

CALIFORNIA WATER QUALITY MONITORING COUNCIL

Monitoring Council Meeting Notes

Monday, February 23, 2015 – 10:00 AM to 4:30 PM

Second Floor, Sierra Hearing Room
Joe Serna Jr. Cal/EPA Headquarters Building
1001 I Street, Sacramento



Monitoring Council Members and (Alternates) in attendance:

Sarah Aminzadeh	Sarge Green	Armand Ruby
Beth Christman	(Bruce Houdesheldt)	(Stephani Spaar)
(Greg Gearheart)	Karen Larsen	Steve Weisberg

Others in attendance or (on the phone):

(Diane Beaulaurier, State Water Resources Control Board)
(Avery Blackwell, Geosyntec)
Megan Brooks, Delta Stewardship Council
Maggie Christman, Delta Science Program
(Jay Davis, San Francisco Estuary Institute)
Kristal Davis-Fadtke, Delta Conservancy
(Rebecca Fitzgerald, North Coast Regional Water Quality Control Board)
Terry Fleming, US Environmental Protection Agency, Pacific Southwest Region
(Cecelia Griego, City of Bakersfield)
Cristina Grosso, San Francisco Estuary Institute
(Kelly Hahs, Ventura County Watershed Protection District)
Tony Hale, San Francisco Estuary Institute
(April Hennessy, Department of Fish and Wildlife)
Bud Hoekstra, Berry Blest Farm
(John Hunt, UC Davis)
(Katja Irvin, Sierra Club)
George Isaac, Delta Science Program
Kris Jones, California Water Quality Monitoring Council / Department of Water Resources
(Rachel Kubiak, Western Plant Health Association)
(Nicholas Kunz, State Water Resources Control Board)
Jon Marshack, California Water Quality Monitoring Council / State Water Board
(Laura McCalla, UC Davis)
(Stephen McCord, McCord Environmental, Inc.)
Bill Orme, State Water Resources Control Board
Bryn Phillips, UC Davis
Samsor Safi, Sacramento Regional County Sanitation District
Hildie Spautz, Department of Fish and Wildlife
Eric Stein, Southern California Coastal Water Research Project
(Michelle Tang, State Water Resources Control Board)
Todd Thompson, Department of Water Resources
(Randy Turner, San Francisco Estuary Institute)
Lori Webber, State Water Resources Control Board
Felisha Walls

ITEM:	1
Title of Topic:	INTRODUCTIONS AND HOUSEKEEPING

Purpose:	<ol style="list-style-type: none"> 1) Introductions (in the room and on the phone) 2) Review draft notes from December 10, 2014 Monitoring Council meeting 3) Review agenda for today's meeting 	
Desired Outcome:	<ol style="list-style-type: none"> a) Approve December 10, 2014 Monitoring Council meeting notes b) Preview what will be covered today and overall meeting expectations c) Adjust today's agenda, as needed 	
Attachment Link:	Draft notes from December 10, 2014 Council meeting	
Contact Persons:	Kris Jones Jon Marshack	kristopher.jones@water.ca.gov , (916) 376-9756 jon.marshack@waterboards.ca.gov , (916) 341-5514
Notes:	<p>Member of the public, Bud Hoekstra of Berry Blest Farm, requested to address the Monitoring Council regarding his concerns about the Triennial Audit report. Jon indicated that Bud could address the Monitoring Council following lunch (before Item 5).</p> <p>Mr. Hoekstra discussed the broader issue of monitoring for individual contaminants versus monitoring for contaminant mixtures or indicators of contaminant classes. He raised issues regarding methods for monitoring for contaminants, expressing concerns that rather than monitoring for a few individual chemicals, agencies should be monitoring for classes of chemicals and breakdown products or for indicators of broad classes of contaminants, such as potentially estrogenic compounds.</p> <p>Steve Weisberg mentioned that the State Water Resources Control Board (SWRCB) recently held an expert panel regarding how to monitor for Contaminants of Emerging Concern (CECs) and contaminant mixtures. He added that they found that it is extremely difficult to keep up with new types of herbicides and pesticides. As a result, they recommended developing biological effect measures. Steve mentioned that these methods are being implemented within the next few months, and that the SWRCB are essentially starting to approach this issue in the same way that Bud suggested.</p> <p>Armand Ruby agreed generally with this point, however, he wanted to emphasize that there are benefits of monitoring for individual contaminant effects, as there is sometimes a need to link certain health effects to contaminant exposure.</p> <p>Jon Marshack pointed out that the focus of the Triennial Audit did not go into the issues that Bud described, as the report mainly focused on how successful the Monitoring Council and its workgroups had been at implementing the Monitoring Council's Strategy.</p>	
Decisions:	<ul style="list-style-type: none"> • Meeting notes for December 10 were approved without amendment • A new standing item – Comments on Topics Not on the Agenda – will be included at the beginning of future Monitoring Council meetings • Jon will send CEC program information to Bud Hoekstra 	

