

**DESCRIPTION**

The Walker Creek watershed covers 73 square miles in West Marin County, an area of rolling hills to steep gullies. The majority of the watershed is private property, and the major land uses are livestock ranching and dairies. The creek is a protected habitat for coho salmon (the native run is generally extirpated, but Calif. Dept. of Fish and Game has recently reintroduced coho on an experimental basis), steelhead trout, and California freshwater shrimp. Major tributaries are Chileno Creek and Keys Creek.

The Walker Creek watershed is highly impacted by sedimentation from eroding banks due to the native geology and past and current grazing practices. The watershed has also been subjected to high levels of mercury from the mining operations of the Gambonini Mine from 1964 to 1970 and the subsequent legacy contamination found in sediments in the upper tributaries (Chileno and Salmon Creeks) and mainstem Walker Creek, as well as in sediments transported to Tomales Bay. Transport of mercury to the Bay has lead to health advisories for fish consumption. Walker Creek is listed for sediments, nutrients, and mercury. It is also considered impaired for pathogens due to high levels of fecal coliform.



Walker Creek

(Photo courtesy KRIS

[http://www.krisweb.com/kris\\_wms/krisd/b/webbuilder/wc\\_p13.htm](http://www.krisweb.com/kris_wms/krisd/b/webbuilder/wc_p13.htm)).

For more photos, visit the California Coastal Records Project: [www.californiacoastline.org](http://www.californiacoastline.org).

**REASON FOR CCA IDENTIFICATION**

Walker Creek is a 2002 303(d)-listed **impaired waterbody that flows into a Marine Protected Area** (Tomales Bay, part of the Gulf of the Farallones National Marine Sanctuary).

**POLLUTED RUNOFF CONDITIONS**

	Top 5 Runoff Pollutants of Concern					Efforts to Address Pollutants (See next page)
	2002 303(d)-Listed Pollutants TMDL Priority (& Proposed Completion if available)				Other Pollutant of Concern	
Selected Coastal Zone Waterbodies	Mercury	Nutrients	Sediment	Pathogens	?	
Walker Creek ▲	▲ Medium	▲ Medium	▲ Medium	[▲] <sup>1</sup>		a, b, c, d, e, f
Tomales Bay ■	■ Medium	■ Medium	■ Medium	■ High (2004)		a, c, d, e, f
Potential Sources of Pollutants in Coastal Waterbodies						
<b>Agriculture</b>		▲ ■	▲ ■	■ [▲] <sup>1</sup>		a, b, c, d, g, i
➤ Intensive Animal Feeding Operations				■ [▲] <sup>1</sup>		a, b, c, d, g
<b>Forestry (Silviculture)</b>						j
<b>Urban Areas</b>						
➤ Septic				■		a, d
<b>Hydromodification</b>						
➤ Upstream Impoundment			■			b
<b>Wetlands &amp; Riparian Areas</b>						i, j
<b>Resource Extraction</b>						
➤ Surface Mining	▲					e, f, h
➤ Mine Tailings	▲ ■					e, f, h

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<sup>1</sup> Brackets indicate that pathogens are not listed in the 2002 303(d) list for Walker Creek; however, the San Francisco Bay Regional Water Quality Control Board provided information that pathogens are a pollutant of concern for this waterbody.

