

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LAHONTAN REGION**

**RESOLUTION NO. R6T-2008-0011**

**TAHOE CITY MARINA EXPANSION AND DREDGING PROJECT - EXEMPTION TO  
A WASTE DISCHARGE PROHIBITION CONTAINED IN THE WATER QUALITY  
CONTROL PLAN FOR THE LAHONTAN REGION**

\_\_\_\_\_ Placer County \_\_\_\_\_

**WHEREAS**, the California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

1. Tahoe City Marina (the Facility) is owned by the Tahoe Yacht Harbor, LLC (Applicant). On behalf of the Applicant, Jim Phelan submitted information to the Water Board to complete an application for Clean Water Act Section 401 Water Quality Certification (WQC) for the Tahoe City Marina Expansion and Dredging Project (hereinafter referred to as the "Project"). The Applicant proposes to dredge in previously dredged areas and place fill in discharge prohibition areas. This Resolution presents findings to exempt the Project from the discharge prohibitions in Chapter 5 of the *Water Quality Control Plan for the Lahontan Region* (Basin Plan). Authority is delegated to the Executive Officer to issue a WQC Order for the dredge and fill activities subsequent to the Board's consideration if an exemption is granted.
2. The Project is located on the north shore of Lake Tahoe in Tahoe City, Placer County. The Project vicinity and Project site are shown in Attachment A, which is made a part of this Resolution.
3. The Applicant proposes to expand the Facility by adding 81 new boat slips ranging in length from 20 to 60 feet. The total number of boat slips at the Facility after the Project is complete will be 241. The Project also involves building a new 728-foot long public access dock and pier, relocating the existing fuel tanks away from the lake edge, relocating the boat-launching facility, and providing new sewage and bilge pumpout facilities. The public pier will sit partially upon a new ten-foot-wide crib wall that will extend 324 feet out into the lake. From the end of the crib wall, the public pier will extend diagonally another 404 feet and will be placed next to a new sheet pile wall that is also 404 feet long.
4. Dredging will occur in Lake Tahoe at several locations just west of the existing marina. (See Attachment A, page 3.) Water Board staff examined bathymetry profiles to determine previously dredged areas. The Applicant proposes to dredge within these previously dredged areas. Pilings for the crib and sheet pile walls will be installed prior to beginning dredging. In addition to being the support structure for the public pier, these pilings will be used to secure turbidity curtains that will be installed around the entire perimeter of the dredging area to control suspended sediment until turbidity measurements fall to background levels.

5. The Project entails dredging in previously dredged areas and fill activities related to the expansion of the Marina. The fill involves driving 286 pilings and 404 feet of sheet pile wall into the lakebed and placing a 10-foot wide rock-filled crib wall onto the lakebed. Lake bottom fill impacts associated with the pilings, rock crib wall and sheet pile wall are 188, 3240 and 623 square feet (sf), respectively. Additional fill impacts totaling 692 sf will be caused by shoring up an existing shoreline sheet pile wall with new sheet pile wall (393 sf) and placing rock for fish habitat (25,745 sf) in the areas around the 404 foot-long sheet pile wall and lakeward of the existing marina. Dredging will occur over two or more winter seasons and will remove an anticipated 1,388 cubic yards of sediment from the lake in an area 16,609 sf. Further details regarding the Project can be found in Attachment B.
6. The Water Board adopted the Basin Plan which specifies the following discharge prohibition in Chapter 5.2 (page 5.2-3):

*The discharge, attributable to human activities, of solid or liquid waste materials, including soil, silt, clay, sand, and other organic or earthen materials, to lands below the high water rim of Lake Tahoe or within the 100-year floodplain of any tributary to Lake Tahoe is prohibited.*

7. The Basin Plan contains provisions for the Water Board to grant an exemption to the above-mentioned prohibition for specific types of projects. As stated in Section 5.7 of the Basin Plan,

*Before approving projects below the high water rim of Lake Tahoe or its tributaries, in areas which are not also considered SEZs [Stream Environment Zones], the Regional Board must make the 100-year floodplain exemption findings set forth in the section of this Chapter on 100-year floodplain protection.*

An exemption to the discharge prohibition is needed to conduct the dredging and filling activities below the ordinary high water rim of Lake Tahoe.