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) Triennial Audit – Briefing with Secretary Rodriquez (Kris Jones) b) Environmental Data Summit White Paper (Jon Marshack) c) California CyanoHAB Workgroup – Monitoring Council connection (Jon Marshack) d) National Water Quality Monitoring Council meeting in Boise (February 9-12, 2015) (Jon Marshack)
Desired Outcome:	Information and comment
Background:	<ul style="list-style-type: none"> a) <i>Triennial Audit</i> – The Monitoring Council’s enabling legislation, SB 1070 (Statutes of 2006), requires that the Secretary of the California Environmental Protection Agency conduct a triennial audit of the effectiveness of the Comprehensive Monitoring Program Strategy, adopted by the Council in December 2010. Cal/EPA Secretary Matthew Rodriquez requested that the Monitoring Council conduct a self-evaluation. The resulting audit report was approved by the Council at the December 2014 meeting. A briefing on the audit for Secretary Rodriquez has been scheduled for February 19. b) <i>Environmental Data Summit White Paper</i> – The Delta Science Program of the Delta Stewardship Council held the Environmental Data Summit in June 2014. The Delta Science Program is developing a “vision document” or “white paper” outlining findings and recommendations that arose from that two-day meeting. Monitoring Council Members commented on a preliminary draft of the white paper at the December 2014 meeting and voted to formally endorse the document as a restatement and refinement of data management and data access recommendations found in the Monitoring Council’s earlier recommendations. A public review draft of the white paper is scheduled to be released in February. c) <i>California CyanoHAB Network</i> – In the December 2014 meeting, the Monitoring Council approved Jon Marshack to approach the California CyanoHAB Network and asking whether they would become a workgroup of the Monitoring Council to address their theme of harmful algal blooms and cyanotoxins within in the area of stressors and processes that affect water quality. Jon addressed CCHAB at their December meeting and the CCHAB Steering Committee discussed the concept at their January meeting. Follow-up conversations will be occurring with Water Board middle managers and at future CCHAB meetings. d) <i>National Water Quality Monitoring Council meeting</i> – As its state representative for the Pacific Southwest Region (Arizona, California, Hawaii, and Nevada), Jon Marshack will be attending the next face-to-face meeting of the national Water Quality Monitoring Council in Boise, Idaho during the second week of February.

Attachment Links:	<ul style="list-style-type: none"> • Increasing Efficiency and Effectiveness Through Collaboration: First Triennial Audit Report <ul style="list-style-type: none"> ○ Audit Report Cover Letter to Cal/EPA Secretary Rodriguez • 2014 Environmental Data Summit website • Environmental Data Summit White Paper, public review draft • Draft notes from December 10, 2014 Council meeting 	
Contact Persons:	Jon Marshack Kris Jones	jon.marshack@waterboards.ca.gov ; (916) 341-5514 kristopher.jones@water.ca.gov ; (916) 376-9756
Notes:	<p>a) Triennial Audit – Kris Jones informed the Monitoring Council members that the briefing on the audit for Secretary Rodriguez (originally scheduled for February 19) had been rescheduled to take place February 24. Kris indicated that he would provide an update on this briefing during the May 2015 Monitoring Council meeting.</p> <p>b) Environmental Data Summit White Paper – Jon Marshack mentioned that the Monitoring Council members had commented on a preliminary draft of the white paper at the December 2014 meeting and voted to formally endorse the document as a restatement and refinement of data management and data access recommendations found in the Monitoring Council’s earlier recommendations. Jon added that on February 18 the Delta Stewardship Council posted a draft of the latest version of the white paper for public comment and review, with comments due March 18 (later extended to March 27). George Isaac of the Delta Science Program indicated that following the public review period Delta Science Program staff would incorporate these comments into a final version for publication.</p> <p>c) California CyanoHAB Network – Jon Marshack provided a brief update regarding his presentation to the California CyanoHAB Network (CCHAB) in December 2014, where he asked the group whether they would consider becoming a workgroup of the Monitoring Council. Jon indicated that the CCHAB executive committee voted to support this motion. Jon added that he plans to discuss next steps with the CCHAB during the workgroups next meeting. Following his discussion, Steve Weisberg asked whether adding this workgroup would spread the Monitoring Council staff too thin. In addition, Steve asked whether Jon and Kris Jones had explored Proposition 1 (Prop 1) funding as a potential source of support. Jon indicated that they had not. Steve mentioned that the Harmful Algal Bloom (HAB) topic is front and center in the water bond. Steve suggested that there be an action item, where representatives from both the Department of Water Resources (DWR) and the State Water Resources Control Board (SWRCB) could provide details regarding the direction their respective agencies are taking relating to Prop 1, and how the Monitoring Council could tie into those efforts. Sarge Green suggested that the Monitoring Council should ask the SWRCB board members for feedback regarding this topic. Jon suggested that Fran Spivy-Weber might be the best person to approach for this type of information.</p> <p>d) National Water Quality Monitoring Council meeting – The meeting included reports from various workgroups and initiatives of the National</p>	

