



BOARD OF SUPERVISORS
AGENDA LETTER

Agenda Number:

Clerk of the Board of Supervisors
105 E. Anapamu Street, Suite 407
Santa Barbara, CA 93101
(805) 568-2240

1

Department Name: Parks
Department No.: 052
For Agenda Of: March 25, 2008
Placement: Departmental
Estimated Tme: 45 minutes
Continued Item: No
If Yes, date from:
Vote Required: Majority

TO: Board of Supervisors

FROM: Department Daniel C. Hernandez, Director of Parks (568-2461) *SA*
Director
Contact Info: Jeff Stone, Deputy Director of Parks (934-6145)

SUBJECT: Public Hearing to Consider Protocols to Prevent the Introduction of the Quagga Mussel to Cachuma Lake County Park

County Counsel Concurrence

As to form: N/A

Auditor-Controller Concurrence

As to form: N/A

Other Concurrence:

As to form: N/A

Recommended Actions:

That the Board of Supervisors:

- a. Receive a presentation from County Parks on Cachuma Lake Quagga Protocols developed with an Ad Hoc Committee as requested by the Board on March 11th, 2008.
- b. Adopt proposed protocols and operational practices for the prevention of Quagga mussel introduction into Cachuma Lake as recommended by the Ad Hoc Committee.
- c. Direct staff to continue to work with Cachuma Operations and Maintenance Board (COMB), water purveyors and other appropriate agencies for funding assistance on current and future Quagga prevention alternatives.
- d. Approve a waiver of bid for timely procurement of a permanent Quagga wash station.
- e. Provide direction to staff on the protocols and operational practices presented to prevent the introduction of the Quagga mussel into Cachuma Lake.

Summary Text:

At the Board of Supervisors March 11th meeting, the Board established an Ad Hoc Committee comprised of Chairman Carbajal, Supervisor Firestone, COMB, County staff and other interested parties to review existing protocols and discuss proposed revisions to the County's current practices regarding prevention of Quagga mussels at Cachuma Lake. The Ad Hoc Committee meeting held on March 17th resulted in consensus by all parties on protocols and best practices to ensure that Cachuma Lake remains free of Quagga mussels.

Background:

Meeting Outcomes

The protocols and best practices agreed upon by the Ad Hoc Committee include:

- Secure temporary pressurized hot water wash stations and accelerated procurement of a permanent station. Discussions are currently ongoing and will continue with regards to possible assistance with funding for the permanent wash station and current and future Quagga prevention alternatives.
- Properly trained staff on Quagga inspection and treatment program.
- Increase inspection, treatment and launch staff during the Trout Derby to ensure thorough inspection and treatment protocol.
- Secure Quagga K9 dog from Sate Department of Fish and Game for Trout Derby.
- Expansion of boat quarantine space at the lake to accommodate anticipated need.
- Comprehensive public information campaign.

Prior to the March 17th Meeting, Current Preventative Measures Being Undertaken by Parks

The County Parks Department took the following steps at Cachuma Lake to prevent introduction of the Quagga mussel into the lake and other regional lakes when the Quagga mussel was first detected in California in January 2007:

- Informational signs were posted at the park entrance, boat launching area, bait and tackle shop, and fish cleaning stations
- Fliers about the invasive mussel were distributed to all boaters entering the park
- Boaters were verbally screened to determine whether they had been in any infected waters
- All ranger staff at the park viewed an instructional boat inspection video
- Management for the UCSB rowing team were notified and asked to decontaminate vessels before reintroduction to Cachuma Lake
- A determination was made that the trout plant contractor for Cachuma Lake did not have any contact with contaminated waters
- A determination was made that the Fillmore Fish Hatchery does not receive water from Lake Piru, a recreational boating reservoir
- A logging system/spreadsheet was created to track Quagga mussel management actions implemented at regional lakes
- A Quagga Mussel Central Information Folder for Parks staff was created on a shared drive on the Parks Department's computer system containing the following documents and information:
 - History of the spread and ecology of the Quagga mussel
 - Fliers and educational materials for the public
 - Management strategies and recommended actions
 - Quagga mussel monitoring and boat inspection forms

