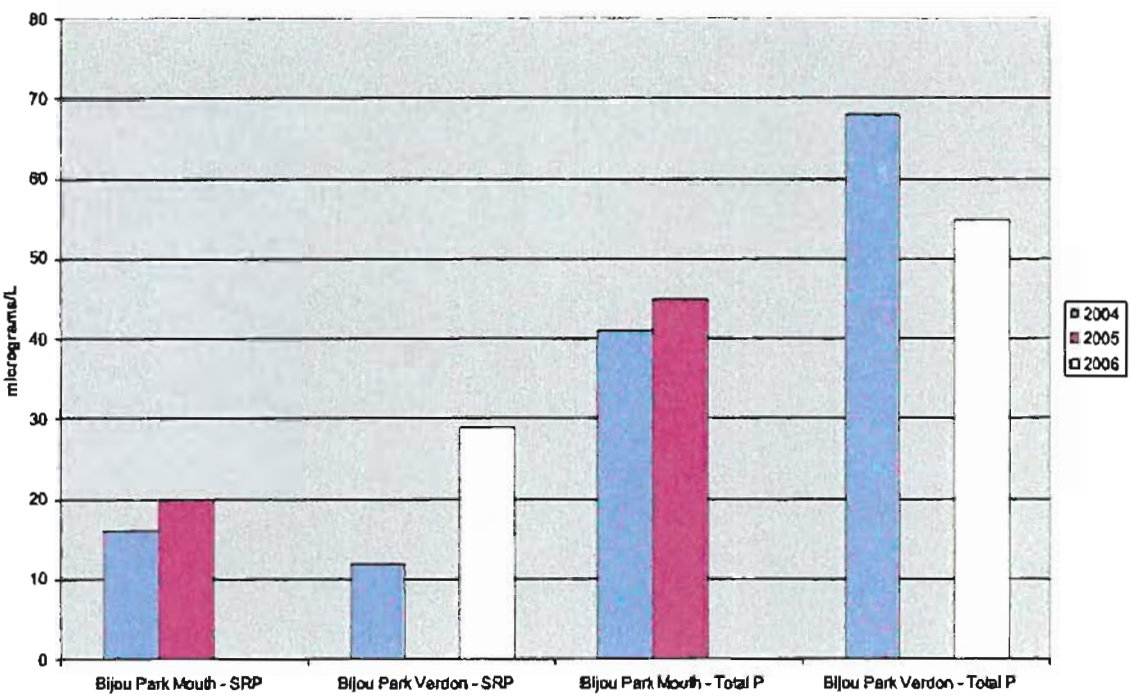
Middle Truckee River
- Nitrogen
- Phosphorus

