

CALIFORNIA WATER QUALITY MONITORING COUNCIL

Monitoring Council Meeting Notes

Thursday, December 12, 2013 – 9:00 AM to 4:00 PM

Training Room 1 East/West – First Floor
Joe Serna Jr. Cal/EPA Headquarters Building
1001 I Street, Sacramento



Monitoring Council Members and (Alternates) in attendance:

Jonathan Bishop	Mike Connor	(Karen Larsen)	Steve Weisberg
Bruce Burton	Sarge Green	Armand Ruby	
Beth Christman	Paul Helliker	(Stephani Spaar)	

Others in attendance or (on the phone):

(Arne Anselm, Ventura County Watershed Protection District)
Shakoora Azimi-Gaylon, Delta Conservancy
(Diane Beaulaurier, Central Valley Regional Water Quality Control Board)
Dori Bellan, State Water Resources Control Board
(Erick Burres, State Water Resources Control Board)
(Aaron Button, State Water Resources Control Board)
Tom Cavanaugh, US Army Corps of Engineers
Jay Davis, San Francisco Estuary Institute
Martha Diepenbrock, California Conservation Corps
Mark Emmerson, California Department of Public Health, Drinking Water Program
Terry Fleming, US Environmental Protection Agency, Region 9
Stephanie Fong, State and Federal Contractors Water Agency
Michael Gjerde, State Water Resources Control Board
(David Harris, Department of Water Resources)
Cliff Harvey, State Water Resources Control Board
Kris Jones, Department of Water Resources—Monitoring Council Coordinator
Brittany Koenker, California Conservation Corps
(Perry Lebeouf, Department of Water Resources)
Carrie Lewis, California Conservation Corps
(Jenny Maloney, John Deere)
Jon Marshack, State Water Resources Control Board—Monitoring Council Coordinator
Eric Oppenheimer, State Water Resources Control Board
(Bill Patterson, Yurok Tribe)
(Steve Steinberg, Southern California Coastal Water Research Project)
(Vyomini Upadhyay, Sacramento Area Sewer District)
Lori Webber, State Water Resources Control Board
Jody Weseman, California Conservation Corps
Liz Whiteman, Ocean Science Trust
Janice Zinky, State Water Resources Control Board

ITEM:	1
Title of Topic:	INTRODUCTIONS AND HOUSEKEEPING
Purpose:	1) Introductions (in the room and on the phone) 2) Review draft notes from August 28, 2013 Monitoring Council meeting 3) Review agenda for today's meeting

Desired Outcome:	a) Approve August 28, 2012 Monitoring Council meeting notes b) Preview what will be covered today and overall meeting expectations c) Adjust today's agenda, as needed	
Attachment Links:	Draft notes from August 28, 2013 Council meeting	
Contact Persons:	Jon Marshack Kris Jones	jon.marshack@waterboards.ca.gov , (916) 341-5514 kristopher.jones@water.ca.gov , (916) 376-9756
Decisions:	Notes from the August 28, 2013 meeting of the Monitoring Council were approved without amendment.	

ITEM:	2
Title of Topic:	ANNOUNCEMENTS AND UPDATES
Purpose:	<p>These are brief informational items that could be expanded into more detailed discussions for future meetings:</p> <ul style="list-style-type: none"> a) Confirm 2014 Monitoring Council meeting dates (Kris Jones) <ul style="list-style-type: none"> • February 19 – Sacramento • May 28 – Costa Mesa • August 27 – Sacramento • December 10 – Sacramento b) Potential state stewardship for California's portion of the National Hydrography Dataset and the National Wetlands Inventory (Karen Larsen and Stephani Spaar) c) Delta Science Plan (Kris Jones) <ul style="list-style-type: none"> • How were Monitoring Council comments on earlier drafts addressed? • Potential comments on final draft (published 10/17/13) d) MPA/ASBS monitoring coordination (Kris Jones) <ul style="list-style-type: none"> • Monitoring Council letter to Ocean Protection Council • Ocean Protection Council Meeting of November 21, 2013 e) Meeting with staff of Assembly Committee on Water, Parks and Wildlife (Jon Marshack) f) Other announcements and updates related to the Monitoring Council's mission pursuant to Senate Bill 1070 (Kehoe, 2006)
Desired Outcome:	Information and comment
Background:	b) State Stewardship for NHD and NWI – The Wetland Monitoring Workgroup has recommended on multiple occasions that the State of California establish stewardship for its portion of the National Hydrography Dataset (NHD) and the National Wetlands Inventory (NWI). These maps of the nation's water resources are maintained by the U.S. Geological Survey and the U.S. Fish and Wildlife Service, respectively. A number of local and regional interests have become local stewards for portions of these maps, ground-truthing and refining maps of water resources in various areas of California. For example, the San Francisco Estuary Institute has intensively mapped water resources