Lake Monitoring Actions

County Parks follows monitoring protocols established by the Center for Lakes and Reservoirs, Portland State University, and adopted by the California Department of Water Resources and the California Department of Fish and Game. Monitoring inspections are conducted monthly in the Cachuma Lake marina. Visual and tactile inspections are conducted on the docks, the shoreline, anchor lines, log booms, the boat hanger, and all park watercraft. In addition, monitoring stations are being set up on

nylon lines at varying depths at the marina. Parks is also in the process of establishing a diving inspection in the marina.

Attached is the most recent Quagga Mussels inspection report for Lake Cachuma (attachment 3).

Parks has also completed a survey to participate in a pilot training program in the spring of 2008 for early detection and monitoring of Quagga mussels and other freshwater invasive invertebrates. This training program is being offered by the University of California's Cooperative Extension Program and the California Sea Grant Extension Program.

Increased Management Actions

Increased management actions were begun in December 2007 and are consistent with protocols at this level of risk (i.e., no mussels, but moderate-to-high risk, based on risk assessment in the National Park Service document, "*Quagga/Zebra Mussel Infestation Prevention and Response Planning Guide*"). These actions are beyond measures being taken at all other lakes in the south coast region, with the exception of Lake Casitas.

Vessel Survey and Inspection:

- Administered to all boaters
- Boats must have a dry bilge, dry wet well, and clean undersides
- Copies of surveys are kept on file and CF numbers are kept in database (P:/Icons: Boat Inspections)
- Inspections are conducted, beginning in the morning when the lake opens
- Frequent boaters are given an abbreviated interview
- Live bait is limited to on-site vendors and night crawlers

Further Preventative Measures Being Considered:

- Restrictions through revisions to contractual language (i.e., stipulated in language of permits and agreements):
 - Fishing tournaments permits
 - Trout plant contract
 - UCSB rowing team agreement
- Boat inspection:
 - Boat washing stations. Temporary Stations in place pending purchase and installation of permanent wash stations.
- Additional monitoring:
 - Diving
 - Plankton tows for early detection

Contacts:

Cachuma Lake staff have been in contact with representatives from various agencies and organizations regarding the Quagga mussel issue since January 2007, including the California Department of Fish and Game, Department of Water Resources, Department of Food and Agriculture, and Department of Boating and Waterways; the Minnesota and Wisconsin Departments of Natural Resources; the Montana Department of Fish, Wildlife and Parks; the U.S. Army Corps of Engineers; the National Park Service; the U.S. Bureau of Reclamation; the Pacific States Marine Fisheries Commission; the University of California/Cooperative Extension Program; and the California Sea Grant Program.

Subject: Public Hearing to Consider Alternatives to Prevent Introduction of the Quagga Mussel to Cachuma Lake

Agenda Date: March 25, 2008

Page: 4 of 5

Training:

February 2007:

(1) Boat Inspection Training DVD: *The Battle to Prevent the Spread of Zebra Mussels on Trailered Watercraft*, Pacific States Marine Fisheries Commission. All Cachuma staff viewed this video.

January 2008 and March 2008:

1) Boat Inspection Training presented by the Pacific States Marine Fisheries Commission and sponsored by the California Department of Fish and Game (attended by Park Ranger III and Park Naturalist at Cachuma).

2) Boat Inspection Training, Casitas Lake, for seasonal staff. Parks staff attended for observational purposes.

3) Boat Inspection Training DVD: *The Battle to Prevent the Spread of Zebra Mussels on Trailered Watercraft*, Pacific States Marine Fisheries Commission. All current Cachuma staff viewed this video.