Lower Truckee River
- Nitrate
- Phosphorus

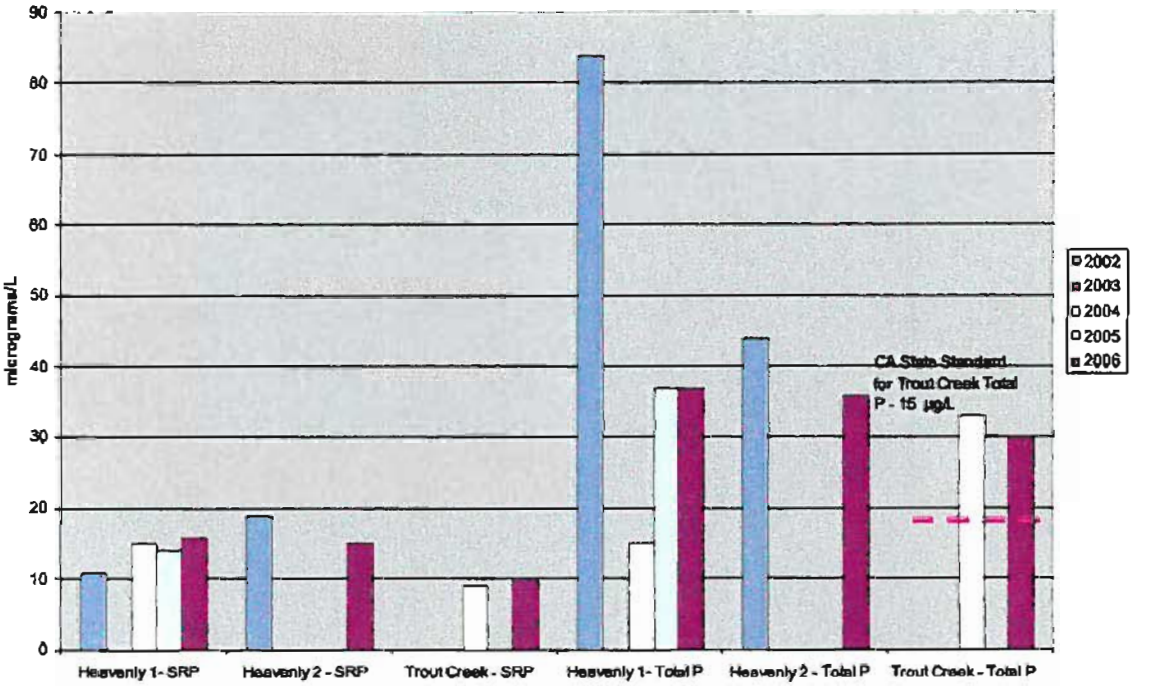
South Lake Tahoe - Phosphorus



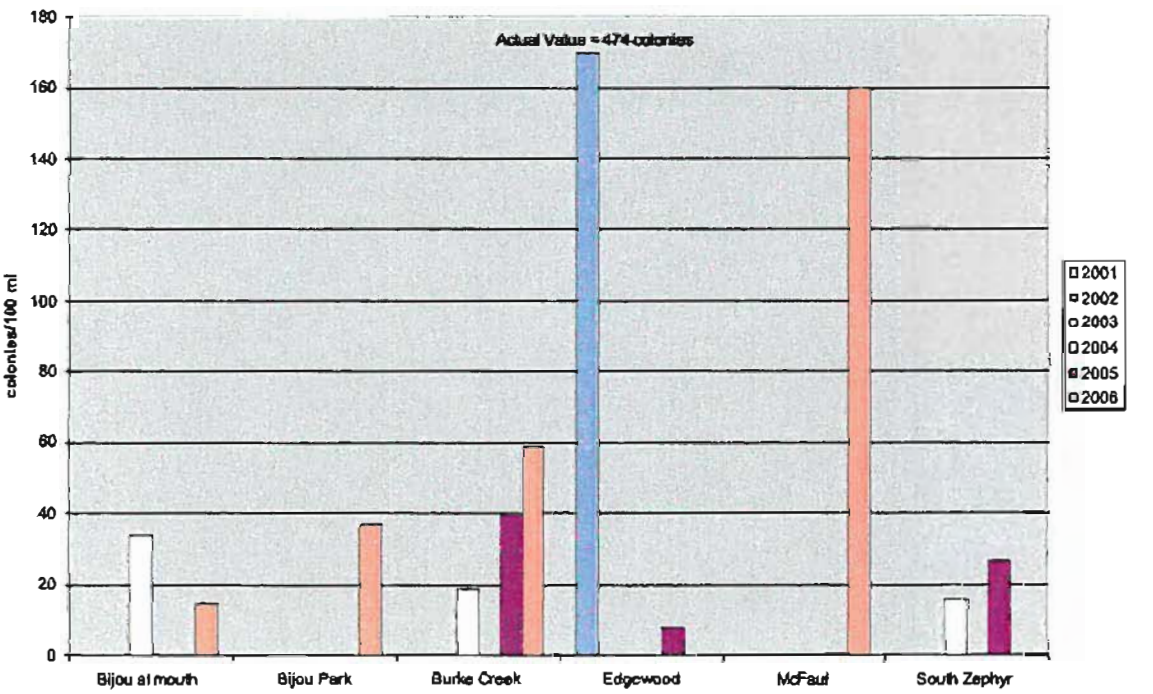
South Lake Tahoe - Phosphorus



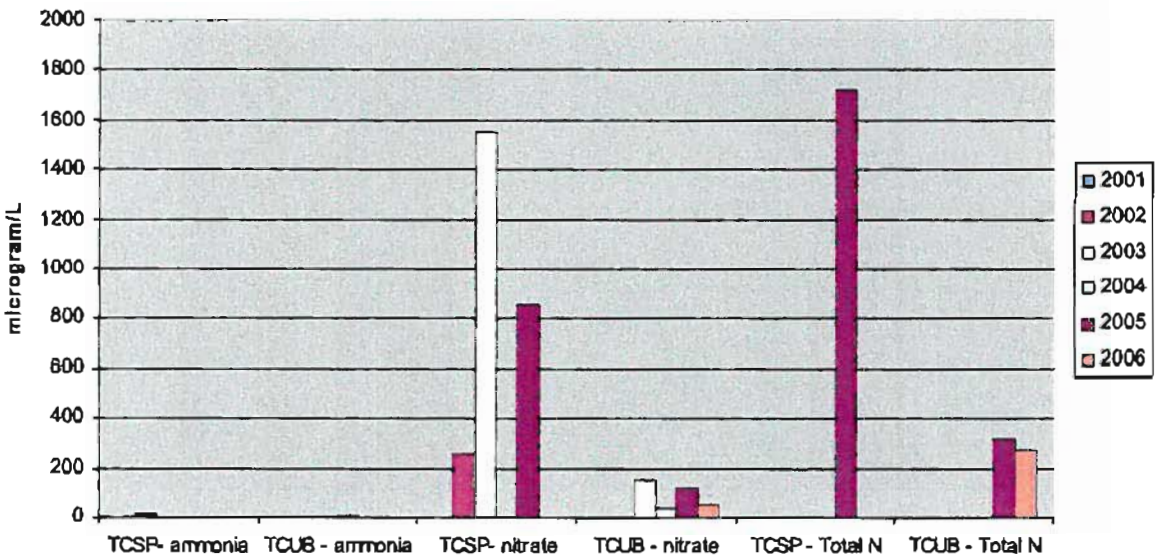
South Lake Tahoe - Phosphorus



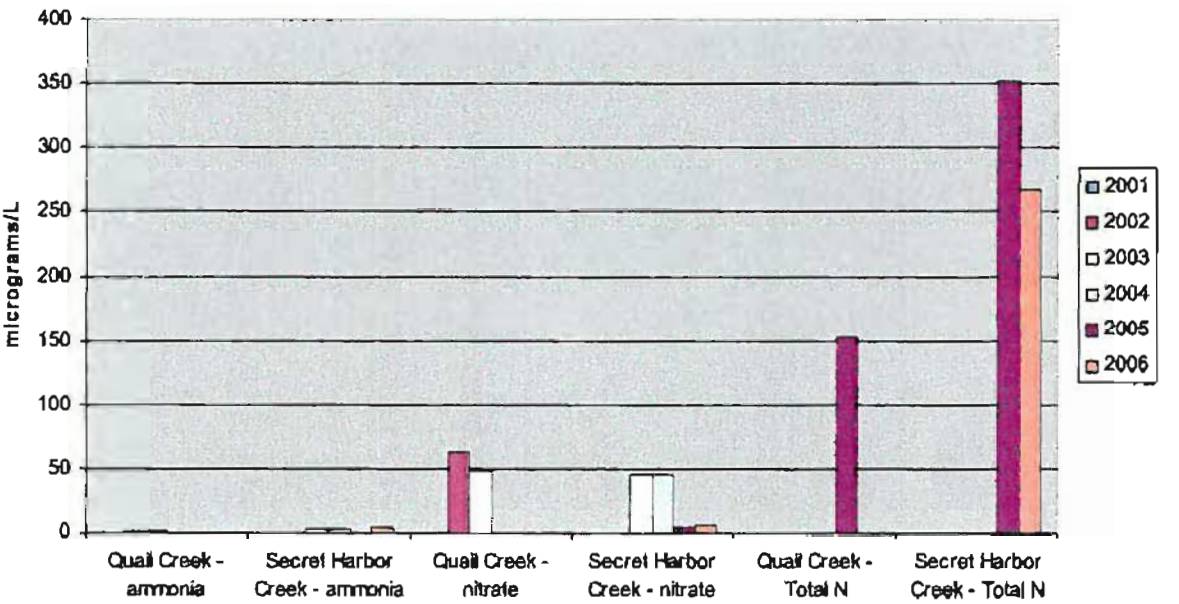