	<p>in the Bay Area. The base-map of EcoAtlas, the California Aquatic Resources Inventory (CARI), is based on NHD, NWI, and more intensive and up-to-date mapping efforts performed by SFEI and others. For the results of these more intensive mapping efforts to be made available to others and to maintain a master map of California's water resources for various purposes, these mapping efforts need to be fed back into the NHD and NWI national maps. Having a state steward would help to coordinate and facilitate improved mapping of water resources throughout California, would enable easier updating of California's portion of NHD and NWI, and would improve consistent use of a single map of California's water resources. In the 2011 Annual Progress Report, the Monitoring Council asked that the Secretaries of Cal/EPA and the Natural Resource Agency endorse state stewardship of NHD and NWI.</p> <p>c) Delta Science Plan – At the Monitoring Council's August 29 meeting, Rainer Hoenicke of the Delta Stewardship Council presented information on the development of a Delta Science Plan to foster positive collaboration that would improve scientific understanding of Delta resources. Due to the strong overlap between the mission of the Delta Science Plan and that of the Monitoring Council, the Monitoring Council Coordinators submitted comments on the first draft and the Monitoring Council submitted comments on the second draft of the Plan. The thrust of those comments asked that the Delta Science Plan build on existing coordination efforts of the Monitoring Council and its workgroups, rather than start from scratch. A proposed final draft of the Delta Science Plan was released on October 17.</p> <p>d) MPA/ASBS Monitoring Coordination – At the Monitoring Council's May 29, 2013 meeting, during the discussion of ASBS monitoring, Sara Aminzadeh was tasked with drafting a supportive letter from the Monitoring Council to the Ocean Protection Council (OPC) regarding ASBS and MPA coordination, requesting that some of the funds for MPA monitoring be dedicated to integration between MPA and ASBS programs. A draft of that letter was circulated to Monitoring Council Members by email and a final version, signed by Monitoring Council Co-Chairs, was submitted to the Ocean Protection Council on November 15. Sara Aminzadeh attended the November 21 meeting of the OPC to discuss this letter.</p> <p>e) Meeting With Legislative Staff – At the invitation of Delta Conservancy Assistant Executive Officer Shakoora Azimi-Gaylon, Jon Marshack joined Shakoora in a meeting with Tina Cannon Leahy, Principal Consultant to the Assembly Committee on Water, Parks and Wildlife on November 18. The purpose of the meeting was to continue a May 6 discussion of potential legislation to improve access to water resources data. The meetings were prompted by Assembly Bill 378 (Hueso) that was intended to break down current silos of monitoring and research data regarding the Sacramento-San Joaquin Delta.</p>
Attachment Links	<p>b) State Stewardship for NHD and NWI – summary by Kris Jones</p> <p>c) Comments on the final draft of the Delta Science Plan Draft notes from August 28, 2013 Council meeting (see Item #6) Monitoring Council Coordinator Comments on First Draft Delta Science Plan Monitoring Council Comments on Second Draft Delta Science Plan Proposed Final Draft of the Delta Science Plan</p>

	<p>d) Draft notes from August 28, 2013 Council meeting (see Item #2a) Monitoring Council letter to Ocean Protection Council on ASBS and MPA monitoring integration</p>	
<p>Contact Persons:</p>	<p>Kris Jones Jon Marshack</p>	<p>kristopher.jones@water.ca.gov, (916) 376-9756 jon.marshack@waterboards.ca.gov, (916) 341-5514</p>
<p>Notes:</p>	<p>b) State Stewardship for NHD and NWI – Stephani Spaar presented information regarding the ongoing efforts to establish a state steward for California’s portion of the National Hydrography Dataset and the National Wetlands Inventory (for full background, see State Stewardship for NHD and NWI summary document prepared by Kris Jones). While there appears to be some progress regarding stewardship of NHD (e.g., potential joint stewardship exploration), Stephani indicated that further work is needed to find a state steward(s) for NWI. Karen Larsen added that moving forward, that the Monitoring Council’s Data Management Workgroup should assist in the efforts to find a state steward for NHD and NWI.</p> <p>c) Delta Science Plan – Kris Jones distributed a letter with comments on the proposed final draft of the Delta Science Plan (DSP) for review by the Monitoring Council (December 11, 2013). While previous drafts of the DSP acknowledged the efforts of the Monitoring Council and their suggested modifications to previous drafts, Kris noted that the latest draft of the DSP did not reflect a majority of the Monitoring Council’s suggested modifications, which were detailed in their comments on the second draft of the DSP. As a result, the most recent letter re-iterated key points that had not been incorporated in the latest draft of the DSP. Paul Helliker and Mike Conner asked whether there was a need to send another letter, which re-iterates previously made points. Other member of the Monitoring Council felt that it was worth re-emphasizing these points to the Delta Stewardship Council. Jonathan Bishop asked that the Agency Secretaries be removed as ccs in the letter. Armand Ruby also suggested that the first paragraph be modified to emphasize that the Monitoring Council’s previous comments were not addressed. The recommended changes were made during the meeting and the Monitoring Council approved the letter.</p> <p>d) MPA/ASBS Monitoring Coordination – Kris Jones provided an update regarding the Monitoring Council letter to the Ocean Protection Council, which asked for better integration of monitoring programs for California’s Marine Protected Areas (MPA) and Areas of Special Biological Significance (ASBS) (submitted on November 15). The letter highlighted recent efforts of the Ocean Science Trust and SCCWRP to develop rocky reef metrics. Sara Aminzadeh attended the November 21 meeting of the OPC to discuss this letter, and indicated that the letter was well received by those in attendance. She will update the Monitoring Council if any further discussions take place regarding these efforts.</p> <p>e) Meeting With Legislative Staff – Jon Marshack provided details from his meeting on November 18 with Shakoora Azimi-Gaylon and Tina Cannon Leahy (Principal Consultant to the Assembly Committee on Water, Parks and Wildlife). Tina indicated that members of both the State Assembly and Senate who were interested in pursuing new legislation which relates to improved access to water resources data. She felt that the Assembly would likely lead this effort. As the Delta Stewardship Council’s Delta Science Program will be holding a series of summits in spring 2014, Tina would like to</p>	

	<p>wait and see what comes out of that process before proposing any new legislative language; she indicated that new legislation may need to wait until 2015. Jon mentioned that Tina initially was focused on developing legislation that would have a Delta focus; however, after he explained the Monitoring Council's need for action on a statewide basis, Tina seemed convinced that a statewide focus on water resources data may be the appropriate course of action. Tina requested that Jon provide her with 1) an outline of CEDEN's "Minimum Data Elements"; and 2) the cost of creating the connection between the CEDEN and the Water Quality Exchange of USEPA/USGS. The first would more thoroughly explain the breadth of metadata needed to document data quality and the second would provide another cost estimate for improving data access.</p>
<p>Decisions:</p>	<p>a) The Monitoring Council approved the proposed meeting dates for 2014. However, in response to Steve Weisberg's request to change the meeting times (due to his flight restrictions), the Monitoring Council agreed to change the meeting times to 10am to 5pm for those meetings held in Sacramento.</p> <p>c) The Monitoring Council approved the modified comment letter regarding the proposed final draft of the Delta Science Plan.</p>
<p>Action Items:</p>	<p>b) Karen Larsen will consult with her staff regarding the possibility of including the Council of Governments in the group evaluating the needs and costs of NHD stewardship. The Monitoring Council Coordinators (Kris Jones and Jon Marshack) will recommend that the Wetland Monitoring Workgroup and the Data Management Workgroup be involved in the interagency group pursuing joint stewardship of NHD. They will also request an update from the Delta Conservancy regarding the status of their mapping efforts in the Delta.</p> <p>c) Kris Jones will send the letter with comments regarding the proposed final draft of the Delta Science Plan to the Delta Stewardship Council.</p> <p>e) Jon Marshack will provide Tina Cannon Leahy with an outline of CEDEN's "Minimum Data Elements" as well as an estimated cost for creating the connection between the CEDEN and the Water Quality Exchange of USEPA/USGS.</p>