### MAJOR EFFORTS TO IMPLEMENT NPS MANAGEMENT MEASURES

<b>a)</b>	<b>Pathogens in Tomales Bay, Total Maximum Daily Load, Final Project Report, March 12, 2004</b>		<a href="http://www.swrcb.ca.gov/rwqcb2/tomalesbaypathogenstmdl.htm">http://www.swrcb.ca.gov/rwqcb2/tomalesbaypathogenstmdl.htm</a>
	SF Bay Regional Water Quality Control Board	Farhad Ghodrati	(510) 622-2331 <a href="mailto:fghodrati@waterboards.ca.gov">fghodrati@waterboards.ca.gov</a>
	➤ Total Maximum Daily Load (TMDL) implementation plan to reduce pathogens in Tomales Bay and tributaries.		
<b>b)</b>	<b>Walker Creek Watershed Plan</b>		<a href="http://www.sonomamarinrcds.org/district-mc/">http://www.sonomamarinrcds.org/district-mc/</a>
	Marin Resource Conservation District	Nancy Scolari	(415) 663-1170 <a href="mailto:marinrcd@svn.net">marinrcd@svn.net</a> <a href="mailto:nancy@marinrcd.org">nancy@marinrcd.org</a>
	➤ Grant funded project to prepare geomorphic assessment of Walker Creek watershed and assessment of mercury-laden sediments, sediment loading and transport to Tomales Bay.		
<b>c)</b>	<b>Tomales Bay Watershed Enhancement Program</b>		<a href="http://www.malt.org/news/summer2003archive.htm">http://www.malt.org/news/summer2003archive.htm</a>
	Tomales Bay Agricultural Group/ University of California Cooperative Extension	Dave Lewis	(707) 565-2621 <a href="mailto:djllewis@ucdavis.edu">djllewis@ucdavis.edu</a>
	➤ Landowner-initiated project to address NPS pollution from dairies and rangelands, in cooperation with UC Cooperative Extension, Marin RCD, and NRCS. Implementation projects from fencing to streambank repair.		
<b>d)</b>	<b>Tomales Bay Watershed Stewardship Plan: A Framework for Action, July 2003</b>		<a href="http://www.tomalesbaywatershed.org/stewardship.pdf">http://www.tomalesbaywatershed.org/stewardship.pdf</a>
	Tomales Bay Watershed Council	Neysa King	(415) 663-9092 <a href="mailto:tbwc@horizoncable.com">tbwc@horizoncable.com</a>
	➤ Watershed stewardship plan including outreach, education, and implementation actions to address NPS pollution.		
<b>e)</b>	<b>Walker Creek Mercury TMDL Preliminary Project Report</b>		<a href="http://www.waterboards.ca.gov/sanfranciscobay/tmdlmain.htm">http://www.waterboards.ca.gov/sanfranciscobay/tmdlmain.htm</a>
	SF Bay Regional Water Quality Control Board		(510) 622-2300 <a href="mailto:tmdlinfo@waterboards.ca.gov">tmdlinfo@waterboards.ca.gov</a>
	➤ Mercury Total Maximum Daily Load (TMDL) in progress for Walker Creek; problem statement developed.		
<b>f)</b>	<b>Walker Creek Geomorphic Assessment</b>		<a href="http://www.sonomamarinrcds.org/district-mc/">http://www.sonomamarinrcds.org/district-mc/</a>
	Marin Resource Conservation District	Nancy Scolari	(415) 663-1170 <a href="mailto:marinrcd@svn.net">marinrcd@svn.net</a> <a href="mailto:nancy@marinrcd.org">nancy@marinrcd.org</a>
	➤ Grant funded project to prepare geomorphic assessment of Walker Creek watershed and assessment of mercury-laden sediments, sediment loading and transport to Tomales Bay		
<b>g)</b>	<b>Tomales Bay Watershed Baseline Sediment Assessment and Monitoring Program</b>		<a href="http://water.usgs.gov/nps_partnership/projects.html">http://water.usgs.gov/nps_partnership/projects.html</a>
	National Park Service & USGS	Brannon Ketcham	(415) 464-5192 <a href="mailto:brannon_ketcham@nps.gov">brannon_ketcham@nps.gov</a>
	➤ USGS sediment study of Tomales, Lagunitas and Walker Creeks; implementation plan final draft 12-04.		
<b>h)</b>	<b>US EPA Final Project Plan for Giacomini Mercury Mine</b>		
	SF Bay Regional Water Quality Control Board	Jill Marshall	(510) 622-2388 <a href="mailto:jmarshall@waterboards.ca.gov">jmarshall@waterboards.ca.gov</a>
	➤ Remediation plan for Giacomini mine, stabilization completed under Superfund Program; ongoing monitoring by Regional Board in Gambonini, Salmon and Walker Creeks.		