8. The Water Board may grant an exemption to the above prohibition provided the following exemption criteria are met:

*For public outdoor recreation facilities if:*

- a. *The project is a necessary part of a public agency's long range plans for public outdoor recreation;*
- b. *The project, by its very nature, must be sited in a floodplain [below ordinary high water (OHW) level];*
- c. *There is no feasible alternative which would reduce the extent of encroachment in a floodplain [below OHW level]; and*
- d. *The impacts on the floodplain [below OHW level] are minimized.*

9. Below are the applicable findings and justification necessary for the Water Board to grant an exemption to the prohibition:

- a. *The project is a necessary part of a public agency's long range plans for public outdoor recreation;*

The Project is necessary to improve public recreation. Tahoe Regional Planning Agency's (TRPA) Regional Plan, Chapter 5 Recreational Element, has a goal (Goal #2) to provide for "appropriate type, location and rate of development of outdoor recreational uses." Under Goal #2, under Developed Recreation, "public boat launching facilities shall be expanded, where appropriate, and when consistent with environmental constraints" and "private marinas shall be encouraged to provide public boat launching facilities." According to the TRPA Regional Plan, there is a need for additional boat launching capacity on Lake Tahoe and this policy would "encourage expansion of existing facilities or conversion of private facilities to allow public use." TRPA requires marina expansion projects greater than ten new boat slips to prepare and obtain TRPA approvals for a Master Plan for the expansion project. The Tahoe City Marina Expansion Master Plan was developed and submitted to TRPA in November 2003. It was revised in June 2005 and approved by the TRPA Governing Board on February 23, 2005 along with the Environmental Impact Statement (EIS). Placer County certified the Environmental Impact Report (EIR) on March 30, 2005. The Project is a necessary part of long range plans of Placer County and TRPA for public outdoor recreation. The Project is also necessary for public access by providing more slip moorings for the general public than what is currently available and providing more public access by including a public transit component.

- b. *The project, by its very nature, must be sited in a floodplain [below OHW level];*

The proposed Project is a water-dependent project and therefore, by its very nature, must be sited below the ordinary high water of Lake Tahoe (i.e., in the lakebed).

- c. *There is no feasible alternative which would reduce the extent of encroachment in a floodplain [below OHW level]; and*

Because the facilities associated with the expanded marina must be in the immediate proximity to the existing marina facility, there is no feasible offsite alternative for its location. Four alternatives were evaluated in the EIS/EIR including the proposed alternative and a no-action alternative. A different configuration for the additional boat slips was evaluated in one of the alternatives; however, there was no reasonable alternative that would avoid the need for an exception by reducing encroachment to zero. There is no feasible alternative that would reduce encroachment while achieving project goals.

- d. *The impacts on the floodplain [below OHW level] are minimized.*

Based on the WQC application, the Applicant will use appropriate Best Management Practices (BMPs) to ensure that any potential water quality

impacts will be minimized or avoided. The Applicant will also use the BMPs specified in the mitigation measures in the Tahoe City Marina Expansion Master Plan and EIR/EIS.

10. Placer County Board of Supervisors certified an EIR for the Project on March 30, 2005 (State Clearinghouse No. 2001062042) in accordance with the provisions of the California Environmental Quality Act (CEQA, Public Resources Code Section 21000 et seq.).

As a CEQA responsible agency, pursuant to Section 15096 of the CEQA Guidelines, the Water Board has considered the EIS/EIR prepared for the Project and approved by the Placer County Board of Supervisors and TRPA. Placer County and TRPA identified the significant and potentially significant water quality impacts in the EIS/EIR. The Water Board finds the mitigation measures in the Final EIS/EIR to be adequate to reduce significant or potentially significant water quality impacts to less than significant levels. Examples of the mitigation measures specified in the EIS/EIR include, but are not limited to, (1) suspending dredging operations at the onset of severe weather, (2) prohibiting construction and dredging in the lake between May 1 and October 1 to avoid impacts to spawning fish, and (3) developing and implementing a site-specific Boating Pollution Reduction Program (BPRP) to mitigate the projected impacts from increased boating activity. The BPRP includes providing full-time pump assistance, installing a spill prevention system at the fuel pump, improving accessibility of public restrooms and sewage pump-out facilities, and taking part in a boat sticker program to address and help fund resolution of water quality issues associated with increased marina capacity. The Water Board will file a Notice of Determination for the above-referenced Final EIR with the State Clearinghouse concurrently with issuance of the WQC Order.