<p>ITEM:</p>	<p>3</p>
<p>Title of Topic:</p>	<p>CALIFORNIA CONSERVATION CORPS' WATERSHED STEWARDS PROJECT</p>
<p>Purpose:</p>	<p>Carrie Lewis of the California Conservation Corps described how the Watershed Stewards Project volunteers are helping the State Water Board and explore how other similar monitoring programs may want to take advantage of this state program.</p>
<p>Desired Outcome:</p>	<p>Information and comment</p>
<p>Background:</p>	<p>The State Water Board is partnering with the California Conservation Corps (CCC) to take advantage of their Watershed Stewards Project (WSP) volunteers to accomplish water quality and flow monitoring and perform watershed and fish population assessments.</p>
<p>Attachment Links:</p>	<ul style="list-style-type: none"> • Watershed Stewards Project – presentation by Carrie Lewis

	<ul style="list-style-type: none"> • Watershed Stewards Project video – via YouTube • Watershed Stewards Project handout • Watershed Stewardship Project website 	
Contact Person:	Carrie Lewis	carrie.lewis@ccc.ca.gov , (707) 725-8601
Notes:	<p>Carrie Lewis of the California Conservation Corps (CCC) presented information regarding the Watershed Stewards Project (a program of the CCC), with the hopes of attracting new sponsors for the program; Carrie mentioned that funding from the program’s current sponsor (AmeriCorps), will no longer be available after this calendar year. The mission of the WSP is to ‘conserve, restore, and enhance anadromous watersheds by linking education with high quality scientific practices.’ While the program’s initial focus was on fisheries, they now desire to expand into other areas. Partner agencies contract through WSP for employees who conduct monitoring and restoration related work. During the presentation, Carrie presented a video which provided an overview of the WSP and its background, along with a series of testimonials from current and former WSP staff and partner agencies. WSP can be a source of future departmental employees. 38 WSP alumni are currently employed by the Department of Fish and Wildlife. Following Carrie’s presentation Terry Fleming enquired about the costs to contract through WSP. Carrie mentioned that on average a partner agency should expect to pay \$10,000 per year per member; however, she noted that the cost varies, that there is a sliding scale for non-profits, and that overall costs will increase as AmeriCorps funding goes away. Jonathan Bishop mentioned that the State Water Resources Control Board is currently very happy with their staff from WSP. Armand Ruby asked why funding was no longer available through AmeriCorps. Carrie mentioned that AmeriCorps was never intended to be an ongoing funding source, which is why the WSP is currently looking for key partnering agencies.</p>	

ITEM:	4	
Title of Topic:	SAFE-TO-DRINK PORTAL MOCKUP	
Purpose:	Mark Emmerson of the Department of Public Health presented a mock-up of a new Safe-to-Drink Portal to be linked from the My Water Quality website .	
Desired Outcome:	Approval to build Safe-to-Drink Portal	
Background:	<p>A workgroup and portal devoted to the safety of water for drinking and related uses were envisioned as part of the Monitoring Council’s recommended Comprehensive Monitoring Program Strategy for California. The Department of Public Health (CDPH), Division of Drinking Water and Environmental Management is leading this effort. Funding was supplied by the State Water Board for portal development assistance by staff of the Southern California Coastal Water Research Project and the Water Education Foundation (WEF). The Safe Drinking Water Workgroup was assembled, drawing staff from CDPH, WEF, the State Water Board, Department of Water Resources, the Association of California Water Agencies, Environment Now, and the Carmichael Water District. An update on this effort and a list of portal questions were presented to the Monitoring Council at the November 29, 2012 meeting. Mark Emmerson presented an update on portal development at the May 29, 2013 Monitoring</p>	

	<p>Council Meeting and Bruce Burton provided another update at the August 28 Monitoring Council meeting. Comments included the following:</p> <ul style="list-style-type: none"> • The portal needs to explain what the presented data mean, more than simply referencing MCLs; discuss health issues involved. • Source water information needs to be integrated, including groundwater quality information from the Water Board’s GeoTracker GAMA system. • A map should also be included to show which surface waters are listed as impaired for drinking water-related beneficial uses, similar to maps presented in the Safe-to-Eat and Safe-to-Swim portals. <p>Since its formation, the workgroup has held a number of meetings to develop portal content and build the mockup, using assistance from SCCWRP and WEF.</p>		
<p>Attachment Links:</p>	<ul style="list-style-type: none"> • Safe-to-Drink Portal mockup • Safe Drinking Water Workgroup web page • Draft notes from August 28, 2013 Council meeting (see Item #2d) • Notes from May 29, 2013 Council meeting (see Item #2f) • Notes from November 28, 2012 Council meeting (see Item #4) 		
<p>Contact Person:</p>	<table border="1"> <tr> <td data-bbox="418 835 737 905">Mark Emmerson</td> <td data-bbox="737 835 1494 905">memmerso@cdph.ca.gov, (916) 445-6190</td> </tr> </table>	Mark Emmerson	memmerso@cdph.ca.gov , (916) 445-6190
Mark Emmerson	memmerso@cdph.ca.gov , (916) 445-6190		
<p>Notes:</p>	<p>Mark Emmerson (CDPH) presented the mockup of the Safe-to-Drink Portal in order to seek approval from the Monitoring Council to move forward with its development. During his presentation, Mark went over the different sections of the portal. Various members of the Monitoring Council applauded Mark and the workgroup for their efforts, and spoke very highly of the portal mockup. However, there was some concern regarding how the mockup discussed raw (untreated) and finished (treated) water. When discussing the tap water page, Mark acknowledged that there is currently an issue with differentiating between raw water and finished water due to ‘blending’; Mark pointed out that the database currently does not distinguish between sample data for raw and finished water, but indicated that the workgroup would continue to develop this as they move forward. Drinking water systems do not necessarily test their finished water for contaminants for which concentrations are below MCLs in their raw water or for which their finished water is expected to be in compliance with MCLs due to blending. Jon Marshack pointed out that users will be referred to the Consumer Confidence Reports (CCR) in those instances where data are missing from the database. Mike Conner asked how often values have gone above the Maximum Contaminant Level (MCL) in California. Bruce Burton mentioned that to violate the MCL, there has to be a four quarter average exceedance of the MCL to be considered an official exceedance, which rarely has occurred. Mike expressed concern that if the user of the portal accesses data regarding raw water and sees an exceedance of the MCL, that this might raise concerns. Bruce acknowledged that there is disagreement amongst the workgroup members regarding how to approach this (e.g., whether to provide data for raw water). However, after hearing the discussion regarding providing data for raw and/or finished water, Armand Ruby emphasized that the portal should provide both. Bruce emphasized that if they were to provide those data that this information would need to be adequately explained for the consumer. Mike asked how many enforcement actions there have been. Bruce mentioned that there have been around 1600 citations since 2010, most of which were due to a failure to monitor. Armand asked that enforcement actions by source be added to the portal in the future. Jonathan Bishop mentioned that he did not</p>		