South Lake Tahoe - Coliform



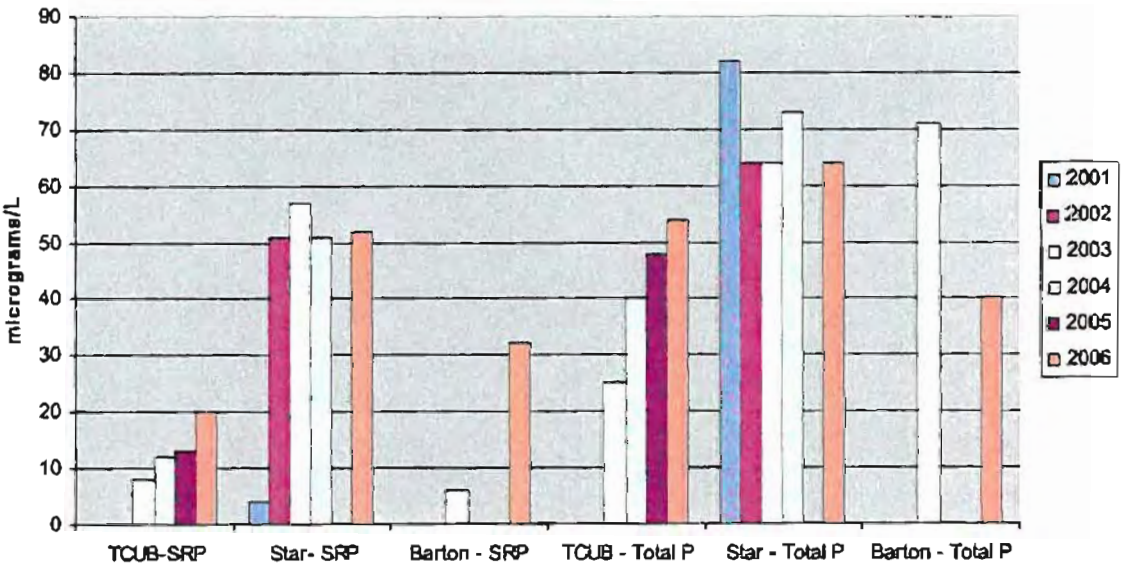
North Lake Tahoe - Nitrogen Tahoe City State Park (TCSP) and Tahoe Creek Urban Basin (TCUB)



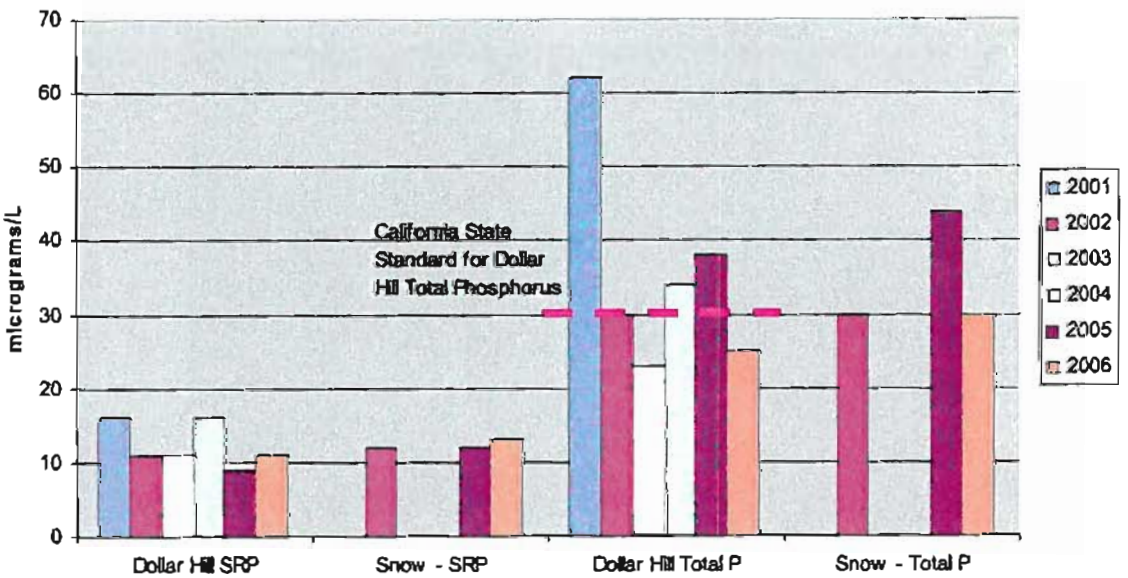
North Lake Tahoe, CA streams - Nitrogen



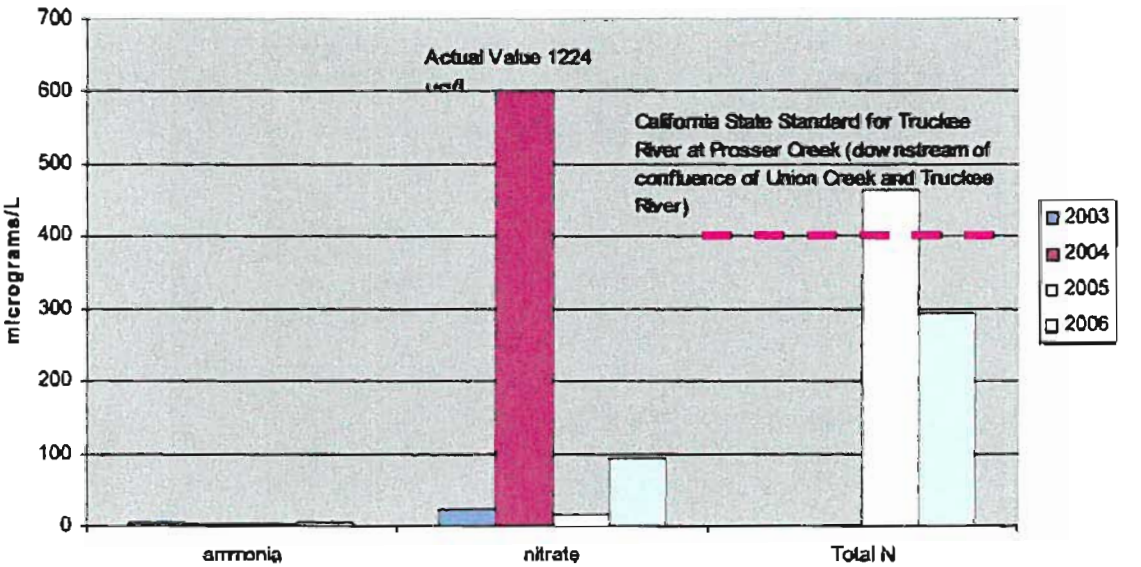
North Lake Tahoe, CA streams - Phosphorus