11. The Water Board has notified the Applicant and interested agencies and persons of its intent to adopt this Resolution.
12. The Water Board, in a public meeting, heard and considered all comments pertaining to the discharge and a proposed exemption to a waste discharge prohibition in the Basin Plan.

**THEREFORE, BE IT RESOLVED THAT:**

1. The criteria stated in Finding No. 8 above for exemptions to the Basin Plan prohibition are satisfied for the Tahoe City Marina Expansion and Dredging Project.
2. The Water Board hereby grants an exemption to the Basin Plan prohibition stated in Finding No. 6 for the Tahoe City Marina Expansion and Dredging Project.
3. Prior to construction, the Applicant must obtain an Order for Clean Water Act Section 401 Water Quality Certification that includes a Monitoring and Reporting Program as specified by the Executive Officer.



## **ATTACHMENT A**

### **Project Vicinity and Site Maps**

Page 1 of 3: Location Map

Page 2 of 3: Proposed Marina Layout

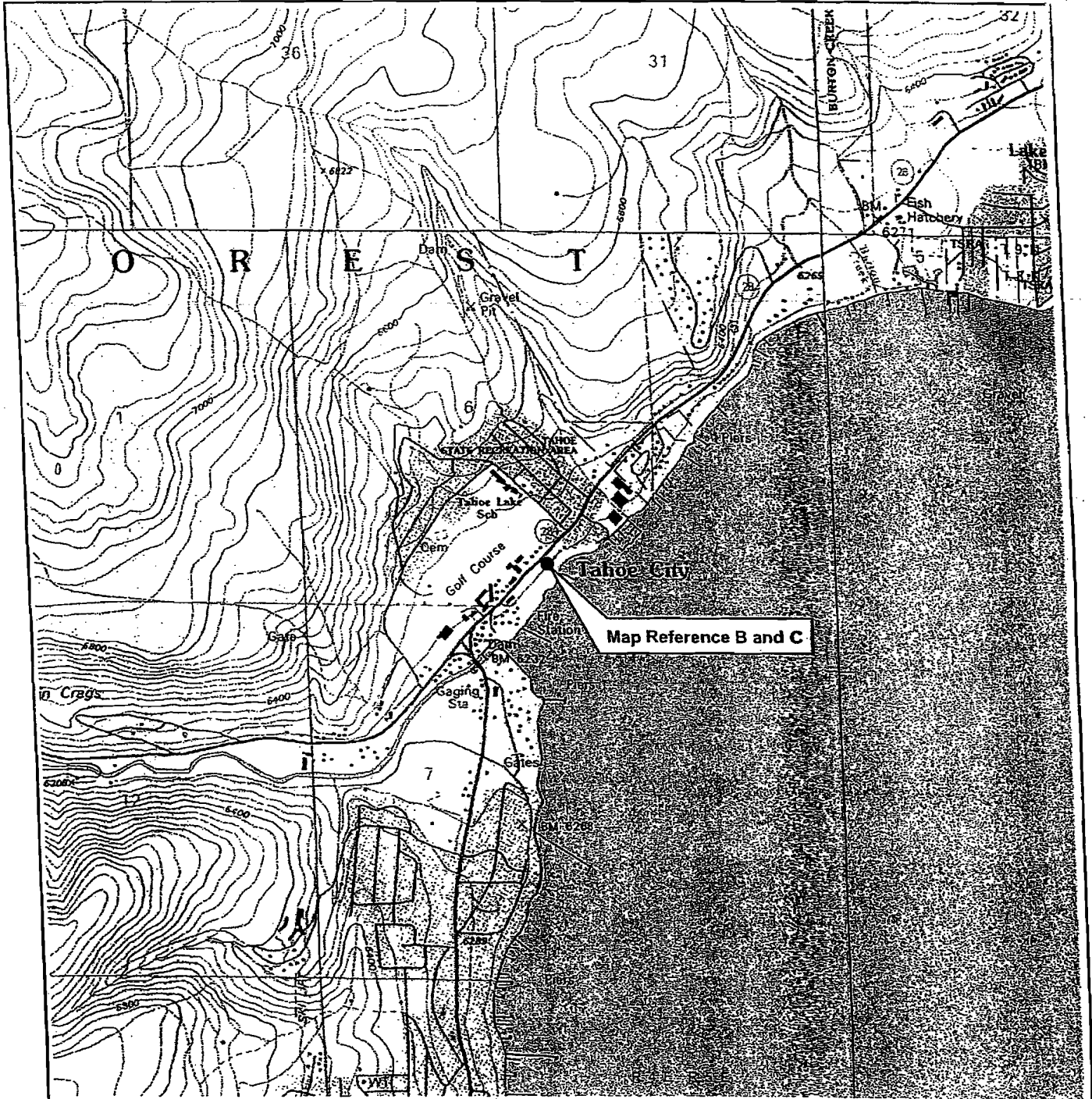
Page 3 of 3: Dredging Plan Map

# Attachment A (pg. 1 of 3) – Location Map

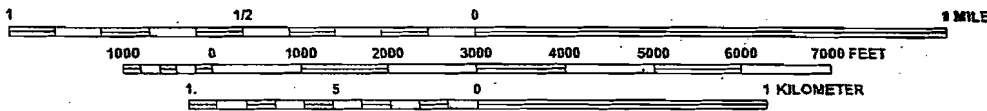
\*Map Name: U.S.G.S. Tahoe City/Kings Beach Quads