	<p>Council</p> <ul style="list-style-type: none"> • Through the Sensors Workgroup, USEPA, USGS, and NOAA plan to publish a joint federal sensor strategy in spring 2015. The main focus will be on nutrients. Highlighted will be the USGS field development guide, data management and QA for continuous data, state of the technology for sensor deployment, and the use of surrogates and water quality models (e.g., turbidity for bacteria or sediment). • The 2016 National Monitoring Conference – will be held May 2-6 in Tampa Florida. Abstracts will be due in September 2015. • The National Network of Reference Watersheds is a web-based search tool for minimally-disturbed watersheds. Included is a land use-based disturbance metric and links to national Water Quality Portal data. USGS and USEPA data have been loaded. California data have been submitted from the Reference Condition Monitoring Program of SWAMP. • The Water Information Strategies Workgroup, of which Jon is a member, is developing a series of fact sheets to promote and justify various types of ambient monitoring, such as probabilistic and targeted designs. An uncertainty analysis “confidence illustrator” tool is also being developed to better inform decision making regarding the development of a sampling program. • The National Water Quality Portal (http://www.waterqualitydata.us/) provides access to water quality data from USEPA (STORET), USGS (NWIS), USDA (STEWARDS), and state and tribes who submit data to any of these datasets. Map and query-based searches and web services are included. Plans are in the works to add statistical data analysis tools and flow-related information. Jim Kreft of USGS has offered to provide presentations to state and regional monitoring councils. • Jon made a presentation about the California Water Quality Monitoring Council, including legislative mandate, strategy, workgroups and portals. A number of meeting participants replied “I want that for my state.” • The National Monitoring Network includes USEPA’s National Coastal Condition Assessment, USGS’s National Water Quality Network of fixed sites (only 2 in California), and NOAA’s National Centers for Coastal Ocean Science which encompass the Integrated Ocean Observing System, National Marine Sanctuaries, and National Estuarine Research Reserve System (SF Bay, Elkhorn Slough, and Tijuana River in California). Efforts are underway to begin to integrate efforts regarding nutrient impacts on coastal and marine waters from inland sources.
<p>Action Items:</p>	<ul style="list-style-type: none"> • Jon Marshack and Kris Jones will identify representatives from both the Department of Water Resources and the State Water Resources Control Board, who could provide details regarding the direction their respective agencies are taking with regards to Prop 1, and how the Monitoring Council could tie into those efforts. • Jon will ask Jim Kreft to make a presentation on the national Water Quality Portal at an upcoming Monitoring Council meeting.
<p>ITEM:</p>	<p>3</p>
<p>Title of Topic:</p>	<p>USING ECOATLAS TO TRACK HABITAT RESTORATION PROJECTS IN THE DELTA</p>

<p>Purpose:</p>	<p>Cristina Grosso of the San Francisco Estuary Institute-Aquatic Science Center and Kristal Davis-Fadtke of the Delta Conservancy presented a project update on using EcoAtlas to track habitat restoration projects in the Delta. There is an opportunity to allow users to better visualize the environmental context for these projects by including an additional data layer of habitat types for the Delta translated from the Vegetation Classification and Mapping Program (VegCAMP) data produced by the Department of Fish and Wildlife.</p>	
<p>Desired Outcome:</p>	<p>Monitoring Council guidance on including an additional habitat data layer in EcoAtlas</p>	
<p>Background:</p>	<p>The California Aquatic Resource Inventory (CARI) is the statewide common base map of surface waters, including wetlands and streams, used in EcoAtlas. At the release of EcoAtlas in June 2013, the Monitoring Council decided to not include CARI data for the Sacramento-San Joaquin Delta because it was unable to differentiate existing wetlands from currently farmed areas. The existing EcoAtlas base map for the Delta shows minimum information for tidal channels and tidal marsh, and almost no data for non-tidal habitats.</p>	
<p>Attachment Link:</p>	<ul style="list-style-type: none"> • Habitat Restoration Project Tracking Update – presentation by Cristina Grosso and Kristal Davis-Fadtke • EcoAtlas online 	
<p>Contact Person:</p>	<p>Cristina Grosso Kristal Davis-Fadtke</p>	<p>cristina@sfei.org; (510) 746-7371 kristal.davis-fadtke@deltaconservancy.ca.gov; (916) 375-4994</p>
<p>Notes:</p>	<p>Cristina Grosso and Kristal Davis-Fadtke made a presentation on using EcoAtlas to track habitat restoration projects in the Delta. The goal of the project is to enhance regional capacity for habitat restoration project tracking, assessment and reporting by merging project data into EcoAtlas and expanding the tool's current functionality. She indicated that the project is scheduled for completion in June 2015.</p> <p>Kristal described how the EcoAtlas base map, the California Aquatic Resources Inventory (CARI), initially over represented marshes in the Delta, based on the National Wetland Inventory data. She added that CARI had previously been unable to differentiate existing wetlands from currently farmed areas in the Delta. While there is currently no funding to develop a Delta Aquatic Resources Inventory (DARI) layer, they asked for the Monitoring Council's permission to add a layer of habitat types translated from the Vegetation Classification and Mapping Program (VegCAMP) and presented in the recent SFEI report, A Delta Transformed. They mentioned that adding these data would provide habitat types for ecological planning and allow users to view projects at the landscape scale; however, they added that it would not be summarized in landscape profiles.</p> <p>Following the presentation, Bruce Houdesheldt asked about the original source of these data—has there been QA/QC of these data? Cristina mentioned that CARI v0 was developed using the best available data, and there is a stringent QA/QC process to ensure that the data is good quality. Jon mentioned that the National Hydrography Dataset of the US Geological Survey and the National</p>	