History and Background on the Quagga Mussel

The Quagga mussel is a non-native aquatic nuisance freshwater mollusk originating in Eastern Europe that clogs waterways, undermines healthy lake ecosystems, and creates costly maintenance for water resource agencies. Quagga mussels were introduced into the Great Lakes region in 1988 through ballast water emptied from ships and have spread throughout the Midwest and the eastern portion of the United States.

Quagga mussels were first discovered in California in Lake Mead and the Colorado River system in January 2007 and have recently been found in several Southern California lakes connected to the Colorado River via aqueducts and canals. The spread of the Quagga mussel in Southern California is believed to have advanced through those aqueducts and canals via water conveyance systems. In addition to passage through the water conveyance process, the Quagga mussel can also be spread by other alternative methods including but not limited to: (1) Adult mussels that have adhered to surfaces, such as boat hulls, are introduced to a water body or system, or; (2) Microscopic forms, such as "veligers", that live in the water column and could survive in water carried by recreational boats in bilges, live wells, and other areas where water could pool and remain, are transported into a water body or system.

The spread of the Quagga mussel in California is becoming a significant concern due to the economic impacts associated with their introduction and proliferation. Quagga mussels cause the greatest economic damage when they infest pipes, pumps, or other components of municipal and industrial water supply systems, or power plant cooling systems.

In addition to the potential damage on water purveyance systems, Quagga mussels can seriously disrupt and negatively affect the ecosystem of freshwater lakes and rivers. Once a water system is infested, the measures required to eradicate the Quagga mussel can have serious detrimental effects on the recreational aspects of a freshwater lake or river system. In addition, preventative measures taken, such as screening, inspection, and decontamination of boats, outright banning of boating, etc., can also have detrimental impacts on boating and fishing and other recreational activities, as well as cause spillover effects on local businesses that derive economic benefits from these recreational activities.

Fiscal and Facilities Impact:

To date County Parks has absorbed all costs of implementation of Quagga Program via deferral of parks maintenance activities and reassignment of staff.

Subject: Public Hearing to Consider Alternatives to Prevent Introduction of the Quagga Mussel to Cachuma Lake

Agenda Date: March 25, 2008

Page: 5 of 5

In an effort to detail the fiscal impacts, the attached spreadsheet (attachment 4) examines fiscal impacts related to the FY 2007-08 Trout Derby and remainder of the fiscal year for staff (\$53,400), public outreach (\$10,000), initial rental and purchase of two pressure washers (\$12,400), and a Quagga Dog and handler (\$13,000 for handler, food and eventual purchase of dog and associated veterinarian costs). Total estimated costs for FY 2007-08 are \$97,680. Cost estimates of \$469,040 for FY 2008-09 and \$171,600 for FY 2009-10 an ongoing are also detailed in attachment 4.

Currently these 2007-08 outlined costs and future program costs (2008-09 through 2009-10) are all unfunded within the Parks budget and the General Fund. At this time in order to appropriate funds for this program all of the remaining Board General Fund Contingency would have to be drained (currently at \$267,500) with the balance from Strategic Reserve as there are no other funding sources available within the General Fund. Therefore staff will continue to work with COMB, water purveyors and other appropriate agencies for funding assistance and cost sharing on current and future Quagga prevention alternatives.

Staffing Impacts:

Legal Positions:

0

FTEs:

3.5

Special Instructions:

NA

Attachments:

- Attachment 1 – Proposed Protocols
- Attachment 1A – Proposed Protocols Flowchart
- Attachment 2 – Public Notice of New Protocols
- Attachment 3 – Most recent Quagga Mussel inspection report
- Attachment 4 – Fiscal Impacts Spreadsheet

Authored by:

Jeff Stone, Deputy Director of Parks

John Jayasinghe, CEO Fiscal & Policy Analyst

cc:

- Terri Maus-Nisich, Assistant County Executive Officer
- William Boyer, County Communications Director
- John Jayasinghe, CEO Fiscal & Policy Analyst
- Mike Gibson, Parks Business Manager
- Mitch Medeiros, Cachuma Lake Park Operations Manager
- Liz Mason, Parks Naturalist

Santa Barbara County Cachuma Lake Park

Interim Boat Launching Protocol - March 2008

The County of Santa Barbara is implementing the following interim inspection and treatment protocol for all recreational boats and trailers registered in California prior to accessing Cachuma Lake to help prevent the spread of the Quagga and Zebra Mussels.