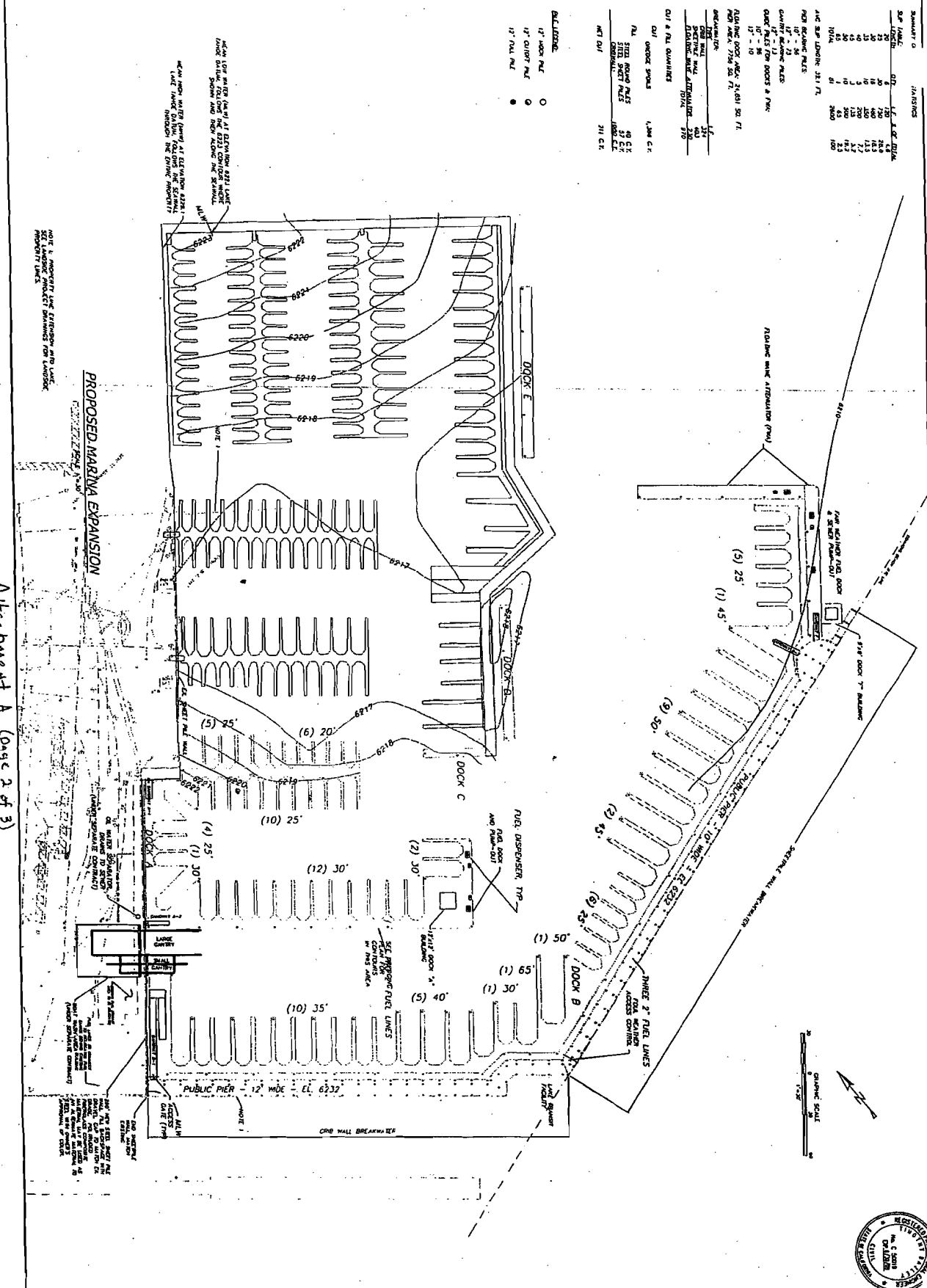
\*Scale: 1:24 000

\*Date of Map: 1992



Source: U.S.G.S. Tahoe City Quad 1992 – Contour Interval 40 Feet / U.S.G.S. Kings Beach Quad 1992 – Contour Interval 40 Feet





PROJECT	TAHOE CITY MARINA	 Bluewater Design Group Planning and Engineering Services For Marina and Waterfront Resorts	2588 Via Cabrillo Marina, Suite 200 Tahoe City, CA 95731 Tel: 530 548 3132 Fax: 530 548 1924	Scale: 1"=30' Date: 03-07-08
				Drawing No: 2102 Sheet: L-2 Total Sheets: 4 of 26

Attachment A (page 2 of 3)





DATE: 03-07-08

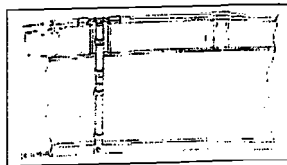
TAHOE CITY MARINA DREDGING PLAN

75

STATUS

- DREDGING NOTES:**
- DREDGING QUANTITY IS MEASURED IN PLACE, BASED ON TOPOGRAPHIC DATA PROVIDED BY TCM CONTRACTOR TO VERIFY PRIOR TO DREDGING.
  - ALL DREDGING WITHIN PROJECT AREA TO ELEVATION 8216 IS CONSIDERED MAINTENANCE DREDGING. NEW DREDGING (DREDGING BELOW ELEVATION 8216) IS PROHIBITED.
  - SAVE ALL ROCK LARGER THAN 8" IN DIAMETER FROM DREDGING AREA FOR USE IN ONE WALL DREDGING BELOW ELEVATION 8216 IS PROHIBITED.
  - IN DESIGNATED FISH SPAWNING AREAS, DREDGING SHALL BE CONDUCTED BETWEEN OCTOBER AND APRIL TO MINIMIZE IMPACTS TO FISH SPAWNING HABITAT.
  - PRE-DREDGING ANALYSES OF LAYERED MATERIAL SHALL BE SUBMITTED TO THE LAHONTAN REGIONAL BOARD PRIOR TO COMMENCEMENT OF DREDGING OPERATIONS.
  - DISCHARGE FROM SPOOLS OF MATERIAL INTO THE LAKE SHALL BE PREVENTED.