	<p>Wetland Inventory of the US Fish and Wildlife Service were used to develop CARI v0, as well as more intensive mapping efforts from various sources (SFEI, SCCWRP, Army Corps of Engineers, etc.). He added that there are mapping protocols for how those layers are assembled and combined. Cristina clarified that they are asking for feedback and approval from the Monitoring Council regarding whether they should include the vegetation information from <i>A Delta Transformed</i> in EcoAtlas. Jon added that VegCAMP is a tool that the California Department of Fish and Wildlife uses to map vegetation data—it is a map of vegetation and not of waters. Jon asked whether there would still be cautionary language in CARI? Cristina said that there would. Sarge Green asked what other organizations will be approached regarding the addition of these layers? Jon indicated that he did not think that they were ready to add new Delta habitat layers yet. He added that this is a preliminary tool to help people conducting habitat restoration projects in the Delta. It is not detailed enough to distinguish at different scales, for example. Terry Fleming asked whether our purpose is to get information and data together to identify where we have data and where there are gaps? Jon said that what Cristina and SFEI are doing is the first part—getting the preliminary data displayed. This will help to identify the data gaps.</p> <p>Stephani Spaar asked whether they had involved the Delta Stewardship Council (DSC) in this process. Kristal mentioned that they had. The Independent Science Board has expressed the need for this kind of information being available on a centralized map. Greg Gearheart suggested that they should err on the side of acknowledging the issues, but put these data onto EcoAtlas. Other Monitoring Council members seemed to agree. However, he raised concerns of approving something that has an unsustainable source of funding. Cristina mentioned that there is a USEPA funded grant to develop a business plan for EcoAtlas that would address the longer-term support issue. . Greg asked Kristal whether the Delta Conservancy knows of any agency that could be the agency steward or home to help with sustainability. Kristal indicated that none had been identified, and added that this was an ongoing issue for EcoAtlas. The Conservancy is developing Proposition 1 grant guidelines that would support entering project information into EcoAtlas. Tony Hale clarified that the VegCAMP layer is maintained by the California Department of Fish and Wildlife. He indicated that it does not require more funding to update the layer. Tony added that making the layer visible does not require much extra work or funding.</p> <p>A future need is to more accurately map wetland classes within the Delta and complete the Delta Aquatic Resources Inventory (DARI) layer</p>
Decisions:	The concept of adding a vegetation data layer for the Delta was approved, but that a link to the SFEI report, <i>A Delta Transformed</i> should be included.

ITEM:	4
Title of Topic:	STATE OF THE ESTUARY REPORT 2015
Purpose:	<p>Hildie Spautz of the California Department of Fish and Wildlife and a member of the California Estuary Monitoring Workgroup (CEMW) provided an update on:</p> <ol style="list-style-type: none"> 1) Proposed ecosystem indicators for the State of the Estuary Report 2015 covering the San Francisco Bay and Sacramento-San Joaquin Delta, and;

	2) Potential opportunities for linkages between the report and the Estuaries Portal.	
Desired Outcome:	Information and discussion	
Background:	At the September 2014 Monitoring Council meeting, Stephanie Fong of the State and Federal Contractors Water Agency and Judy Kelly of the San Francisco Estuary Partnership presented the concept integrating the State of the Estuary Report (SOTER 2015) with the work of Estuary Workgroup. The Estuary Workgroup has been working with the Partnership and others to develop Delta indicators for the SOTER. While previous reports have mainly focused on the San Francisco Bay, several new Delta indicators are being developed by CEMW members. The content being developed for the SOTER also presents an opportunity for linkages between the SOTER (for the status of ecosystem health summary) and the Estuary Portal (for technical background information and data).	
Attachment Links:	<ul style="list-style-type: none"> • CA Estuaries Portal & State of the Estuary Report 2015 – presentation by Hildie Spautz • Notes from the September 2014 Monitoring Council meeting (see Item 7) • State of the San Francisco Bay 2011 Report 	
Contact Person:	Hildie Spautz	Hildegarde.Spautz@wildlife.ca.gov ; (916) 445-0076
Notes:	<p>Hildie Spautz made a presentation updating the Monitoring Council on the collaboration between the CEMW and the San Francisco Estuary Partnership (SFEP) to develop Delta indicators for the State of the Estuary Report 2015 (SOTE). During her presentation, Hildie provided background regarding the State of the Estuary effort. Hildie briefly discussed the methods and data used to evaluate the status and trends for Delta indicators relating to fish, zooplankton, and benthic invertebrates. She then provided some initial findings for these indicators, as well as plans for related content that will be added to the Estuaries Portal.</p> <p>Following Hildie's presentation, Sam Safi asked about how the report will be presented on the portal. Hildie mentioned that this was still being worked out with SFEP. Sam asked whether there were plans to have public comments on the report. Hildie indicated that she did not think that there would be, but that public input on the 2015 report would be used to inform the next iteration. Kris Jones added that the CEMW has urged SFEP to allow for peer review which is in progress now, in coordination with the Delta Science Program. However, he mentioned that as the SOTE report is a product of SFEP, that the CEMW has been restricted to SFEP procedures.</p> <p>Steve Weisberg applauded the workgroup's efforts to daylight data and develop indicators. But not much work has been done to standardize assessment approaches and to combine datasets from multiple sources. He asked that the workgroup address these needs in the future. He also mentioned that the Santa Monica Bay restoration program is currently developing similar indicators, and he suggested that we have a representative from that group present at the May meeting in Costa Mesa.</p>	