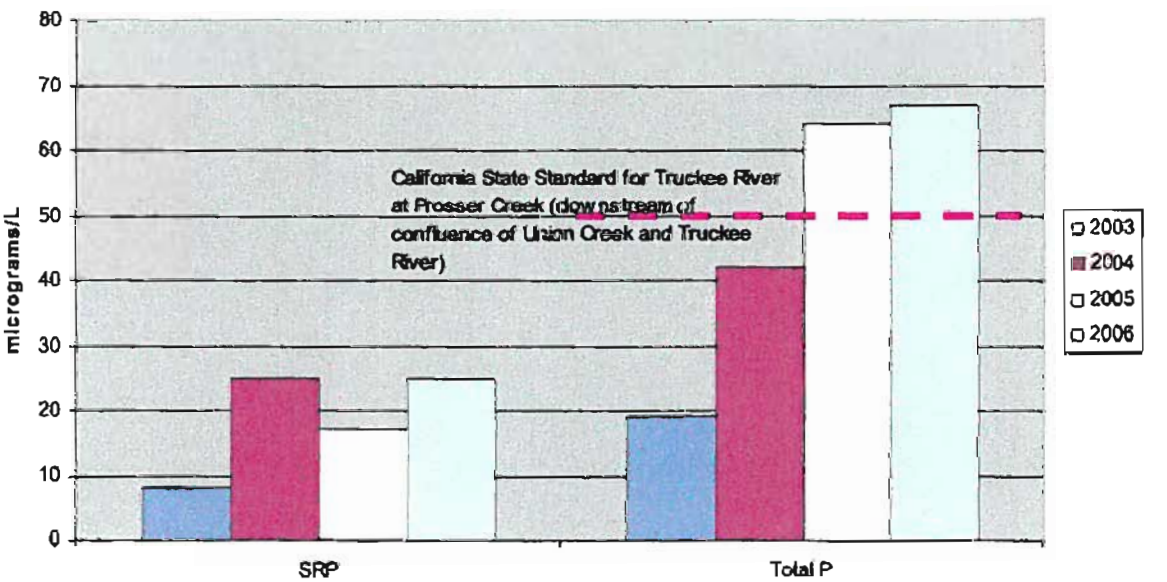
North Lake Tahoe, CA streams - Phosphorus