  - OPERATIONAL CONTROLS SHALL BE IMPLEMENTED TO MINIMIZE TURBIDITY.
  - ALL EXCAVATED SEDIMENTS SHALL BE REMOVED FROM THE LAKE AND DISPOSED OF AT APPROPRIATELY DESIGNATED LANDFILLS WHICH ARE ABOVE THE HIGH WATER ROW OF LAKE TANGEE (ELEVATION 8229.1 LAKE TANGEE BASIN) IF IN THE LAKE BASIN OR ELSE, OUTSIDE OF THE LAKE BASIN.
  - LAYERS OF SEALED TRUCKS SHALL BE USED TO TRANSPORT DREDGED SEDIMENT TO PREVENT THE LEAKAGE OF WATER CONTAINED IN THE SEDIMENTS.
  - TEMPORARY CONTAINMENT STRUCTURES, SUCH AS TURBIDITY BARRIERS, SHALL BE INSTALLED AND MAINTAINED SO THAT RECEIVING WATER LIMITATIONS AND PROVISIONS ARE NOT VIOLATED OUTSIDE THE PROJECT AREA UNDER ANTICIPATED WIND AND CURRENT LOADS. CONTAINMENT STRUCTURES SHALL REMAIN IN PLACE UNTIL THE FULFILLMENT OF ALL DREDGING OPERATIONS CEASES TO EXIST.
  - ALL DREDGING ACTIVITIES SHALL CEASE AND TEMPORARY CONTROL MEASURES SHALL BE IMMEDIATELY INSTALLED IF SEDIMENT WEATHER CONDITIONS DETERIORATE TO TRANSPORT DREDGED SEDIMENTS FROM THE PROJECT AREA.
  - NON-FLOATING MECHANICAL EQUIPMENT TO BE OPERATED IN THE LAKE SHALL BE STEAM CLEANED AND INSPECTED PRIOR TO USE, AND OPERATED WITHIN AREAS ENCLOSED BY TURBIDITY AND OR BARRIERS.
  - ALL AT AND THROUGH SHALL EXCAVATED SEDIMENTS BE PLACED IN SURFACE WATER DRAINAGE COURSES OR IN SUCH A MANNER TO ALLOW THE DISCHARGE OF SUCH MATERIALS TO ADJACENT, UNDISTURBED LAND OR TO ANY SURFACE WATER DRAINAGE COURSE.