	<p>understand why these data are not more easily distinguishable in the database—why data can be filtered for the finished water, but not for the raw water. Armand mentioned that he would support ongoing efforts to try and distinguish between these data types (there was general support for this amongst the other members of the Monitoring Council). Dori Bellan indicated that the copy of CDPH drinking water data in GeoTracker GAMA can be filtered to show raw versus finished water data.</p> <p>When viewing the 'Health Effects', Mike mentioned that the units should be consistent throughout the portal (mg/L versus ppm). Mike also was interested whether the workgroup plans to provide any data regarding recycled water. Jon mentioned that currently such data would not be incorporated, but that it would be eventually. Jonathan asked whether there will be a map-based interface for water diversion data provided in the portal (i.e., eWRIMS data for a particular intake). Jon mentioned that at first the intake data would be listed by water system through CDPH's Drinking Water Watch, rather than a map interface; however, the workgroup could work towards making intake and point of diversion data accessible via a dynamic map. Jonathan added that this process might be better facilitated once the CDPH's Drinking Water Program moves to the State Water Resources Control Board.</p> <p>Steve Weisberg and others also discussed the importance of having the portal home page 'catchy' for the user. There was mention of having something similar to the Healthy Streams homepage where the users can navigate via an image. The goal would be to allow users to navigate the portal more easily and find their content of interest more quickly. There was also an interest in tracking portal usage to determine which pages are accessed most frequently by the user. A number of people thought this would be worthwhile, not only for the Safe to Drink portal, but for all of the My Water Quality portals. Jon mentioned that this is something that will be incorporated in the Triennial Audit report. However Terry emphasized that the group should not view such statistics (e.g., web use of the portals) as a gauge for the effectiveness of the Monitoring Council's efforts. Jonathan acknowledged this point, but emphasized that such data would enable the Monitoring Council to determine which pages and information are being used, which would be very useful moving forward.</p> <p>Armand congratulated the group, saying they had done a great job to incorporate the council's previous comments. Terry mentioned that the mockup looks very impressive, and potentially is the most data rich portal thus far. He asked how long it would take to be ready to launch. Mark mentioned that a majority of the portal content is ready; however, over the following months (approximately four) the workgroup will work to get the live content generated and functional.</p>
<p>Decisions:</p>	<p>The workgroup appears to be on the right track with portal development. Members of the Monitoring Council encouraged the workgroup to further develop the database, so that raw and finished water can be more easily distinguished. Also, the Monitoring Council recommends that discussions regarding MCL exceedances be carefully addressed, particularly as they relate to raw versus finished water and Public Health Goals versus MCLs.</p>
<p>Action Items:</p>	<ul style="list-style-type: none"> • Workgroup should begin to build the portal, but should return for additional critique at a later date. • Generate portal usage information for a future Monitoring Council meeting and to be incorporated into the Triennial Audit. • Check with Water Rights eWRIMS to integrate source water diversion

	information by water system.
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ITEM:	5				
Title of Topic:	WATER BOARDS' GROUNDWATER WORKPLAN				
Purpose:	Eric Oppenheimer and Janice Zinky of the State Water Board presented a Groundwater Workplan Concept Paper and background information.				
Desired Outcome:	The State Water Board is interested in Monitoring Council thoughts on the relevance of the proposed framework for groundwater management as well as its applicability to groundwater-related programs statewide.				
Background:	The Water Boards are in the process of developing a workplan that aligns its current groundwater protection efforts and potential actions that the Water Boards could pursue with the ongoing actions of other entities with groundwater management responsibilities. A concept paper has been developed to describe a proposed workplan framework under which the Water Boards' groundwater activities would be organized. The concept paper provides a starting point for discussion and solicits input on a range of groundwater management issues. The State Water Board is meeting with various interests over the next several months to continue the dialogue on the proposed framework, and the combination of existing and proposed actions described in the concept paper. Comments are due by December 18, 2013.				
Attachment Links:	<ul style="list-style-type: none"> • Water Board Groundwater Work Plan – presentation by Eric Oppenheimer • Groundwater Work Plan: Related Groundwater Monitoring Programs – presentation by Janice Zinky • Groundwater Workplan Concept Paper and additional reference materials • Communities that Rely on a Contaminated Groundwater Source for Drinking Water (January 2013) • Recommendations Addressing Nitrate in Groundwater (February 2013) • Public Accessibility to Information about Groundwater Conditions (December 2010) • UC Davis Report on Addressing Nitrate in California's Drinking Water 				
Contact Persons:	<table border="0"> <tr> <td>Eric Oppenheimer</td> <td>eric.oppenheimer@waterboards.ca.gov, (916) 445-5960</td> </tr> <tr> <td>Janice Zinky</td> <td>janice.zinky@waterboards.ca.gov, (916) 341-5897</td> </tr> </table>	Eric Oppenheimer	eric.oppenheimer@waterboards.ca.gov , (916) 445-5960	Janice Zinky	janice.zinky@waterboards.ca.gov , (916) 341-5897
Eric Oppenheimer	eric.oppenheimer@waterboards.ca.gov , (916) 445-5960				
Janice Zinky	janice.zinky@waterboards.ca.gov , (916) 341-5897				
Notes:	Eric Oppenheimer presented the State Water Board's Groundwater Workplan Concept Paper. He provided background regarding the demand for groundwater statewide and indicated that reliance on groundwater varies considerably by region. He provided details of how California compares to several other Western states and emphasized that California currently does not have a statewide groundwater management system. He added that the challenges with regard to groundwater include: 1) Industrial contaminants (point sources); 2) nitrates and salts (non-point sources); and 3) naturally occurring contaminants (e.g., arsenic). Eric indicated that the SWRCB is preparing a workplan to identify and prioritize the groundwater protection actions that will be carried out over the next five years. They envision a future where well equipped local and regional				

