



UPPER LOS ANGELES RIVER AREA WATERMASTER
Richard C. Slade - Watermaster

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MEMORANDUM

April 16, 2014

To: Mr. Samuel Unger
Executive Officer
Regional Water Quality Control Board --
Los Angeles Region (RWQCB)

Cc: Dr. Ginachi Amah
Regional Water Quality Control Board --
Los Angeles Region (RWQCB)
Via email (gamah@waterboards.ca.gov)

From: Richard C. Slade, Watermaster
Upper Los Angeles River Area (ULARA) 

Re: Request for Due-Date Extension for the
In-Progress Development of a
Salt & Nutrient Management Plan (SNMP)
For the ULARA Groundwater Basins

The purpose of this letter is to formally request a due-date extension for the SNMP for the ULARA groundwater basins. Work on the ULARA SNMP is in progress, but will not be completed in Draft format by the May 2014 deadline. Below is a description of our work completed to date:

- Initially, the City of Los Angeles through the Los Angeles Department of Water and Power began the early work of beginning the development of a Salt and Nutrient Management Plan. A public kick-off meeting was held on September 16, 2010 to introduce members of the public and key stakeholders to the SNMP development process. This meeting was held jointly by LADWP and the RWQCB. This effort was initially led by LADWP because of LADWP's previous preparation of a salt loading analysis for Total Dissolved Solids (TDS) and chloride necessary under the requirements of LARWQCB Order R4-2008-0040, Task 2.
- LADWP also addressed the members of the ULARA Administrative Committee (AC) separately at the January 19, 2011 AC Meeting to discuss data needs and ways in which the parties could work together on the SNMP, because of the groundwater underflows that move between the four ULARA groundwater basins. Following that presentation, and also during its subsequent April 20, 2011 meeting, the ULARA AC discussed a unified approach for the SNMP for all of ULARA, and ultimately decided that a combined effort by all of the parties, and led by the ULARA Watermaster, would be preferable to the AC. Such an arrangement would also help to facilitate cost sharing for the work because agreements regarding cost sharing were already in place for the ongoing

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services of the ULARA Watermaster. Furthermore, it was recognized that the City of Los Angeles overlies only portions of the four groundwater basins in ULARA.

- At the request of the Watermaster, a meeting was held on Aug 22, 2011 at the RWQCB offices to address the issue of separating LADWP's permit-required salt loading analysis and salt management plan for chloride and total dissolved solids (TDS) from the regional SNMP development effort. The results of that meeting included separate requirements for LADWP with respect to the salt loading analysis, and the Watermaster for the SNMP for ULARA. Hence, from this point forward, the ULARA Watermaster became the project manager for the SNMP for all of ULARA, as a single combined report. The sign-in sheet for this meeting is attached for reference.
- A Technical Subcommittee specifically dedicated to working on the SNMP was created by the ULARA AC. Each of the five AC Parties was asked to nominate two members to become part of the ULARA SNMP Technical Subcommittee: one policy representative, and one technical representative. The committee members, as named by the AC, include:
 - Burbank
 - Technical: Bill Mace
 - Policy: Bill Mace
 - CVWD
 - Technical: Dave Gould
 - Policy: Dave Gould
 - Glendale
 - Technical: Raja Takidin
 - Policy: Ramon Abueg
 - Los Angeles
 - Technical: Hadi Jonny
 - Policy: Evelyn Cortez Davis
 - San Fernando
 - Technical: Tony Salazar
 - Policy: Ron Ruiz (has since retired, replaced by Interim Public Works Director Marlene Miyoshi)
- A detailed Draft Outline titled "Draft Outline Salt and Nutrient Management Plan for the Upper Los Angeles Area" was prepared by the Watermaster and reviewed by the ULARA SNMP subcommittee. This document was provided to Dr. Amah on January 31, 2013 for review and comment; this outline was submitted in lieu of a costly Workplan.

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Six comments were received from the RWQCB, which were then responded to and addressed in a revised Draft Outline. (The Draft outline was later reorganized, as discussed below).