**MIDDLEWEIGHT TURBIDITY BARRIER**

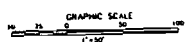
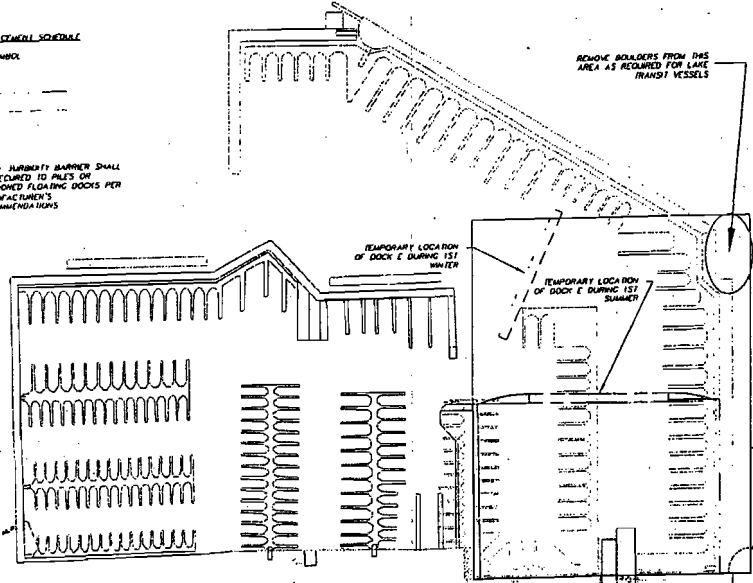


**SPECIFICATIONS**

FABRIC	Heavy duty woven polypropylene mesh 12 ft by 12 ft in mesh.
CONNECTOR	Galvanized steel pipe 4" diameter with 1/2" thick flange and 1/2" diameter anchor bolt.
FLOATION	1" diameter polypropylene floats spaced 10" to 12" on center.
BALLAST LINE/BALLAST	1/2" diameter steel wire rope.
TOP LOAD LINE	1/2" diameter steel wire rope.

- TURBIDITY BARRIER PLACEMENT SCHEDULE**
- | OPERATION  | START DATE |
|------------|------------|
| 1ST WINTER | 1ST SUMMER |
| 2ND WINTER | 2ND SUMMER |
| 3RD WINTER | 3RD SUMMER |

NOTE: TURBIDITY BARRIER SHALL BE SECURED TO PILES OR ANCHORED FLOATING DOCKS PER MANUFACTURER'S RECOMMENDATIONS.