groundwater management entities use monitoring information and thresholds to manage and maintain groundwater of sufficient quality at sustainable levels over the long term. The State Water Board will address the use of its resources and authority for complementary actions where local programs are ineffective. Eric indicated that comments were due for the draft paper by December 18th. Once they receive comments on the paper, they will make the recommended revisions before developing a final workplan for Board consideration. Terry asked for ways in which Eric thought the Monitoring Council could help. For example, were there ways in which the Safe to Drink portal could coordinate with the efforts of the Groundwater Workplan? Eric considered the question, but indicated that he felt that the Safe to Drink portal had more of a focus on the consumer, whereas the Groundwater Workplan was developed for resource managers.

Four primary groundwater data sources were identified:

- CASGEM – groundwater level information
- GAMA – groundwater quality information
- Pumping information
- Water rights information

Integration of the above will be a challenge and time-consuming.

In the second half of the presentation, Janice Zinky provided background regarding why the concept paper was developed. She described several pieces of legislation that require the SWRCB to gather and analyze groundwater data and to identify communities that rely on contaminated drinking water. In response to AB 2222, a study was conducted to evaluate California Department of Public Health (CDPH) community water system water quality data, particularly from the most recent CDPH compliance cycle (2002-2010). They found that of 2,027 communities (with 2,584 groundwater-reliant community water systems) that 680 groundwater-reliant community water systems had principal contaminants (i.e., two or more detections above the MCL). She emphasized that the take home message was that nearly all of California's drinking water is safe. Of the 680 community water systems where groundwater quality is an issue, they found that a majority can be treated. However, treatment is costly and often alternative water supplies may be unavailable. Janice mentioned that in some cases contaminated water is served to the public until a solution is implemented.

Janice also discussed work relating to SBX21, a piece of legislation, which relates to nitrates in groundwater. Their pilot study found that nitrate problems in groundwater will likely worsen for several decades; agricultural fertilizers and animal waste applied to cropland are the largest regional sources of nitrates in groundwater. From their study, they found that direct remediation of larger water basins would be extremely costly.

Janice also discussed SB 4, which becomes effective on January 1, 2014. This legislation requires that the California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR) would need to adopt rules and regulations specific to well-stimulation treatments (e.g., hydraulic fracturing). It requires that the Water Boards need to: 1) consult with DOGGR during development of DOGGR regulations; 2) designate qualified third party contractors to perform property owner requested water quality sampling; 3) audit and review sampling and testing conducted by the third party contractors; 4) develop model criteria for groundwater monitoring by July 1, 2015; and 5) implement a regional groundwater monitoring program by January 1, 2016 (large

	<p>scale regional monitoring of oil and gas production areas). All groundwater quality data generated as the result of this legislation will be added to GeoTracker GAMA. While the legislation does not require the data to be turned into information, GAMA staff will attempt to make sense of it.</p> <p>Following the presentation, Mike Conner asked whether the information is public regarding the chemicals used for fracking. Jonathan mentioned that those data are available, and that the companies are required to monitor any chemicals that are used, so that these data can be tracked (even though they may not currently be regulated). Mike also suggested that a joint industry/regulators fact finding taskforce would be very useful.</p>
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ITEM:	6
Title of Topic:	TRIENNIAL AUDIT OF THE MONITORING COUNCIL’S STRATEGY
Purpose:	Representatives of each workgroup of the Monitoring Council presented brief summaries of their triennial progress reports, followed by discussion among the Monitoring Council Members, Alternates, and EPA Liaison.
Desired Outcome:	Guidance to the workgroups and the Monitoring Council Coordinators on the development of the first Triennial Self-Audit
Background:	<p>At the August 28 meeting, the Monitoring Council discussed the need to develop the first Triennial Audit of implementing the Monitoring Council’s Comprehensive Monitoring Program Strategy, as required by SB 1070 [Water Code §13181(h)] and the Memorandum of Understanding between Cal/EPA and the Natural Resources Agency. Since the workgroups are the main instruments to implement the strategy, the Monitoring Council asked that in place of a 2013 annual progress report, each workgroup provide their portion of the Triennial Audit, reviewing their workgroup’s progress implementing the Monitoring Council’s strategy since its publication in December 2010. To guide this audit, the Monitoring Council’s strategy contains a set of six “performance measures.”</p> <ol style="list-style-type: none"> 1) Strategy, objectives, design 2) Indicators and methods 3) Data management 4) Consistency of assessment endpoints 5) Reporting 6) Program sustainability <p>These performance measures are outlined in Section 2.2.2 of the Comprehensive Monitoring Program Strategy, beginning on page 22, along with rating benchmarks for each. More detail on the performance measures and benchmark ratings as they apply to each theme are found in Section 2.1.2 beginning on page 11 and in Appendix 3, Theme-by-Theme Evaluations, beginning on page A16 of the Monitoring Council’s 2008 Initial Recommendations report.</p> <p>Each workgroup was asked to develop a concise factual evaluation of the progress made during the years 2011 through 2013, as measured against the performance measures and rating benchmarks, and to identify:</p> <ul style="list-style-type: none"> • Explicit needs of the workgroup, and • Where increased coordination is needed and from whom <p>The Monitoring Council Coordinators will use the workgroup audit reports to</p>