Action Items:	Kris Jones and Jon Marshack will arrange for a representative from the Santa Monica Bay who can present their indicators of bay health at the May 2015 meeting of the Monitoring Council.
ITEM:	5
Title of Topic:	BUSINESS PLANS FROM WORKGROUPS – CONTENT AND FORMAT – WETLAND MONITORING WORKGROUP EXAMPLE
Purpose:	Tony Hale of the San Francisco Estuary Institute-Aquatic Science Center presented the strategic planning efforts of the Wetland Monitoring Workgroup that will lead to the development of a business plan outlining specific needs to maintain and grow the workgroup’s collaborative monitoring, assessment, and reporting efforts. Lead persons of all of the Monitoring Council workgroups have been encouraged to attend.
Desired Outcome:	Monitoring Council input on the nature and scope of the Wetland Monitoring Workgroup’s business plan development effort and whether it could serve as a model for the other workgroups.
Background:	<p>The Monitoring Council’s Triennial Audit Report calls on California government agencies and the legislature to provide dedicated funding and staff to sustain and grow the Monitoring Council’s workgroup efforts in order to fully implement A Comprehensive Monitoring Program Strategy for California. The audit report commits the Monitoring Council and its workgroups to provide the legislature and agency Secretaries with the details of what is needed, in the form of workgroup business plans, within one year. According to the audit report, these business plans will outline specific needs (staff positions, budgets, etc.) and will highlight existing departmental mandates that can be addressed more effectively through the Monitoring Council’s collaborative workgroup processes, tools, and the My Water Quality web portals. The goal of these business plans it to get a precise handle on resource needs to meet current goals and to ensure sustainability into the future.</p> <p>Examples of existing mandates that are being or are proposed to be addressed by Monitoring Council workgroups, tools, and portals:</p> <ul style="list-style-type: none"> • In 1993, the Governor announced the California Wetlands Conservation Policy, establishing a framework and strategy to “ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California...” But in 2010 when the Natural Resources Agency attempted to determine whether there was any net loss of wetlands, differences in wetland definition, mapping protocols, and assessment methods between agencies made it impossible to deliver an answer. The Wetland Monitoring Workgroup has developed standardized definitions, mapping methods, and assessment protocols (and a concerted outreach effort to gain broad use of these tools) and is launching a status and trends monitoring program that together will allow California government to answer this question. • State Water Board Water Rights Decision 1641 requires the Department of Water Resources to periodically report on the quality of water resources within the Sacramento-San Joaquin River Delta and Suisun and San Pablo

	<p>Bays as a condition of diverting water. These reports have been static documents to date. As part of its California Estuaries Portal, the Estuary Monitoring Workgroup is developing an on-line Interactive Water Quality Conditions Report for the Delta that will allow agency staff to gain access to the same data in a much more useful interactive manner.</p> <ul style="list-style-type: none"> As part of its responsibility to manage the State Water Project, that provides drinking water to approximately two-thirds of California’s population, the Department of Water Resources and State Water Project Contractors Authority are required to periodically report to the state’s drinking water program (now the Division of Drinking Water within the State Water Board). These Watershed Sanitary Survey reports contain information on contaminant sources and water quality issues. Members of the Safe Drinking Water Workgroup have suggested that an interactive report through the soon-to-be-built Safe-to-Drink Portal would provide the same information in a much more usable format.
<p>Attachment Links:</p>	<ul style="list-style-type: none"> Developing a Business Plan for the California Wetland Monitoring Workgroup – presentation by Tony Hale Increasing Efficiency and Effectiveness Through Collaboration: First Triennial Audit Report <ul style="list-style-type: none"> Audit Report Cover Letter to Cal/EPA Secretary Rodriguez
<p>Contact Person:</p>	<p>Tony Hale tonyh@sfei.org; (510) 746-7381</p>
<p>Notes:</p>	<p>Tony Hale presented the California Wetland Monitoring Workgroup’s (CWMW) strategic planning efforts, which will help in the development of the workgroup’s business plan. Tony provided a brief background on the CWMW, and mentioned that the workgroup was formed to develop and implement a standardized method to assess and monitor wetlands and riparian zones throughout California.</p> <p>Tony indicated that the goal of the business plan is to support the ongoing work and advancement of the tools and method developed by the workgroup. He laid out the objectives for the development of the business plan, which included sustainable funding to support Wetland and Riparian Area Assessment Plan (WRAMP) tools; Tony indicated that the focus will primarily be on supporting the WRAMP tools rather than the general activities or science support of the CWMW. A wetland development grant from EPA is funding this effort. Included will be the development of a Feasibility Study Report (FSR) to justify the use of EcoAtlas for state agency data management and visualization purposes. He added that the workgroup’s collective activities will likely continue to proceed on a voluntary basis, with limited dedicated funding. During his discussion, Tony also laid out key questions the group will try and address in the business plan. For example, how does the CWMW accommodate and fund ongoing IT maintenance? How does the CWMW ensure that their data is of a known and documented quality? He indicated that this information will be evaluated and help feed into the business model. Tony also mentioned that the workgroup plans to connect with other efforts, such as those currently underway relating to the Delta Stewardship Council’s 2014 Environmental Data Summit and the resulting white paper. This effort could also help to inform the development of a business plan for the Monitoring Council’s Data Management Workgroup.</p>