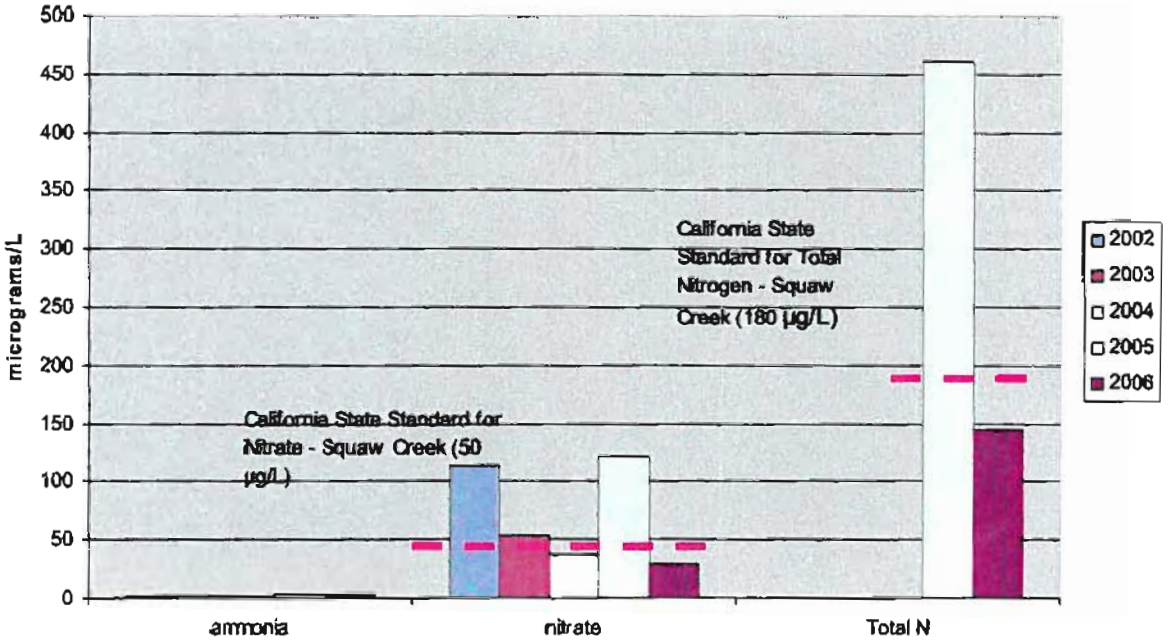
Union Valley Creek - Nitrogen



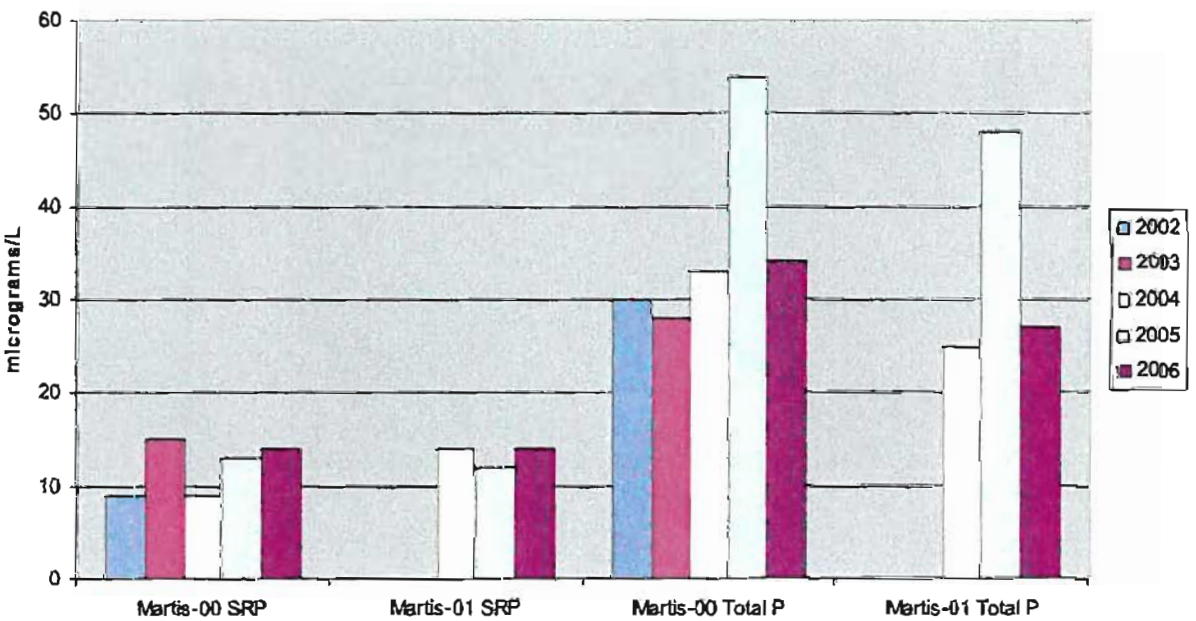
Union Valley Creek - Phosphorus



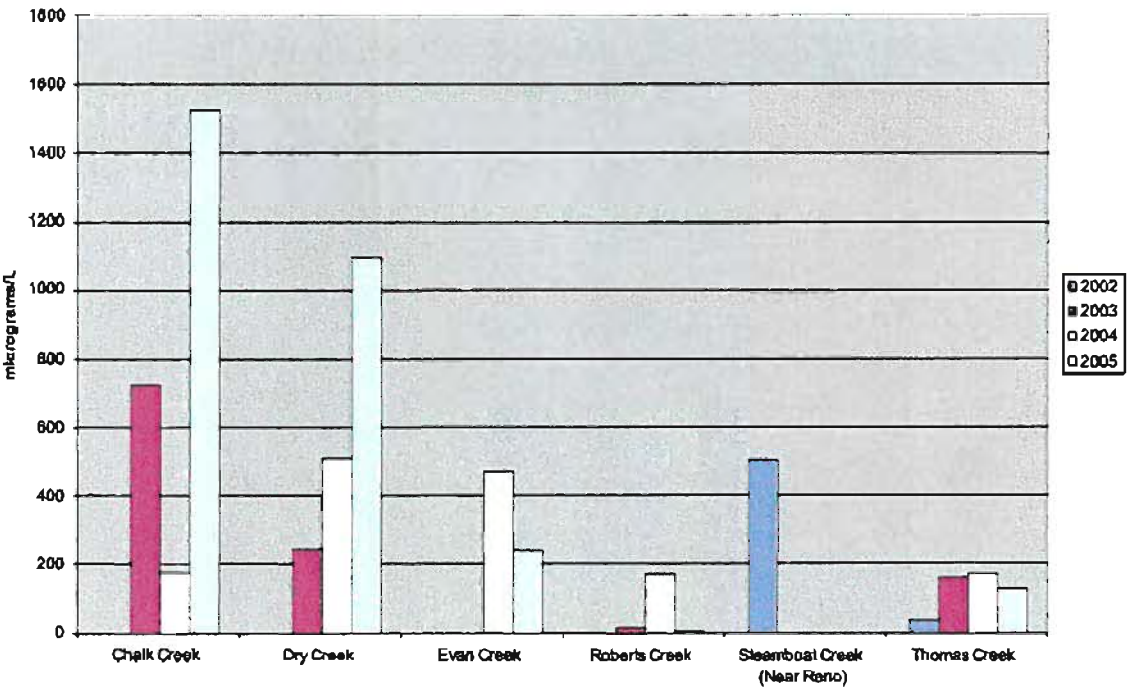
Squaw Creek - Nitrogen



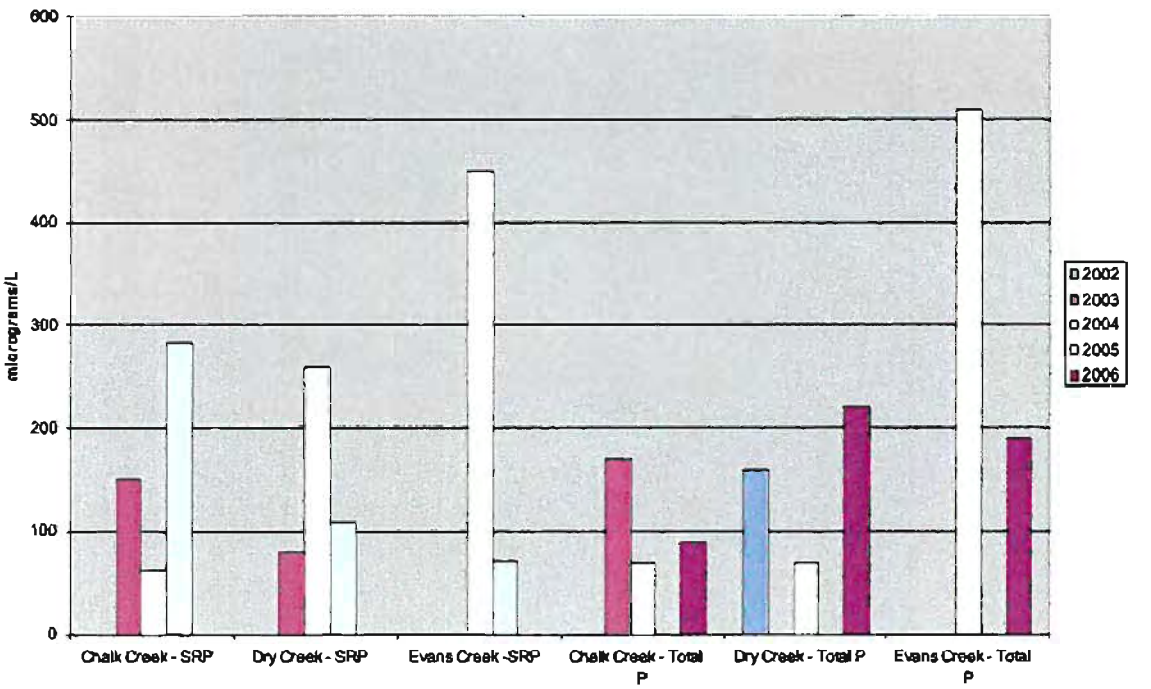
Martis Creek Phosphorus

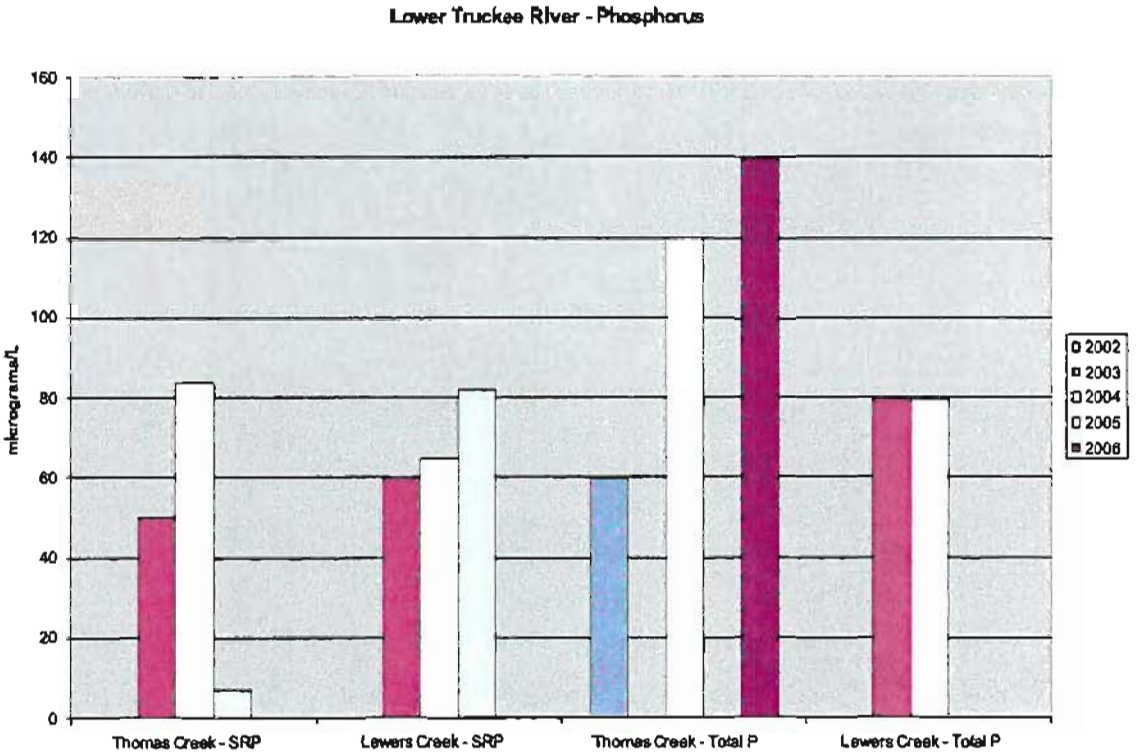


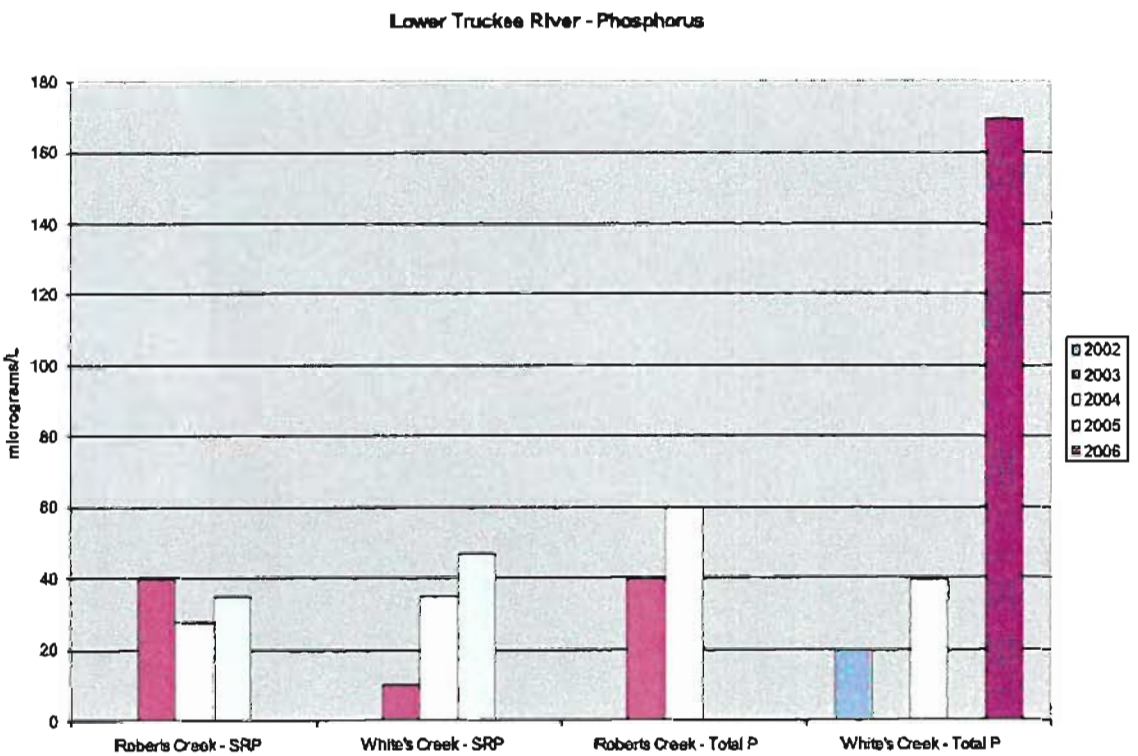