	develop a draft of the overall Triennial Audit for Monitoring Council approval.	
Attachment Links:	<ul style="list-style-type: none"> • Workgroup Presentations <ul style="list-style-type: none"> ○ Safe-to-Swim Workgroup – by Michael Gjerde ○ Bioaccumulation Oversight Group – by Jay Davis ○ Healthy Streams Partnership – by Lori Webber ○ Ocean and Coastal Ecosystem Workgroup – by Liz Whiteman • Workgroup Progress Reports – Summary Table <ul style="list-style-type: none"> ○ Safe Drinking Water Workgroup ○ Safe-to-Swim Workgroup ○ Bioaccumulation Oversight Group ○ California Wetland Monitoring Workgroup ○ Healthy Streams Partnership ○ California Estuary Monitoring Workgroup ○ Ocean and Coastal Ecosystem Workgroup ○ California Water Quality Monitoring Collaboration Network ○ Data Management Workgroup • Performance Measures and Rating Benchmarks • Notes from November 28, 2012 Council meeting (see Item #7) • CA Senate Bill 1070 (Kehoe, 2006, specifically Section 13181(h)) • Memorandum of Understanding (MOU) establishing the Monitoring Council (see section IV, 4 on page 4) • Comprehensive Monitoring Program Strategy (see page 22) • Monitoring Council's 2008 Initial Recommendations report (see page 11 and Appendix 3) 	
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Notes:	<p>Jon Marshack provided a brief introduction regarding the Triennial Audit, and the workgroup self-evaluations. In their self-evaluations, he indicated that the workgroups were to address the six performance measures and rating benchmarks outlined in Tables 1 and 2 of the Comprehensive Monitoring Program Strategy. A summary table of the workgroup progress reports was handed out. Armand Ruby stressed that this effort is more comprehensive than development of the portals; it is also about improving monitoring programs.</p> <p>The Safe to Drink Workgroup Progress Report was presented by Mark Emmerson (CDPH). Mark re-emphasized that the Safe to Drink Workgroup was still in the developmental stages, so their self-evaluations reflected their status as a newly formed group. With regard to the workgroup's sustainability, Mark mentioned that the CDPH Drinking Water Program has secured three years of funding from UC Davis's Information Center for the Environment (with approximately 1.5 years of funding remaining) to develop the Drinking Water Information Clearinghouse (DRINC), a data intake system that will feed the new portal and will be integrated with the USEPA/USGS Water Quality Exchange (WQX). However, Mark mentioned that he and the rest of the CDPH's Drinking Water Program will be moving to the State Water Board, which introduces a certain level of uncertainty. They are moving forward assuming that they will have the same level of funding and authority once these changes occur.</p>	

Jonathan Bishop added that he has been told that the program's funding will not be cut and that the transition should be relatively smooth. Steve Weisberg wanted the Monitoring Council to take a step back and evaluate whether people have access to the integrated services of monitoring and assessment, including quality controlled data, needed to make decisions. He emphasized that the portal will serve as the vehicle to see whether this is accomplished. Mark indicated that getting good quality data is not the issue. Rather, the difficulty lies with getting these data together and accessible. Speaking generally, Sarge mentioned that the self-evaluations need to have another comment section for the Monitoring Council evaluations of the workgroups. Steve also indicated that the needs of the individual workgroups should be tailored for a higher level audience (e.g., the legislature). Jon mentioned that initially the workgroup self-evaluations will get 'into the weeds', but that these points will be distilled and further developed with such an audience in mind in the Triennial Audit document. Paul Helliker emphasized that Monitoring Council and the workgroups need to be very careful in how they address their recommendations to the legislature. Jonathan Bishop highlighted the importance of a commitment to data transparency. A list of five factors emerged from the conversation:

- Are data accessible?
- Are the data useable?
- Is there increased coordination of monitoring programs?
- Are data gaps being identified?
- Are uniform assessment methods (e.g., scorecards) being developed?

The [Safe to Swim Workgroup Progress Report](#) was [presented](#) by Michael Gjerde (SWRCB). With regard to sustainability, Michael mentioned that the workgroup has experienced inconsistent leadership and commitment from member organizations. He mentioned that there is some inconsistency between counties as to where samples are collected along the coast, but that methods are consistent. There are also data management issues that cause a considerable lag in the state obtaining data quickly from the coastal counties. But there are efforts in the works that should be able to correct these problems within one to two years. Considering the needs of the workgroup, Sarge Green asked what the top priorities are for the group. Michael mentioned that top down leadership support would be at the top of the list. For example, Michael indicated that his superiors have not been supportive of his involvement in the workgroup (others in the workgroup have experienced similar negative pressure). Sarge suggested that members of the various workgroups should be recognized by their Departments for their efforts with the Monitoring Council (e.g., as a sign of support). Michael mentioned that long term funding would also be a high priority, just under leadership support. He added that the coastal monitoring is more sustainable due to the continued funding, and this is not the case for inland monitoring. Terry Fleming expressed concern regarding the possibility of taking away resources from the ocean work to devote to freshwater. Michael mentioned that there is growing freshwater involvement, and that he didn't think there was a risk of decreased resources for the ocean monitoring. Steve Weisberg indicated that California has the best beach monitoring in the world. He added that those data are reported well, citizens have access to those data, and there is a grading system for the public to evaluate those data. He acknowledged that there have been some data flow issues, as the data systems were created more than a decade ago (he said these issues were solvable). However, Steve added that currently there appears to be no intention of turning existing freshwater special studies sampling into a regular monitoring program. Swimming pressure appears to be focused on Southern California ocean

beaches. Does usage/urgency justify a freshwater program? Waterborne illness data would likely drive such an effort. Armand indicated that he thought that it would be reasonable for the workgroup to suggest that the state should improve monitoring for freshwater Fecal Indicator Bacteria, for example. However, Paul Helliker wonders whether the Monitoring Council has the expertise to know where the regulatory agencies should devote their resources. Jonathan Bishop thought that the Monitoring Council should at least acknowledge that they need to encourage consistency (e.g., comparable data between counties).