	<p>Following Tony’s presentation, Sarge Green suggested that when the CWMW consults with various groups regarding their methods and tools, that they should connect with university researchers. Greg Gearheart asked for clarification regarding the goals of the business plan as well as the intended ‘customer.’ Tony indicated that the business is the continued assessment, reporting, and monitoring of wetlands and riparian areas in California. Jon Marshack suggested that it should also include the development and refinement of the California Rapid Assessment Method (CRAM) modules, as well as continued training. Terry Fleming suggested that it is also important to identify specific management actions where these data display efforts could provide support.</p> <p>Jon asked whether the CWMW plans to address aspects other than the data-related tools (e.g., eCRAM, EcoAtlas) in their business plan. Tony mentioned that this was the main focus, and that they had intended to focus less on the staff required for these activities. Karen Larsen indicated that she felt that what Tony described seemed a bit backwards; rather than creating the tools and seeing whether they address a particularly management question, she indicated that they should be doing the reverse, with business needs driving the business analysis. Coordinating monitoring activities should be the #1 focus including the cost of participation in the CWMW by agencies not currently represented but needed pursuant to the workgroup’s mission. Bill Orme indicated that the CWMW has worked with agencies to see whether the tools would help address their needs; he mentioned that their outreach has demonstrated a nexus between the tools and the agency needs. He added that they are now seeking funding to carry out the work. Greg Gearheart pointed out that getting funding for a website is different than getting funding for CRAM methods, for example. He indicated that they should be mindful of this as they move forward with their business plan. Greg also suggested that the CWMW should clearly address why the collaboration process is necessary for their business model.</p>
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ITEM:	6
Title of Topic:	ARE WE ACHIEVING NO NET LOSS? TRACKING WETLAND STATUS AND TRENDS IN CALIFORNIA
Purpose:	Eric Stein of the Southern California Coastal Water Research Project (SCCWRP) presented an overview of the newly developed wetland status and trends program and discussed initial implementation to evaluate progress toward achieving California’s no net loss goals.
Desired Outcome:	Monitoring Council support for pending implementation of the wetland status and trends program and potential applicability of the methodology to other water resource types
Background:	California currently lacks the ability and data standards to track changes in wetland extent. Because of this, it cannot report on the status and trends of its wetland and riparian areas or account for the effects of the millions of dollars it invests annually to protect these resources through its longstanding public policies and programs. The State also lacks data standards and a standardized assessment approach that would allow for the compilation and sharing of data across all wetland programs. Addressing these deficiencies is critical to the ability to undertake a comprehensive net change analysis. The need for

	<p>Natural Resources Agency mentioned that they initially were looking for three agencies to help support these efforts (California Environmental Protection Agency, Department of Fish and Wildlife, and the Natural Resources Agency); however, the Department of Fish and Wildlife indicated that they did not have sufficient funds to help with these efforts.</p> <p>Following the presentation, Sara Aminzadeh asked to what extent the CWMW has tried to leverage state funding relating to climate change. Chris mentioned that he had spoken with the Strategic Growth Council, for example. However, he added that ongoing funding is difficult to secure. Steve Weisberg suggested that the group try and identify potential links between Proposition 1 (Prop 1) funding and the Status and Trends efforts. He also mentioned that the group had developed a cost effective way to approach a state wide policy. He recommended that the Monitoring Council should support the CWMW Status and Trends effort.</p> <p>Greg Gearheart asked whether these methods could be used to explore regional questions. Eric said they could, adding that they looked into different types of intensification options (such as those for vernal pools). However, these intensification efforts would have to be separate from the state wide random sampling. Steve Weisberg raised the motion to provide a letter of support to CWMW Status and Trends efforts. He also suggested having Jon Marshack and Kris Jones identify potential links between Prop 1 funding and the CWMW Status and Trends efforts, for a potential agenda item at the May 2015 meeting of the Monitoring Council. The motion was seconded by Sarge Green and was approved with none opposed.</p>
<p>Action Items:</p>	<ul style="list-style-type: none"> • Jon Marshack and Kris Jones will attempt to identify potential links between Prop 1 funding and Monitoring Council and workgroup efforts, using the CWMW Status and Trends program as one example. • Jon Marshack and Kris Jones will work with Eric Stein and Chris Potter to draft a letter of support from the Monitoring Council Co-Chairs for the CWMW Status and Trends program.

<p>ITEM:</p>	<p>7</p>
<p>Title of Topic:</p>	<p>STREAM POLLUTION TRENDS PROGRAM (SPoT): RESULTS OF THE FIRST FIVE YEARS OF MONITORING (2008-2012)</p>
<p>Purpose:</p>	<p>Bryn Phillips of the UC Davis Department of Environmental Toxicology presented a summary of the third project report from the Stream Pollution Trends Program: Trends in Chemical Contamination, Toxicity and Land Use in California Watersheds: Five-Year Trends 2008-2012.</p>
<p>Desired Outcome:</p>	<p>Information and discussion</p>
<p>Background:</p>	<p>The State Water Resources Control Board’s Surface Water Ambient Monitoring Program (SWAMP) has released the third report on results from a continuing statewide program that measures trends in pollution levels and toxicity in major California watersheds. The program is the Stream Pollution Trends monitoring program (SPoT), and is one of four statewide projects funded by SWAMP. The report, Trends in Chemical Contamination, Toxicity and Land Use in California</p>