All **out-of-state boats** will be prohibited from Cachuma Lake unless kept in quarantine on site at Cachuma Lake for a minimum of 14 consecutive days. In addition, boats registered in certain Counties in California will also be required to be quarantined on site at Cachuma Lake for a minimum of 14 consecutive days if that **County contains infected waters**.

The following procedures will be followed effective March 25, 2008 and will remain in effect until further notice.

In addition to meeting the conditions set forth below for the inspection, treatment and/or quarantine of boats and boat trailers, the owner of any boat and trailer seeking launch privileges at Cachuma Lake County Park must sign an affidavit attesting that: 1) the boat and trailer have not been in waters infested by Quagga or Zebra Mussels within the past 30 days; and 2) that no live bait other than commercially purchased worms and nightcrawlers are in possession.

Conditions that Result in Prohibited Boating Access to Cachuma Lake

The County of Santa Barbara will prohibit access to Cachuma Lake County Park for any California-registered boat and trailer that violates any of the following requirements. Boats and trailers not conforming to these requirements will be denied entry, or, if the owner wishes to camp or enter the Park for day use, be prohibited from launching the boat.

- **Clean and Dry**

All boats and trailers entering Cachuma Lake County Park will be inspected and must be Clean and Dry.¹ Boat hulls must be free of foreign matter. All bilges, live wells, bait tanks, integral coolers, or any other compartment within the boat must be clean and dry.

- **All Drain Plugs Removed**

All boats entering Cachuma Lake County Park must first have all drain plugs removed from the hull, bait tanks, live wells, integral cooler compartments, or any compartment that has the potential to retain water prior to transport that day. Any boat found with a plug installed upon entry will be turned away unless meeting certain criteria.

- **Boats Longer than 24 Feet Will Be Quarantined**

All boats that are 24 feet in length or greater are prohibited from entry unless meeting certain quarantine criteria².

Inspection and Treatment of Boats Prior to Launching

Visual Inspection

Boats and trailers without a Boat Launch tag that meet the following conditions will be required to pass a visual inspection prior to being allowed into Cachuma Lake Park. Visual inspection will verify that the boat is **Clean and Dry** with a clean hull; no containment of any water in any on board compartments. All live wells, integral coolers, bait tanks, bilges, etc will be Clean and Dry before being allowed to proceed to treatment and launch.

Post-Inspection Treatment

Boats and trailers that pass the Visual Inspection will be required to be treated with a heated power wash treatment³ prior to being cleared for launch in Cachuma Lake.

Santa Barbara County Cachuma Lake Park

Interim Boat Launching Protocol - March 2008

Any boat which has water that discharges from the outboard motor or sterndrive unit will be required to be started and flushed for a period of no less than 5 minutes.

Quarantined Boats

Boats and trailers that have been quarantined⁴ within the confines of Cachuma Lake County Park will be allowed to launch at Cachuma Lake as follows.

All boats that are 24 feet in length and longer that have been inspected to be clean and dry upon entry to the Park may enter an approved Parks Department Storage Yard and must remain there for a period of no less than 14 consecutive days prior to being permitted to launch.

All out-of-state boats, regardless of length, will be denied access to Cachuma Lake unless quarantined on site for 14 consecutive days.