- In April 2013, a decision was made by the ULARA Watermaster and the AC Parties to retain the services of technical consultants for the Watermaster for a portion of the SNMP development work. The Watermaster informally approached four firms based on their experience with other SNMP work in Southern California to request scope of work costs for their services, so that a budget for the ongoing SNMP development could be prepared for the ULARA AC.
- On May 21, 2013, during a meeting of the ULARA Technical Subcommittee, a request was made to each of the five Parties and their Technical Subcommittee members to provide 10 years of historic water quality data for representative wells within their respective groundwater basins. This was a large undertaking for all parties, particularly for one party whose data are not kept in an electronic database; all of their data had to be entered by hand into excel spreadsheets for the 10-year baseline period. As of October 17, 2013, all parties had submitted their historic data to the Watermaster.
- Because of possible issues with funding and following proper contracting procedures for each of the Parties, in July 2013 the AC requested that the Watermaster receive proposals from other consultants for the SNMP subcontracted work. Hence, the Watermaster contacted several consulting firms and asked that they submit a formal proposal for their possible work for the ULARA SNMP.
- By October 2013, those consulting firms submitted their proposals to the Watermaster. The Watermaster then reviewed those proposals and recommended that four of the consultants be retained (the same consultants who were retained by the Water Replenishment District to prepare the SNMPS for the Central and West Coast basins). Those Consultants and their areas of expertise/service for the ULARA SNMP will include:
 - RMC Water and Environment - Implementation measures (Salt & Nutrient Management Strategies) Public Meeting Facilitation/Minutes, Technical Document Review
 - Todd Groundwater (Todd) - Salt/Nutrient Management Strategies and Modeling, Salt and Nutrient Load Allocations, Anti-degradation Analysis
 - Nellor Environmental Associates (NEA) - Basin Management Plan Elements, Groundwater Management Goals & Objectives
 - Environmental Science Associates (ESA) – CEQA Analysis

A contract with RMC was finalized in December 2013. Contracts with Todd and NEA, are nearly complete. A contract with ESA will be finalized in the future, when CEQA work is imminent.

- A portion of the new ULARA Watermaster website has been dedicated to the ongoing SNMP development. It can be accessed via <http://www.ularawatermaster.com/SNMP>.

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- A specific mailing address has also been created for the ongoing ULARA SNMP work: SNMP@ULARAWatermaster.com. Interested persons (e.g., NGOs) can send an email to that address in order for them to be added to a mailing list or obtain information at any time.
- On November 19, 2013, the ULARA Watermaster held the initial public kickoff meeting for the ULARA SNMP development. This meeting was publicized with the help of not only the ULARA AC parties, but also the RWQCB. A number of key stakeholders attended the meeting. For reference, the Sign-in Sheet from this kick-off meeting is attached. Meeting minutes can be downloaded from the ULARA SNMP website (<http://www.ularawatermaster.com/SNMP>).
- The Watermaster is currently working with the historic water quality data provided by the parties to help determine the “historic baseline conditions” of the ULARA groundwater basins. These data, once complete will be used as inputs into the spreadsheet mixing model to be performed by Todd, contracted by the ULARA Watermaster for this project. As described by Todd in their proposal, The mixing model has two primary functions:
 - Simulate regional groundwater quality within ULARA over the 15-year future planning period from WY 2012-13 through WY 2026-27 under various future salt and nutrient loading conditions, and
 - Quantify the effect of planned future recycled water projects, stormwater capture projects, salt and nutrient related implementation measures, and other land use/water use changes on regional groundwater quality.
- Ongoing data collection efforts include the summary and collection of the necessary data for the ongoing modeling effort, including summarization of historic groundwater extractions within ULARA, historic spreading of stormwater, historic water quality data for imported water, estimates of groundwater velocities in the groundwater basins, etc. For the most part, these data are not stored in an electronic database, but are published annually in the Annual Watermaster Report; therefore, the Watermaster is creating digital versions of these data. These are data that will be necessary for Todd to begin the spreadsheet mixing model for the SNMP.
- As work for the SNMP progresses, Technical Memoranda will be prepared and reviewed by the ULARA Technical Subcommittee. Following that review, each Memorandum will be distributed to the RWQCB and posted to the ULARA SNMP website so that any interested party can review and comment. The purpose of the Technical Memoranda approach is to gain consensus & “buy-in” from all parties involved at key points throughout the process. Technical Memoranda envisioned at this time include:
 - Technical Memorandum No. 1 is in progress by the ULARA Watermaster, and it will include a background discussion of the ULARA groundwater basins, the geology of the ULARA, etc. (Draft Outline Sections I. through VIII.)
 - Technical Memorandum No. 2 will summarize and analyze the data collected by the ULARA SNMP Technical Subcommittee (Draft Outline Sections IX. Through XVII.)