	<p>Watersheds, summarizes results from the first five years of annual SPoT surveys which assess large watersheds across California to determine how stream pollutant concentrations are affected by land use, with an emphasis on urban and agricultural development. SPoT is improving our understanding of the long term trends of watershed contamination and associated toxicity. This program investigates the impacts of land development on water quality, helps prioritize water bodies in need of water quality management, and evaluates the effectiveness of management programs designed to improve stream health. SPoT data provide a statewide perspective on the impact of pollution on stream health and allows local and regional water quality managers to evaluate how conditions in their streams compare to those in other California watersheds.</p> <p>The SPoT Program satisfies all three of the goals of the Monitoring Council. SPoT collaborates with other agencies and research groups to leverage monitoring efforts. SPoT data are submitted to CEDEN through the SWAMP database, and appear on the Ecosystem Health portal of the My Water Quality web site. Lastly, because SPoT is a trends program, it is positioned to monitor project effectiveness. For example, the California Department of Pesticide Regulation (DPR) has implemented use restrictions to limit urban use of pyrethroid pesticides. SPoT is collaborating with DPR to evaluate the effectiveness of these regulations to reduce pyrethroids in selected watersheds.</p>	
<p>Attachment Link:</p>	<ul style="list-style-type: none"> • Stream Pollution Trends (SPoT) Program Review – presentation by Bryn Phillips • SPoT reports, fact sheets, and informational maps and tables 	
<p>Contact Person:</p>	<p>Bryn Phillips</p>	<p>bmphillips@ucdavis.edu; (831) 624-0947</p>
<p>Notes:</p>	<p>Bryn Phillips made a presentation summarizing the third project report from the Stream Pollution Trends Program. He mentioned that surface water toxicity is pervasive in California, indicating that between 2001 and 2010, 50% of water and sediment samples collected in California were considered toxic. Bryn laid out the goals of the SPoT program: 1) determine long-term trends in stream contaminant concentrations at the base of large watersheds statewide; 2) relate water quality indicators to land use characteristics; and 3) use the network of sites established throughout the state to serve as a backbone for collaboration with local, regional, state and federal monitoring programs. The report, Trends in Chemical Contamination, Toxicity and Land Use in California Watersheds, summarizes results from the first five years of annual SPoT surveys which assess large watersheds across California to determine how stream pollutant concentrations are affected by land use, with an emphasis on urban and agricultural development.</p> <p>Their study demonstrated a signature relationship between toxicity test water temperatures and pyrethroid pesticide toxicity, with tests conducted at lower temperatures showing higher toxicity. They also showed that the most toxic sites were near urban areas. They observed an overall increase in pyrethroids statewide, which was likely due to an increased use in urban areas. Terry Fleming asked whether the report attempts to link pesticide use to these patterns. John Hunt responded (by phone) that most of the sampling had occurred in dry years, and that ongoing monitoring might allow the group to look at such patterns. Pesticide use data gathered by the Department of Pesticide Regulation identifies agricultural use at a finer geographic detail than urban use,</p>	

	<p>which is recorded based on county-wide sales.</p> <p>Bryn also discussed their work relating to pesticide contaminants of emerging concern. They started measuring for fipronil (parent compound and degradates) in SPoT sediments because it is highly soluble. He added that they are beginning collaborations between regional SWAMP programs and DPR to assess potential toxicity.</p> <p>A key aspect of the study highlighted the need to use different test organisms to accurately identify toxicity caused by different pesticides. Each pesticide class appears to cause higher toxicity to differing test organism species. So, the standard EPA three-species toxicity test protocol commonly used to measure toxicity from agricultural drainages is likely not to identify toxicity to many chemicals (e.g., pyrethroids and neonicotinoids) at environmentally relevant concentrations.</p> <p>Bryn also discussed their collaboration with the Department of Pesticide Regulation, in which they are conducting an intensive study to determine the effectiveness of new pyrethroid pesticide labeling regulations for professional applicators. He also mentioned their ongoing collaboration with California State University Monterey Bay, studying the cyanotoxin microcystin-LR in sediment as well as interstitial water (at all 100 SPoT stations).</p> <p>Following Bryn’s presentation, Jon Marshack indicated that this work would be a great addition to the Health Streams Portal, especially if it is linked with SWAMP bioassessment information. Both programs have identified strong correlations with upstream land use. Armand Ruby mentioned that he was glad the SPoT program was working with DPR and starting to consider both toxicity in the water column and in sediments. He added that he thought that it would be worth working towards a statewide status and trends assessment of pesticide presence and effects. He asked if the stormwater community could provide support for such efforts. Steve Weisberg voiced the opinion that SWAMP has evolved in a very positive way over the last ten years.</p>
<p>Action Items:</p>	<p>Sarge Green and Armand Ruby asked that Jon Marshack and Kris Jones prepare an agenda item at an upcoming Monitoring Council meeting (e.g., in August 2015), that would discuss the available water quality and pesticide use data that is being generated by DPR and the possible options to get those data available and integrated onto one of the MyWaterQuality portals. The Management Agency Agreement between DPR and the State Water Board will soon be rewritten.</p>

<p>ITEM:</p>	<p>8</p>
<p>Title of Topic:</p>	<p>SURFACE WATER AMBIENT MONITORING PROGRAM REVIEW</p>
<p>Purpose:</p>	<p>Lori Webber presented the results of a recent internal programmatic review of the Surface Water Ambient Monitoring Program (SWAMP).</p>
<p>Desired Outcome:</p>	<p>Information and discussion</p>
<p>Background:</p>	<p>The Water Boards’ Surface Water Ambient Monitoring Program (SWAMP) is a critical player in implementing the Monitoring Council’s <i>Comprehensive</i></p>