Boats With a Santa Barbara County Boat Launch Tag

Santa Barbara County will develop a system that upon clearing the required criteria to launch, the boat owner may request the installation of a Boat Launch Tag that will expedite re-entry to Cachuma Lake. The device will identify that the boat has not been removed from the trailer and thus has not been in any other waters after existing Cachuma Lake County Park. The new system will expedite visual inspections and the clearing of launch requirements for many local boaters.

Rental Boats and Boats Residing in the Marina

Boats that meet the following criteria are allowed continued access to Cachuma Lake.

- **Privately Owned Boats Moored at Cachuma Lake**

Boats that are currently moored at the marina and are not removed from the Park, or boats that meet the above criteria to enter the lake and then are moored in the marina.

- **Permanent Cachuma Lake Boats**

Boats that are owned and operated by the County approved rental boat concessionaire that are permanently used and stored at Cachuma Lake.

- **County-owned Boats at Cachuma Lake**

Boats and trailers that are owned and/or operated by the Santa Barbara County Parks Department that reside at Cachuma Lake.

Transportation of Live Bait

As an additional precaution to prevent the transport of invasive mussels, no live bait, other than commercially purchased worms and nightcrawlers will be allowed into Cachuma Lake. All other live bait including water born bait (minnows, crawdads, etc) are strictly prohibited.

Notes:

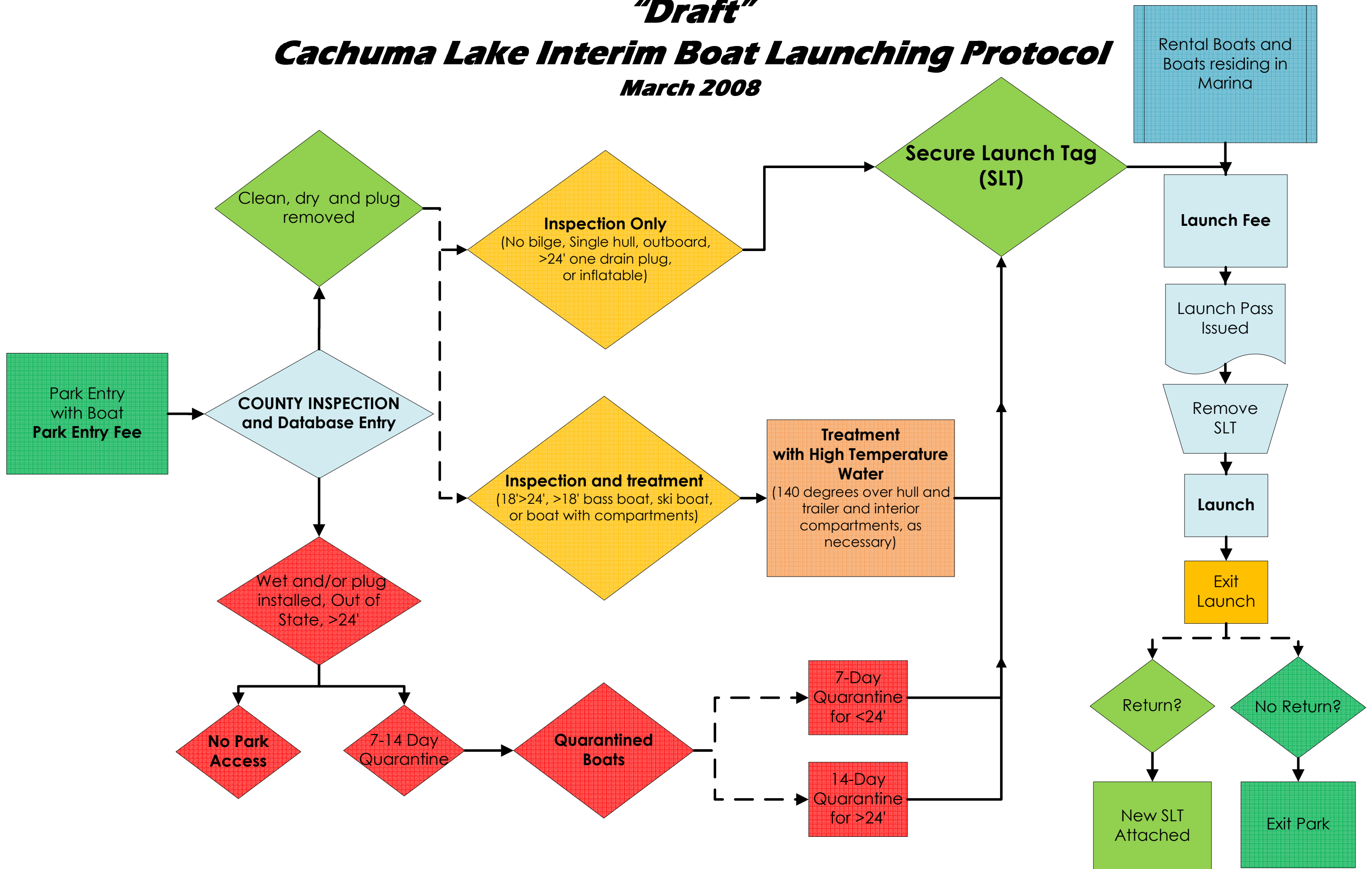
Note 1 – Clean and Dry is defined as boat having no attached matter, vegetation, mud, dirt; and being completely dry to the touch. The outside of the hull is to be free of foreign matter, and the inside of the boat, including all bilges, live wells, integral coolers, and bait tanks are to be dry and free of foreign matter.