## Walker Creek CCA

<b>i)</b>	<b>Walker Creek and Stemple Creek Watershed Project</b>			<a href="http://www.sonomamarinrcds.org/district-mc/">http://www.sonomamarinrcds.org/district-mc/</a>
	Marin Resource Conservation District	Nancy Scolari	(415) 663-1170	<a href="mailto:marinrcd@svn.net">marinrcd@svn.net</a> <a href="mailto:nancy@marinrcd.org">nancy@marinrcd.org</a>
➤ Goals are control of soil erosion; education and outreach; protection and improvement of water quality; conservation of rangeland; cropland and forest; support of agricultural economy; riparian habitat restoration.				
<b>j)</b>	<b>Walker Creek Watershed Enhancement Program</b>			<a href="http://www.sonomamarinrcds.org/district-mc/">http://www.sonomamarinrcds.org/district-mc/</a>
	Marin Resource Conservation District	Nancy Scolari	(415) 663-1170	<a href="mailto:marinrcd@svn.net">marinrcd@svn.net</a> <a href="mailto:nancy@marinrcd.org">nancy@marinrcd.org</a>
➤ Grant to implement projects that will restore salmon and steelhead populations in the Walker Creek watershed using riparian fencing, native plant revegetation, alternative water sources, and biotechnical erosion control methods.				

### REGULATORY/PLANNING JURISDICTIONS

➤	Marin County Stormwater Pollution Prevention Program	<a href="http://mcstoppp.org/">http://mcstoppp.org/</a>	Liz Lewis	(415) 499-7226	<a href="mailto:lizlewis@co.marin.ca.us">lizlewis@co.marin.ca.us</a>
➤	Marin County, Community Development Dept.	<a href="http://www.co.marin.ca.us/depts/CD/main/index.cfm">http://www.co.marin.ca.us/depts/CD/main/index.cfm</a>	Thomas Lai	(415) 499-6292	<a href="mailto:tlai@co.marin.ca.us">tlai@co.marin.ca.us</a>
➤	Marin County Farm Bureau	<a href="http://www.cfbf.com/counties/co-21.cfm">http://www.cfbf.com/counties/co-21.cfm</a>	Henri Grossi	(415) 663-1231	<a href="mailto:marincfb@svn.net">marincfb@svn.net</a>
➤	Calif. Coastal Commission, Water Quality Unit	<a href="http://www.coastal.ca.gov/nps/npsndx.html">http://www.coastal.ca.gov/nps/npsndx.html</a>	Lisa Sniderman	(415) 904-5270	<a href="mailto:lsniderman@coastal.ca.gov">lsniderman@coastal.ca.gov</a>
➤	San Francisco Bay Regional Water Quality Control Board	<a href="http://www.waterboards.ca.gov/sanfranciscobay/">http://www.waterboards.ca.gov/sanfranciscobay/</a>	Jill Marshall	(510) 622-2388	<a href="mailto:jamarshall@waterboards.ca.gov">jamarshall@waterboards.ca.gov</a>
➤	State Water Resources Control Board	<a href="http://www.waterboards.ca.gov/">http://www.waterboards.ca.gov/</a>	Heidi Hall	(916) 323-2871	<a href="mailto:hhall@waterboards.ca.gov">hhall@waterboards.ca.gov</a>
➤	California Coastal Conservancy	<a href="http://www.coastalconservancy.ca.gov/">http://www.coastalconservancy.ca.gov/</a>	Karyn Gear	(510) 286-4171	<a href="mailto:kgear@scc.ca.gov">kgear@scc.ca.gov</a>
➤	Calif. Dept. of Fish & Game, Marine Region	<a href="http://www.dfg.ca.gov/mrd/index.html">http://www.dfg.ca.gov/mrd/index.html</a>	Laura Rogers-Bennett	(707) 875-2035	<a href="mailto:rogersbennett@ucdavis.edu">rogersbennett@ucdavis.edu</a>
➤	Calif. Dept. of Fish & Game, Region 3	<a href="http://www.dfg.ca.gov/">http://www.dfg.ca.gov/</a>	Tom Moore	(707) 875-4261	<a href="mailto:tmoore@dfg.ca.gov">tmoore@dfg.ca.gov</a>
➤	NOAA, Gulf of the Farallones National Marine Sanctuary	<a href="http://farallones.noaa.gov/">http://farallones.noaa.gov/</a>	Maria Brown	(415) 561-6622	<a href="mailto:maria.brown@noaa.gov">maria.brown@noaa.gov</a>