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- Technical Memorandum No. 3 will summarize the spreadsheet mixing model work by Todd, and include the results of that modeling. (Draft Outline Sections XIX., XXIII., XXV.)
- Technical Memorandum No. 4 will discuss Implementation measures (Salt & Nutrient Management Strategies, Draft Outline Section XVIII.). This will include discussions regarding: future recycled water use, future land development and use, salt/nutrient management options, and future projects (that are “on the books”).
- Technical Memorandum No. 5 will focus on basin management plan elements and groundwater management goals and objectives (Draft Outline sections XX. and XXI.)

Following preparation and review of the Technical Memoranda, a summary report that discusses SNMP implementation and draws conclusions from the various Technical Memoranda will be prepared. (Draft Outline sections XXVI. and XXVII.)

- The SNMP consultants that have been selected have begun work on defining existing projects/implementation measures, recycled water plans, etc., that have been proposed within the ULARA groundwater basins.
- The ULARA Watermaster and/or the Assistant Watermaster have attended numerous meetings over the last few years regarding the development of SNMPS, including those held by the RWQCB and those sponsored by independent water districts. Further, the ULARA Watermaster and/or the Assistant Watermaster has attended and participated in each of the annual “Regional Board Stakeholder Workshop on Salt and Nutrient Management Plan Development” workshops held in November of each year at the offices of the RWQCB.
- To date, the ULARA AC Parties have spent approximately \$100K in services for the ULARA SNMP. This does not include time spent by their own staff to prepare for and attend ULARA SNMP Technical Subcommittee meetings, public meetings, data collection and reporting, etc.

Based on our current progress, and the experience of the consultants who have been retained by the Watermaster, we estimate that the ULARA SNMP could be completed and ready for CEQA work in late-2015 or early-2016.

Assuming CEQA work entails no more than approximately 3 months to complete, the ULARA Watermaster hereby requests a due-date extension of the ULARA SNMP to May-2016.

As outlined above, significant progress in preparation for the SNMP has been made, and significant costs have been incurred to date by each of the ULARA Parties. Thank you for your consideration of these issues.

Attachments:

- Sign-in sheet for the Aug 22, 2011 meeting at RWQCB.

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- Sign-in sheet for the Nov 19, 2013 ULARA SNMP Public Kick-off Meeting
- Draft ULARA SNMP Outline

8/22/11

Initial Meeting between ULARA Watermaster, LADWP, L.A.B.O.S., and RWQCB

<u>NAME</u>	<u>ORGANIZATION</u>	<u>email</u>
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Richard Slade	ulara@watermaster@rcslade.com	
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ULARA SNMP Kickoff Meeting Sign-In Sheet - RSVP LIST

Last Name	First Name	Organization	email address	INITIAL
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Vlk	Laura	Freeport-McMoRan Oil & Gas	Laura_Vlk@fmi.com	

ULARA SNMP Kickoff Meeting Sign-In Sheet - INVITE LIST

Last Name	First Name	Organization	email address	INITIAL
Anderson	Terry	Greater Valley Glen Neighborhood Council	Tanderson@gvqb.us	
Andre van der Valk	Andre	Chatsworth Neighborhood Council	info@chatsworthcouncil.org	
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Duenas	Angelica	Sun Valley Neighborhood Council	angelica.m.duenas@gmail.com	
Dymand	Alan	Save LA River Open Space	SaveOpenSpace@SLAROS.org	
Garcia	Mary	Midtown North Hollywood Neighborhood Council	maryagarciaa@sbcglobal.net	
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Gonzalez	Dianabel	Panorama City Neighborhood Council	dgonzalez@panoramacitync.org	
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Moore	Lawrence	LARWQCB	lmoore@waterboards.ca.gov	
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Neal	Donald	Sylmar Neighborhood Council	Donald.Neal@sylmarnc.org	
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Palos	Gerardo	Canoga Park Neighborhood Council	gpalos62@yahoo.com	