Note 2 – Boats of 24 feet and greater have been identified as possessing the greatest risk of transmitting invasive mussels and therefore are specifically treated in a different manner.

Note 3 – Treatment will consist of high temperature washing of 140 degree water over the hull and trailer. If determined necessary by Park staff, areas of water storage such as bilges, live wells, and bait tanks may also require treatment.

Note 4 – All out-of-state boats, regardless of length, will be denied access to the Lake unless quarantined on-site for 14 consecutive days. Quarantined boats must be stored within an approved Parks Department storage area at Cachuma Lake Park for the specified time frame prior to being approved to launch. The California Department of Fish and Game recommends a 5 day dry period to ensure no spread of invasive mussels. Santa Barbara County has expanded this period to 7 days for boats under 24 feet in length and 14 days for boats and trailers 24 feet and longer.

“Draft”
Cachuma Lake Interim Boat Launching Protocol
March 2008





NOTICE TO ALL BOAT OWNERS SEEKING LAUNCH ACCESS AT CACHUMA LAKE

The Santa Barbara County Parks Department
Announces New Inspection Protocol For All Boat
Owners Seeking Launch Access at Cachuma Lake

To help prevent the introduction of Quagga & Zebra mussels,
ALL boats will be subject to inspection, treatment and/or quarantine
before allowed to launch at Cachuma Lake.

- **ALL boats and trailers** must be **CLEAN** and **DRY**
- **ALL DRAIN PLUGS** must be removed prior to boat transport that day
- **ALL boats longer than 24 feet** will be **quarantined** on-site for 14 days before being allowed to launch
- **ALL out-of-state boats** will be **quarantined** on-site for 14 days before being allowed to launch
- **ALL California boats with registration addresses near known infected lakes** will be **quarantined** on-site for 14 days before being allowed to launch
- **ALL boats and trailers** will be thoroughly inspected and treated by hot pressure wash per the Interim Boat Launch Protocol posted on the Cachuma Lake website:

www.cachuma.com

•**Special Info for Trout Derby April 19-20, 2008**•

Boat Owners participating in the Annual Trout Derby are encouraged to **bring boats early for inspection!** **Boat Inspections** can be done now. Boats can be stored on site or secured with Boat Launch Tag to speed re-entry to Park.

**For more information call the
Trout Derby Hotline at (805) 693-8381
Or go online: www.cachuma.com**

Quagga Mussel Monthly Inspection - Cachuma Lake Marina

Summary: NO MUSSELS FOUND. Survey results are below.