The [Bioaccumulation Oversight Group Progress Report](#) was [presented](#) by Jay Davis of SFEI. Jay mentioned that the workgroup would benefit from more involvement by the Department of Public Health (e.g., shellfish program). A bioaccumulation symposium was held last year with a goal of broadening participation in the workgroup, but with limited success. Portal update funding is currently limited, but that newly generated data are added as new studies are published. Steve Weisberg asked for a summary of how the workgroup compares to other similar efforts around the country. Jay indicated that for the past seven years (since the beginning of the sport fish survey) that this program has become the best in the country, which has been confirmed by the BOG's annual review panel. However, moving forward it is unclear, as is long-term funding for the program. Other states have maintained monitoring for decades and can display trends, which California has not. Jonathan Bishop lauded the BOG's work to turn data into information with the use of color-coded results on the Safe to Eat Portal.

The [California Wetland Monitoring Workgroup Progress Report](#) was presented by Tom Cavanaugh of the Army Corps of Engineers. Tom discussed the workgroup's success in bringing agencies together in a state-federal partnership; but that even with extensive outreach by workgroup members, some key agencies are not currently participating in the workgroup (e.g., Caltrans, Department of Water Resources, and Department of Fish and Wildlife's lake and streambed alteration agreement program). In addition, Tom mentioned that the group currently lacks a business model for long term funding. He also added that the group would benefit from more collaboration amongst the CWQMC workgroups (e.g., Estuary and Healthy Streams). Tom also mentioned that while the tools that the workgroup has developed (CRAM, standardized wetland mapping, CARI and EcoAtlas) and organized training program have taken hold at many agencies, they currently do not have a home (e.g., a state agency to provide long term management of these tools and datasets). He also indicated that they require top level support to ensure that these tools and data are available across agencies; they need the Agency Secretaries to direct departmental management to provide support through staff involvement. Jon added that the Wetland Monitoring Workgroup is a stellar group; however they are still lacking a push from agency leadership. Steve Weisberg wanted to emphasize that the big picture is that there are no other states that have better coordination of wetland monitoring efforts. These have been developed through the workgroup (e.g., CRAM is a national standard). He added that California has the best wetland information sharing system, but we need to address the shortcomings the group currently faces: 1) there is no business plan for sustainability; 2) the products are not being used to the level that they should be used (bottom-up efforts have not been sufficient; the departmental executive and Agency Secretary levels need to emphasize that these methods need to be used). Jonathan added that he thought that the legislature needs to emphasize this, since support from the Agency Secretaries has not yet been forthcoming. Steve thought that it is the Monitoring Council's responsibility to raise this type of

issue to that higher level. Sarge added that he thought that a marketing plan needs to be developed, so that others (including the legislature) become more aware of these efforts.

The [Healthy Streams Partnership Progress Report](#) was [presented](#) by Lori Webber. Lori discussed the recent accomplishments of the workgroup, including the launch of their portal as well as the completion of the Statewide Integrated Watershed Health Assessment Report. With regard to the topic of sustainability, Lori highlighted that the workgroup does not have any dedicated staff or funding. Though they have been able to carve out funding for the portal, the members of the group have been working on a volunteer basis. Lori also discussed the next steps for the group, emphasizing that they would like to develop a long term strategy to integrate existing datasets to assess the health of streams, rivers and lakes. They would also like to improve the ways in which the user can access and assess these data via the healthy streams portal. She added that the group would also like to seek other agency involvement, and needs to conduct outreach to involve additional key players (e.g., Department of Fish and Wildlife, Nature Conservancy, etc.). Lori expressed an interest in greater collaboration between Monitoring Council workgroups. A workgroup strategy will be developed in 2014 that will identify collaborative efforts that fulfil multiple needs; people will participate if the workgroup is of value to them. Jonathan pointed out that the Monitoring Council should encourage the workgroups to develop more integrated methods and metrics. He indicated that the Monitoring Council should push for these methods to be consistent statewide. He also mentioned that there are data (e.g., chemistry data, CRAM data) that are not being integrated, and that we need to bring in data from different sources to look at these questions. Karen Larsen stated that the workgroup's efforts with EPA to develop the Integrated Healthy Watersheds Assessment is near the top, as compared to similar efforts around the country. Steve Weisberg indicated that he thought that the group has done a lot of great work, similar to the Wetlands Monitoring Workgroup. However, he pointed out that with regard to sustainability, the Healthy Streams Partnership is actually better off than any other group, due their SWAMP funding; SWAMP is a core program of the Water Boards, which has management support, and their methods are being incorporated into regulatory and other water board programs.

The [California Estuary Monitoring Workgroup Progress Report](#) was presented by Stephanie Fong. As Stephanie presented previously to the Monitoring Council at the meeting in August 2013, the workgroup and the portal currently focus on the San Francisco Estuary. Clear challenges include access to data from a wide variety of agencies and the varying quality and formatting of those data. She indicated that moving forward the workgroup expects to encounter some difficulty in getting involvement from other estuaries. In terms of sustainability, the group also expects some difficulty relating to IT support. While the group acquired some startup money from SFCWA to bring on the needed support to develop the portal (e.g., hiring 34North), these funds are not available long term. Also, the group has experienced difficulty in getting staff involvement; Stephanie indicated that to be successful, there needs to be top-down directive to get staff involved in the workgroup.