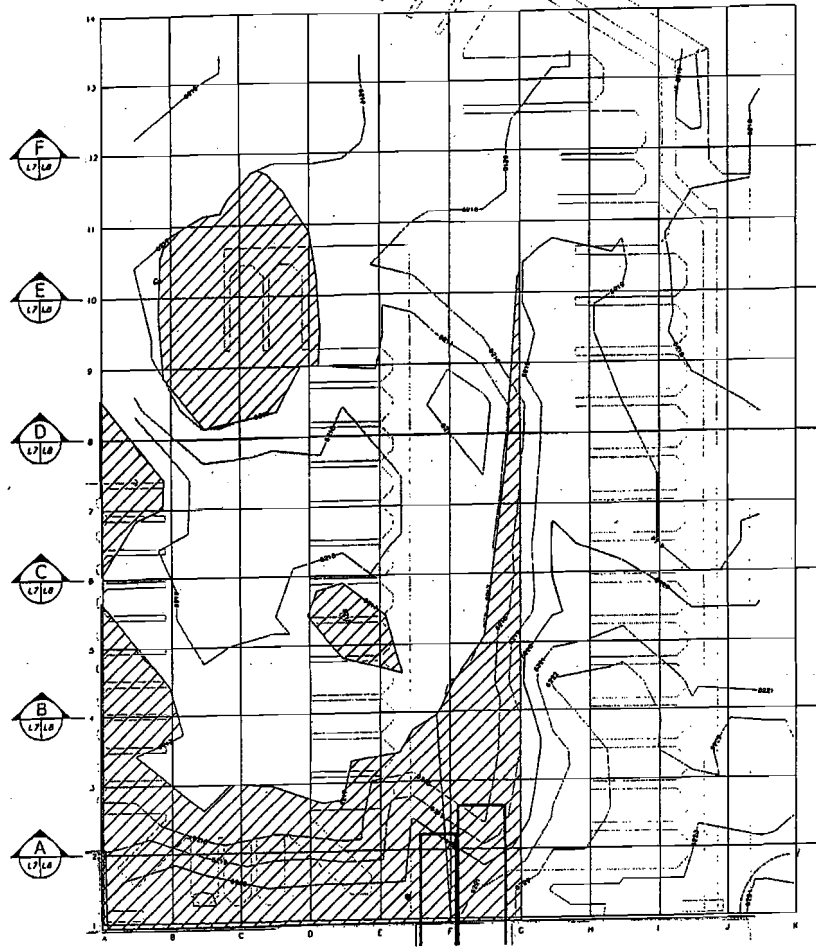
**DREDGING PLAN**  
SCALE 1" = 50'

**TOTAL DREDGING STATISTICS:**

- TOTAL DREDGING QUANTITY IS APPROXIMATELY 1,388 CUBIC YARDS.
- TOTAL DREDGING AREA IS APPROXIMATELY 14,809 SQUARE FEET.

**CUT & FILL QUANTITIES**

CUT (DREDGE SPOOLS)	TOTAL	1,388 C.Y.
FILL	STEEL ROLLING PILES	40 C.Y.
	STEEL SHEET PILES	17 C.Y.
	CRUSHED ROCK	1,800 C.Y.
	TOTAL	1,777 C.Y.
NET CUT		211 C.Y.



PROPOSED MAINTENANCE DREDGING AREA

**DREDGING DETAIL**  
SCALE 1" = 20'

NOTE: HWY FOLLOWS THE BULKHEAD THROUGH THE ENTIRE PROJECT, HWY FOLLOWS THE BULKHEAD WHERE NOT OTHERWISE SHOWN.

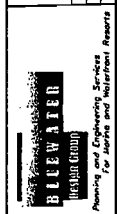


AS NOTED	03-07-08
DATE	2102
BY	L-7
NO.	9 of 26

**DREDGING PLAN**

2008 W. Colville Highway, Suite 200  
 San Pedro, CA 90731  
 Tel: 310 548 3133  
 Fax: 310 548 1374

AW  
 AW/ICE  
 TB



PROJECT	TAHOE CITY MARINA
DATE	03-07-08
BY	L-7
NO.	9 of 26

**TAHOE CITY MARINA**

Attachment A (page 3 of 3)

## **ATTACHMENT B**

### **Project Details and Description**

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**Attachment B**  
**Project Details and Description**

**Tahoe City Marina Expansion and Dredging Project**

The following provides the details and description of the Project (in the sequence of installation):