Date Inspected: 13 March 2008 by Melissa Kelly

Lake Elevation: 753 Feet

10 stations have been placed in the marina. Each sampler is a 7 x 7 inch cinder block with a 10-inch PVC pipe suspended horizontally just above the cinder block. Line material is yellow plastic boating line.

Also surveyed four random spots on each dock and found no evidence of quagga mussels. MK

3 Stations @ 15-foot depth

4 Stations @ 25-foot depth

1 Station @ 45-foot depth

2 Stations @ 65-foot depth



Cachuma Lake Quagga Mussel Ad Hoc Committee

Estimated Fiscal Impacts of Quagga Mussel Boat Launch Program at Cachuma Lake

<u>FY 2007-08</u> <u>(April, 2008)</u>	<u>FY 2007-08</u> <u>(May - June, 2008)</u>	<u>FY 2008-09</u>	<u>FY 2007-08</u> <u>& 2008-09</u>	<u>FY 2009-10</u>
Trout Derby Program	Interim Boat Launch Inspection Program	Permanent Boat Launch Inspection Program	2007-08 & 2008-09 Boat Launch Inspection Program	Ongoing Boat Launch Inspection Program
Revenue:*	Revenue:**	Revenue:***	Revenue:***	Revenue:***
\$0	\$7,300	\$60,500	\$67,800	\$60,500
Expenditures:	Expenditures:	Expenditures:		Expenditures:
Staffing Costs = \$17,800 (includes Indirect Cost Rate)	Staffing Costs = \$35,600 (includes Indirect Cost Rate)	Staffing Costs = \$149,500 (includes Indirect Cost Rate)	\$ 202,900	Staffing Costs = \$149,500 (includes Indirect Cost Rate)
Public Outreach and Education Costs = \$5,000	Public Outreach and Education Costs = \$5,000	Public Outreach and Education Costs = \$2,500	12,500	Public Outreach and Education Costs = \$2,500
Rental of 2 Pressure Washers (@\$300/week) = \$2,400			2,400	
	Purchase of 2 Pressure Washers (@\$5,000 ea.) = \$10,000		10,000	
Borrow Quagga Dog from State Fish & Game = \$1,000 (food & handler estimate)	Purchase 1st Quagga Dog = \$12,000 (\$10k + \$2k Vet and food estimate)	Purchase 2nd Quagga Dog = \$12,000 (\$10k + \$2k Vet and food estimate)	25,000	Vet and Food for 2 Quagga Dogs = \$4,000 (\$2k ea. Vet and food estimate)
		Purchase of Boat Washing/Decontamination Station = \$242,400	242,400	
		Cost to Create Record-Keeping Database = \$20,000	\$ 20,000	
Contingency = 10%	Contingency = 10%	Contingency = 10%	Contingency = 10%	Contingency = 10%
<u>\$28,820</u>	<u>\$68,860</u>	<u>\$469,040</u>	<u>\$566,720</u>	<u>\$171,600</u>
<u>\$28,820</u>	<u>\$61,560</u>	<u>\$408,540</u>	<u>\$498,920</u>	<u>\$111,100</u>
*Assumes no fee would be able to be put in place until June.	**Assumes an additional \$10 per boat inspection cleaning fee would be in place for only the last month of FY 2007-08 (June).	***Assumes an additional \$10 per boat inspection cleaning fee would be in place for the entire fiscal year. Would be an additional \$30 per boat approximately (an increase from \$16 to \$46 or 188%) for a full cost recovery program.		
Note: Since boat users already pay \$16 per day (\$8 day use fee, plus \$8 boat launch fee), it is staff's judgment that an additional \$10 per boat inspection cleaning fee higher than \$10 per boat (an increase from \$16 to \$26 or 63%) would be too cost prohibitive to the user and significantly discourage boat usage at the lake.				