Stephanie highlighted that since the launch of the portal in October 2013 that the portal has had over 7500 unique visitors, with many visits lasting over seven minutes and some greater than 30 minutes (data acquired from Google Analytics). She indicated that the use of an open platform portal design will benefit the group long term, as it allows the group to modify the portal without the involvement of any specific IT consultant. Stephanie indicated that moving

forward the workgroup would like to further develop relationships with other Monitoring Council workgroups (e.g., Wetlands, Data Management etc.) as well as the Interagency Ecological Program (IEP) and the San Francisco Estuary Partnership. Karen Larsen pointed out that another accomplishment of the workgroup has been developing the interactive D-1641 Delta Water Quality report, thereby freeing up staff that had been working on the former periodic static report. She added that the workgroup has taken a traditional report and made it more accessible. Terry Fleming asked how the group plans to bring on additional involvement from other estuaries. Stephanie indicated that there are currently no solid plans; however, the group has reached out to researchers from other estuaries. The workgroup has also developed a framework for the portal which would allow additional estuaries to be easily incorporated. Steve Weisberg asked what the big picture is for the workgroup moving forward. Is it to look at the current state of estuaries statewide? Is there a need to coordinate monitoring of estuaries in a statewide program? Terry indicated that he felt there is currently little need to coordinate, as each estuary has differing monitoring emphases; however, Steve Weisberg added that the same could be argued for many of the rivers and lakes in different watersheds (which are currently coordinated). Jonathan Bishop added that this point highlights that there is currently no coordinated monitoring program for estuaries in California. There are no metrics of estuary health, even though a great deal of data is being collected statewide. Jonathan added that he felt the Monitoring Council should recommend that consistent statewide metrics of estuary health should be developed. Jon Marshack indicated that the Ocean's workgroup might also be able to help coordinate estuary efforts, as estuaries form the boundaries between pollutant input from the land and ocean/coastal impacts. However, Steve added that moving forward this might require some special consideration, as the issues and indicators of ecosystem health vary considerably between freshwater, estuaries and saltwater.

The [Ocean and Coastal Ecosystem Workgroup Progress Report](#) was [presented](#) by Liz Whiteman of the Ocean Science Trust. The OST has been focused on increasing the use of science in ocean and coastal decision-making. As the newest of the Monitoring Council workgroup efforts, Liz opened by briefly discussing the groups' road mapping effort for the development of the workgroup and portal, indicating that a scoping effort was necessary due to the complexity of ocean related monitoring – the many ecosystems/habitats, the various management frameworks, and the number of issues of public interest on which the workgroup could focus. Due to this complexity, a process is needed to arrive at a technical development strategy or business plan, which amounts to a different first step than the other workgroups have taken. Nevertheless, she indicated that the workgroup is committed to developing an ocean-themed component of the My Water Quality portal and making an effort to coordinate monitoring and assessment efforts. For example, one of the areas on which the group would like to focus is to develop a bridge between the water quality and the living marine resource monitoring communities (e.g., between MPA and ASBS monitoring, Bight '13, rocky reefs, kelp forests). Steven Weisberg agreed with Liz's assessment of the difficulty in applying the Monitoring Council's Strategy to Ocean research, and applauded the group in their efforts to develop a portal and workgroup roadmap. However, as the workgroup has still not been formed, he suggested that the group conduct their audit at a later time (e.g., the next Triennial Audit). Others in the group agreed that it was too early for this group to provide a self-evaluation, but it is encouraging that the Monitoring Council has caused this process to be initiated.

	Following the workgroup presentations, Karen Larsen wanted to point out that there are items in the legislation (SB 1070) and MOU that are not tasked for a specific workgroup and that the Monitoring Council has yet to address (e.g., grant monitoring). She wanted to make the group aware of this, so that it is adequately addressed in the Triennial Audit report.
Decisions:	Due to the workgroup Triennial Audit presentations going over the 4pm meeting end time, the Monitoring Council members agreed to postpone the presentations from the Water Quality Monitoring Collaboration Network and the Data Management Workgroup until the next Monitoring Council meeting (February 19, 2014).
Action Items:	The Monitoring Council Coordinators (Kris Jones and Jon Marshack) will prepare draft Triennial Audit summary language for Monitoring Council review at the next meeting on February 19, 2014.

ITEM:	7
Title of Topic:	MEETING WRAP-UP
Purpose:	<p>Plan agenda for February 19, 2014 Monitoring Council meeting in Sacramento. Potential items include:</p> <ol style="list-style-type: none"> 1) Triennial audit of the Monitoring Council’s strategy implementation (Jon Marshack and Kris Jones) 2) Update on the USEPA Healthy Watersheds Initiative, California Project to assess watersheds throughout the state and identify healthy watersheds (Lori Webber) 3) Development of Monitoring Council recommendations to improve grant project monitoring, data management, assessment, and reporting 4) Ocean Ecosystem Health (Liz Whiteman) <ol style="list-style-type: none"> a) Plans for Ocean Ecosystem Workgroup and new Ocean Health Portal b) Marine Protected Area (MPA) Monitoring Enterprise and coordination with ASBS monitoring 5) Further information regarding the California Water Plan, Sustainability Indicators Framework (Fraser Shilling) <ol style="list-style-type: none"> a) How the Monitoring Council can feed into it b) Is there a true nexus with the Healthy Watersheds Initiative project? 6) Department of Fish & Wildlife monitoring (Glenda Marsh, Adam Ballard, Robert Holmes, Josh Grover, Chad Dibble, Pete Ode, Tom Lupo) <ol style="list-style-type: none"> a) Coordination b) Financial support c) Flow d) Data Management – CEDEN for water quality data? e) Monitoring Council endorsement of collaboration? 7) Possibility of holding an annual conference. A representative from the Maryland Monitoring Council should be invited to participate by phone (see May 2012 notes, Item #2d)

Desired Outcome:	Develop agenda for the February 19, 2014 meeting	
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Decisions:	<ul style="list-style-type: none"> • The Monitoring Council expressed interest in hearing items (1), (2), (5), and (6), above in February. Item (3) was also of interest, and will be discussed pending the findings of Karen Larsen and Jon Marshack (see Action Item below). • The Monitoring Council felt that discussion of item (2) should include how the results of this study will be incorporated into the Healthy Streams portal and future workgroup efforts. • Item (4) should wait until the current scoping study is ready. • Item (7) was also of interest; however, due to the already full schedule for the February meeting, the Monitoring Council felt that discussion of this item should be postponed to the meeting scheduled for May 28th. 	
Action Items:	<ul style="list-style-type: none"> • Karen Larsen and Jon Marshack will review Item (3) above and previous discussions by the Monitoring Council relating to grant project monitoring, data management, assessment, and reporting to determine whether the topic should be discussed at February's meeting. • Karen Larsen will ask Josh Grover or Scott Cantrell (CDFW) whether they would be willing to present Item (6) above. 	

January 15, 2014
Amended January 30, 2014
Approved February 19, 2014