	<p><i>Monitoring Program Strategy for California.</i> The Council's enabling legislation, SB 1070 (Statutes of 2006), required that SWAMP update its needs assessment in light of the expanded coordination provided by the Monitoring Council's <i>Strategy</i>. As such, the resulting SWAMP Strategy was appended to the Monitoring Council's <i>Strategy</i>. SWAMP leads two of the Council's theme-specific workgroups – Bioaccumulation Oversight Group and Healthy Streams Partnership – and provides critical tools for others to use in the areas of monitoring, assessment, and reporting standard operating procedures, including quality assurance and data management.</p> <p>In 2014 SWAMP conducted an internal programmatic review to evaluate program functions and effectiveness, and to recommend actions to ensure the program's continued success. A review panel – consisting staff from the State and Regional Water Boards and the USEPA – evaluated current and past SWAMP activities in the context of its overall programmatic mission and goals. The Report lists the major findings of the review and identifies recommended actions to improve effectiveness of program management and to enhance SWAMP's role as a monitoring resource for agencies, stakeholders and the general public. The Report also highlights SWAMP's accomplishments over the past 14 years, including its robust statewide and regional ambient monitoring programs, its quality assurance and data management infrastructure and tools, and the many coordination and collaboration projects that have made effective use of limited resources.</p>		
Attachment Link:	<ul style="list-style-type: none"> • 2014 SWAMP Review – presentation by Lori Webber • Review of the Surface Water Ambient Monitoring Program (SWAMP) 		
Contact Person:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; padding: 2px;">Lori Webber</td> <td style="padding: 2px;">Lori.Webber@waterboards.ca.gov; (916) 341-5556</td> </tr> </table>	Lori Webber	Lori.Webber@waterboards.ca.gov ; (916) 341-5556
Lori Webber	Lori.Webber@waterboards.ca.gov ; (916) 341-5556		
Notes:	<p>Lori Webber made a presentation updating the Monitoring Council on the SWAMP internal programmatic review. During her presentation, Lori laid out how SWAMP efforts are linked with the specific workgroups of the Monitoring Council – the Bioaccumulation Oversight Group and the Healthy Streams Partnership, as well as providing monitoring, assessment, QA, and data management tools for even broader workgroup application. She also provided a bit of background regarding the purpose of the review, indicating that it was requested by State Water Board management. The goal of the review was to evaluate program functions and the effectiveness in implementing the SWAMP Strategy. An additional outcome of the review was to provide recommendations to ensure the continued success of the program.</p> <p>Lori did not go over the specific details of the report. However, she provided details regarding some of the key successes of the program, including the development of the SWAMP toolbox—QA/QC, Standard Operating Procedures (SOPs), and data management. She added that SWAMP has also been successful at working with their partners to leverage existing resources. In the report, they requested feedback from management and other Water Board programs. They also recommended establishing clear roles and responsibilities for the program, and that the group should focus on data synthesis and reporting, and that there should be a feedback loop for users of SWAMP tools.</p> <p>Following Lori's presentation, Greg Gearheart pointed out that Bryn's presentation regarding the SPoT program (Item 7; above) connects well with their recommendations, particularly with regard to data synthesis and reporting.</p>		

	More SWAMP synthesis and interactive reporting would enhance the Monitoring Council's portals. There was also a suggestion to form a SWAMP user group to help support ongoing use of these methods and tools, especially by outside users.
Action Items:	Lori Webber will work with Greg Gearheart to form a SWAMP tools user group.

ITEM:	9	
Title of Topic:	NEXT MEETING AGENDA	
Purpose:	<p>Plan agenda for May 29, 2014 Monitoring Council meeting in Costa Mesa. Potential items include:</p> <ol style="list-style-type: none"> 1) Data visualization – San Diego River report cards (Brock Bernstein) 2) Convening of the Ocean and Coastal Ecosystem Workgroup and development of a My Water Quality portal on the theme of ocean and coastal ecosystem health (Liz Whiteman) 3) Presentations from organizations within the Natural Resources agency (e.g., those identified in SB 1070) and next steps for outreach 4) Possibility of holding an annual conference 	
Desired Outcome:	Develop agenda ideas for the May 29 meeting	
Contact Persons:	<p>Kris Jones</p> <p>Jon Marshack</p>	<p>kristopher.jones@water.ca.gov; (916) 376-9756</p> <p>jon.marshack@waterboards.ca.gov; (916) 341-5514</p>
Notes:	<p>The Monitoring Council expressed an interest in hearing Items (1) and (2), above, in May. The Monitoring Council agreed that they should discuss Items (3) and (4) at a later date. Greg Gearheart opined that a Monitoring Council conference would improve outreach, getting our stories out to a broader audience.</p> <p>Additional Items were suggested, including:</p> <ul style="list-style-type: none"> • The national Water Quality Portal • Indicators developed by the Santa Monica Bay restoration program • Biological data assembled by the Nature Conservancy • Future direction of CEDEN especially as it relates to becoming the data source for 303(d) impaired waters listings • Proposition 1 funding from the State Water Board and Department of Water Resources, and possible links to Monitoring Council efforts • Proposed focus change from Healthy Steams Partnership to Healthy Watersheds Partnership • SWAMP tools user group • The new groundwater law presentation in August 2015. <p>Greg Gearheart suggested that there be a SWAMP connection to each</p>	

	Monitoring Council agenda.
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March 27, 2015
Amended May 6, 2015
Approved May 29, 2015