- 1) One hundred and fifty-two (152) 10-inch diameter steel piles and one hundred and thirty-four (134) 12-inch diameter steel piles (188 square feet of fill) will be driven into the lake bottom using either the vibratory hammer method (the anticipated method) or the impact hammer method. If turbidity develops due to lake bottom disturbance, a hollow casing (larger pipe) will be lowered to surround the pipe and contain the turbidity while the pile is hammered into place. These pilings will be the support structure for the floating boat docks, the 728 feet-long fixed public pier, the crib wall that will extend perpendicular to the shoreline, and a sheet pile wall that begins at the end of the crib wall and makes a 58° turn to the east. The pilings will be installed throughout the duration of the project, as needed to support the pier, or anchor floats.
- 2) Next, the 404-foot long sheet pile wall, made up of interlocking sheet pile sections, will be installed beginning at a point 324 feet from the shore (starting where the crib wall ends) and continuing in an easterly direction following the Commons Beach line of site. The steel sheet varies in thickness from 0.6 to 0.75 inches and is bent in a zigzag pattern, thereby occupying a width of approximately 18.5 inches (623 square feet of fill). The sheet piles will be driven into the lake using a method similar to the steel piles (vibratory hammer method) and will use the steel pilings as a template against which the sheet pile sections can be aligned. The sheet pile will be installed in the first winter season.
- 3) A 10-foot wide crib wall will be constructed during the first winter season starting from approximately 180 feet southwestward from the southern extent of the existing marina and extending 324 feet into the lake. Pilings for the crib wall will be installed using similar methods cited above. Horizontal crib rails will be attached to the vertical pilings. The rock used to fill the crib wall will be collected from either the dredging area or from the area where rock has been stockpiled over the years along the existing seawall. Rocks will be placed, not dumped, into the crib wall structure only after the turbidity curtains are installed and dredging has begun. The smaller rocks (6" to 18") will be used for the crib wall, while the larger rocks (greater than 18" in diameter) will be placed along the inside of the sheet pile wall.
- 4) Mid-weight turbidity curtains will be installed around the entire perimeter of the area to be dredged and will attach to the crib wall and sheet pile wall on the south side and the existing marina on the north side. Two parallel turbidity curtains will be installed at the eastern opening of the marina where there are no support structures for the curtains. The turbidity curtains will remain throughout the project, but will be moved closer to the shore as the Project proceeds.
- 5) Dredging will occur in three main areas within the turbidity curtains as shown on Attachment 1: just south of the boat entrance to the existing marina, just north of

the proposed crib wall, and around the shoreline perimeter of the marina expansion. The volume of anticipated material to be dredged from these areas is approximately 1,388 cubic yards from 16,609 square feet of area (0.38 acre). The dredging operation will use a barge-mounted, long-arm excavator that will deposit material directly into lined trucks via a barge or conveyor. The transport of the dredged material over the lake will be within the turbidity barriers. The trucks will haul away the dredged material to an approved landfill (Eastern Regional Landfill in Truckee). Dredging in the existing marina is allowed to 6,216 feet, while maintenance dredging in the area west of the marina is allowed to dredge to 6,217 feet, according to Board Order No. 6-89-72.

- 6) Rock mounds will be placed around holes at the base of the sheet pile wall to allow for fish passage.
- 7) Two floating wave attenuators (FWA) will be installed at the north end of the sheet pile wall. FWAs are similar to floating docks, but have wing walls on the sides that extend a few feet deeper than a typical dock to provide energy dissipation for incoming waves. The first FWA will run parallel to the shore starting near the end of the sheet pile wall and the second FWA will run perpendicular to the shore starting at the end of the first attenuator. The FWAs will float on or remain in place via round steel piles, which will be driven into the lake by methods described above.
- 8) A nine-foot by nine-foot fair weather fuel dock and sewer pump-out dock will be installed near the end of the sheet pile wall and the beginning of the first FWA.
- 9) 260 feet of new sheet pile wall will be installed in front of old sheet pile wall parallel to the shoreline in the area of the new marina (400 square feet of fill).
- 10) Three floating docks (Docks C, D, and E) will be installed next to the existing marina. These docks and the FWAs will be lowered onto the lake and manipulated into position by a crane operating from a barge.
- 11) A gangway, small gantry and large gantry will be installed next to the existing marina at the north end of the new marina.
- 12) The public pier (12' and 10') will be installed on top of the crib wall and on the inside of the sheet pile wall.

The fill quantities are listed in the following table:

<b>Project Descriptor</b>	<b>Square feet</b>	<b>Cubic Yards</b>
10-inch Pilings (152)	83	40
12-inch Pilings (134)	105	
Crib Wall	3,240	1,080
Sheet Pile Walls (623 sf + 393 sf)	1,016	57
Rock for fish habitat mitigation*	25,745	954
<b>Total Fill</b>	<b>30,189 ft<sup>2</sup> (0.69 acre)</b>	<b>2,131 cy</b>

\*This quantity of fill may decrease depending on the results of fish habitat survey that will be performed during the summer of 2008.

Source: Bluewater Design Group