Lower Truckee River - Nitrate

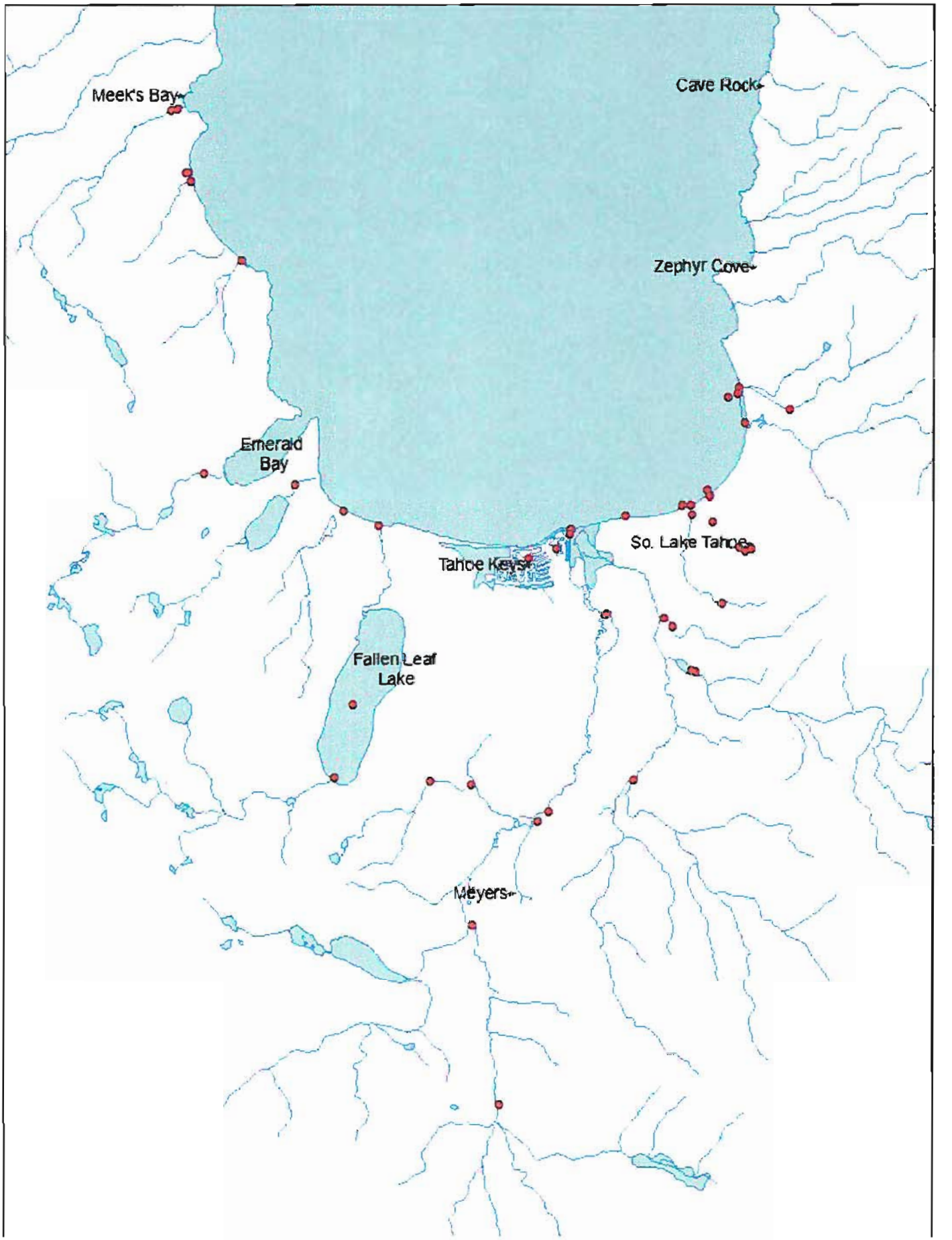


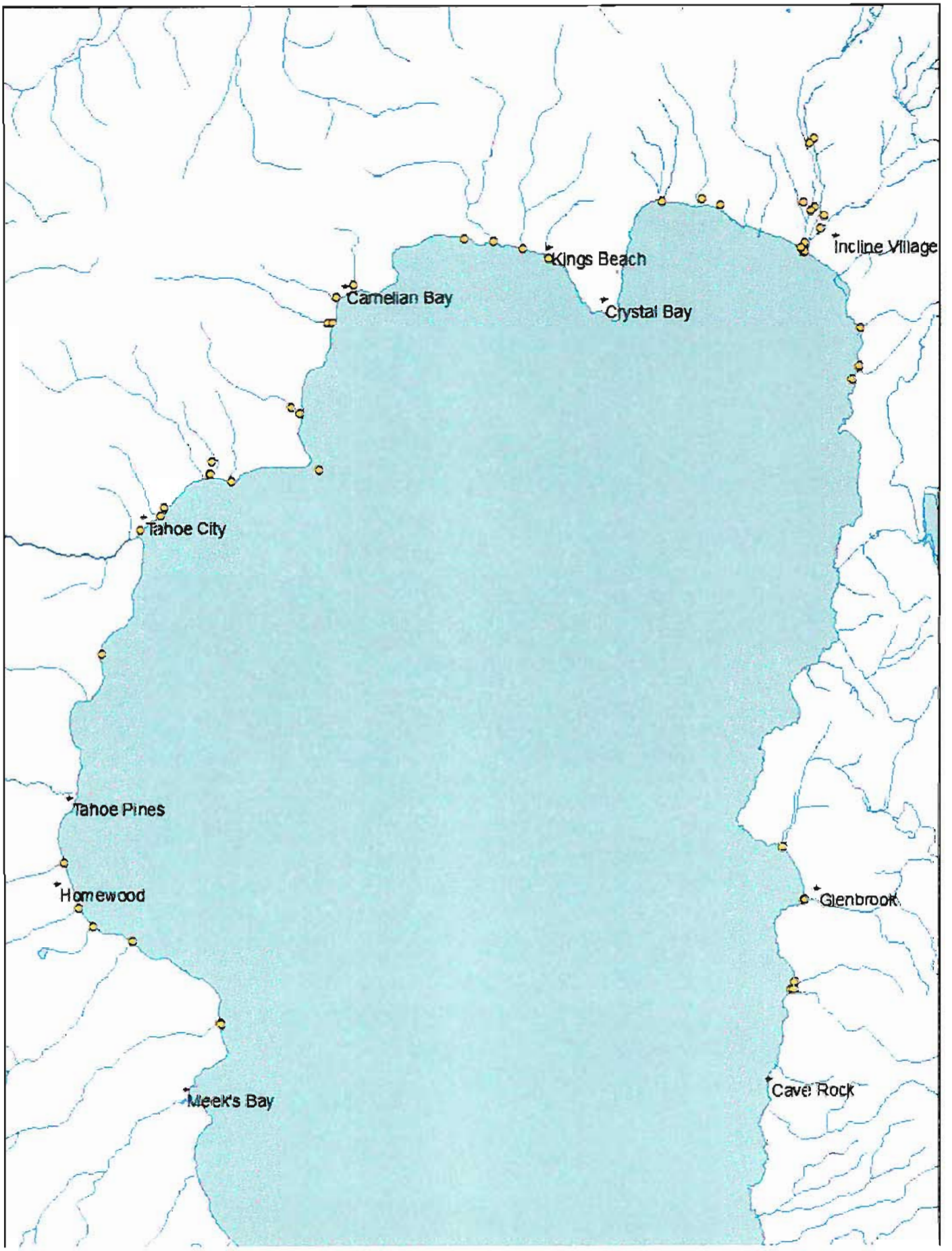
Lower Truckee River - Phosphorus

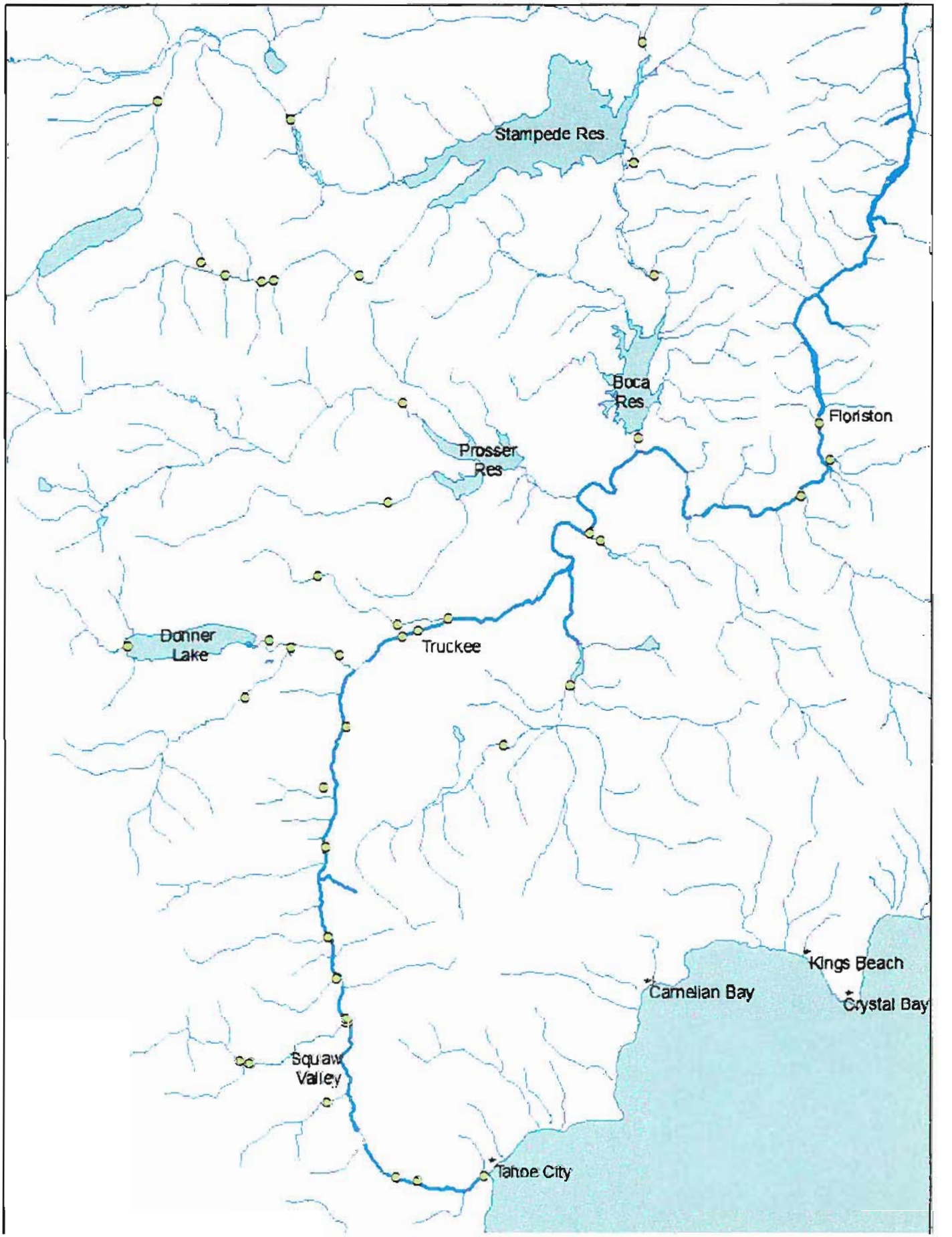


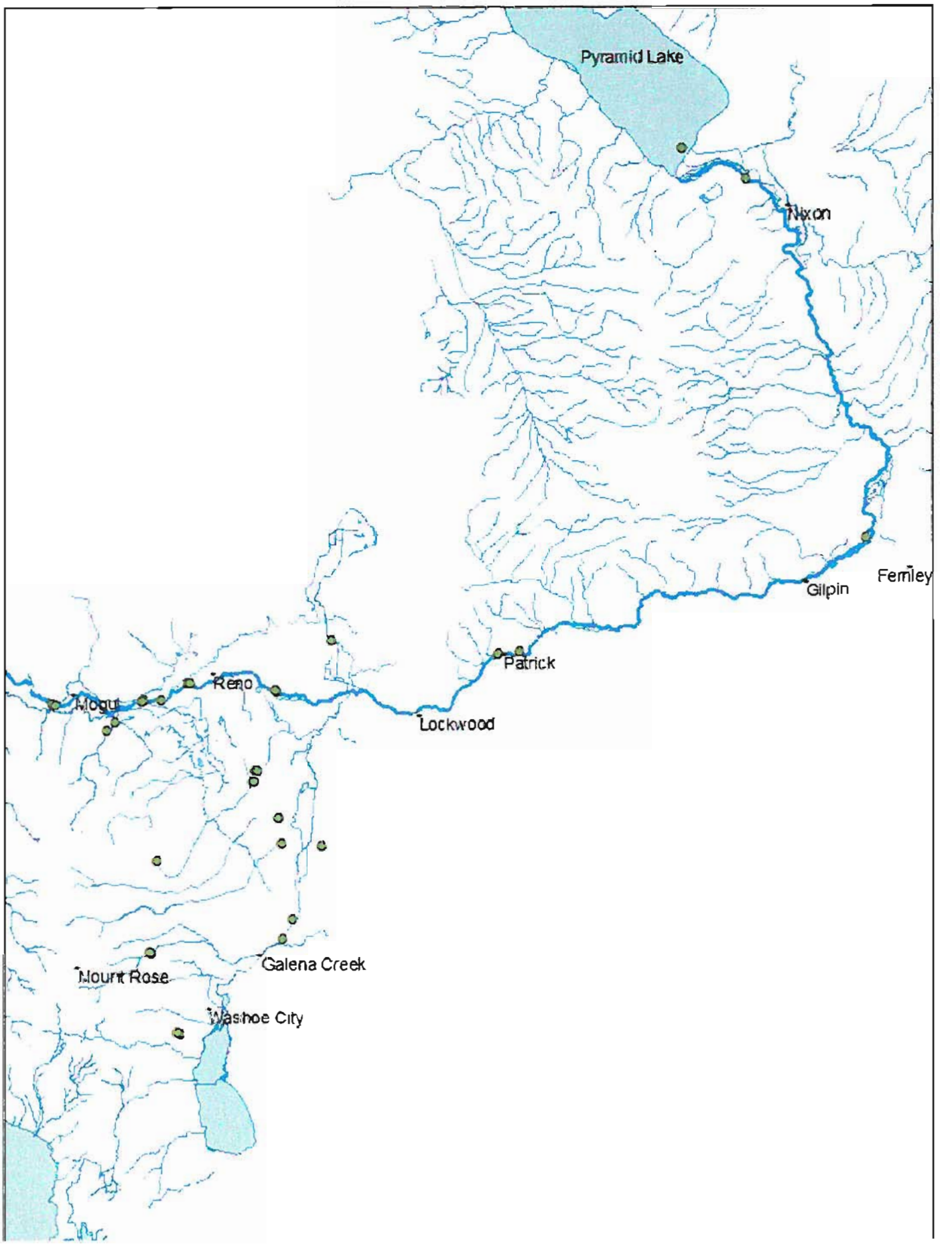

Lower Truckee River - Phosphorus
micrograms/L
160
140
120
100
80
60
40
20
0
Thomas Creek - SRP
Lewers Creek - SRP
Thomas Creek - Total P
Lewers Creek - Total P
2002
2003
2004
2005
2006


Lower Truckee River - Phosphorus
micrograms/L
180
160
140
120
100
80
60
40
20
0
Roberts Creek - SRP
White's Creek - SRP
Roberts Creek - Total P
White's Creek - Total P
2002
2003
2004
2005
2006


Meek's Bay
Cave Rock
Zephyr Cove
Emerald Bay
So. Lake Tahoe
Tahoe Keys
Fallen Leaf Lake
Meyers


Incline Village
Kings Beach
Carnelian Bay
Crystal Bay
Tahoe City
Tahoe Pines
Homewood
Glenbrook
Meek's Bay
Cave Rock


Stampede Res
Boca Res
Floriston
Prosser Res
Donner Lake
Truckee
Kings Beach
Carnelian Bay
Crystal Bay
Squaw Valley
Tahoe City


Pyramid Lake
Nixon
Fernley
Gilpin
Patrick
Reno
Mogul
Lockwood
Galena Creek
Mount Rose
Washoe City