ULARA SNMP Kickoff Meeting Sign-In Sheet - INVITE LIST

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Patel	Steve	Northridge East Neighborhood Council	s_patel@nenc-la.org	
Prendergast	Jean	LADWP	jean.prendergast@ladwp.com	
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Preliminary – for Discussion Purposes Only

**DRAFT OUTLINE
SALT & NUTRIENT MANAGEMENT PLAN
for the
UPPER LOS ANGELES RIVER AREA
November 12, 2013**

- I. Background Information
 - A. Regulatory Framework
 - B. Purposes and Goals of SNMP Process
 - C. Definition of Salts & Nutrients
 - D. Parties to Judgment, as Stakeholders
- II. Overview of Adjudication of Upper Los Angeles River Area (ULARA)
 - A. Basic History of Legal Issues
 - B. Court Trial and Final ULARA Judgment
 - C. Key Results of Judgment
 1. ULARA Boundaries
 2. ULARA Groundwater Basins and Parties to Judgment
 - San Fernando Basin
 - Sylmar Basin
 - Verdugo Basin
 - Eagle Rock Basin
- III. Description of ULARA Conditions
 - A. Cities within ULARA
 - B. Physiography and Land Use
 - C. Climate and Rainfall
 - D. Drainage and Principal Creeks
 - E. Sources of Water Supply
 - F. Groundwater Recharge Facilities
 - Spreading Basins
 - SUSMP Projects
 - G. Water Treatment Plants
 - H. Wastewater Treatment Plants
- IV. Basic Geologic Conditions
 - A. Alluvial-type Sediments
 - B. Saugus Formation
 - C. Sedimentary Rocks
 - D. Basement Rocks
- V. Basic Hydrogeologic Conditions
 - A. Potentially Water-Bearing Materials
 1. Alluvial-type Sediments
 2. Saugus Formation
 - B. Nonwater-Bearing Rocks



- VI. Groundwater Basins Within ULARA
 - A. DWR Terminology
 - B. ULARA Terminology
 - 1. San Fernando Groundwater Basin
 - 2. Sylmar Groundwater Basin
 - 3. Verdugo Groundwater Basin
 - 4. Eagle Rock Groundwater Basin
 - C. Possible Groundwater Management Zones
- VII. Water Wells and Wellfields
 - A. San Fernando Basin
 - 1. City of Burbank
 - 2. City of Glendale
 - 3. City of Los Angeles
 - B. Sylmar Basin
 - 1. City of Los Angeles
 - 2. City of San Fernando
 - C. Verdugo Basin
 - 1. City of Glendale
 - 2. Crescenta Valley Water District
 - D. Eagle Rock Basin
- VIII. Historic and Current Groundwater Levels
 - A. San Fernando Basin
 - B. Sylmar Basin
 - C. Verdugo Basin
 - D. Eagle Rock Basin
- IX. Historic and Current Groundwater Extractions
 - A. San Fernando Basin
 - 1. City of Burbank
 - 2. City of Glendale
 - 3. City of Los Angeles
 - B. Sylmar Basin
 - 1. City of Los Angeles
 - 2. City of San Fernando
 - C. Verdugo Basin
 - 1. City of Glendale
 - 2. Crescenta Valley Water District
 - D. Eagle Rock Basin
- X. Historic and Current Groundwater in Storage
 - A. San Fernando Basin
 - B. Sylmar Basin
 - C. Verdugo Basin
 - D. Eagle Rock Basin
- XI. Groundwater Quality, 10 Years Back and 13 Years Forward
 - A. Water Quality Objectives and Current RWQCB Basin Plan
 - B. Basin/Sub-Basin Assimilative Capacity for Salt and Nutrients
 - A. Constituents of Emerging Concern (CECs)



- i. Constituents
 - ii. CEC Source Identification
 - C. San Fernando Basin:
 - i. Basic Groundwater Quality
 - ii. Groundwater Contamination and EPA Operable Units
 - D. Sylmar Basin
 - i. Basic Groundwater Quality
 - ii. Groundwater Quality Problems
 - E. Verdugo Basin
 - i. Basic Groundwater Quality
 - ii. Groundwater Quality Problems
 - F. Eagle Rock Basin
 - i. Basic Groundwater Quality
- XII. Surface Water Quality
- XIII. Delivered Water Quality
- XIV. Imported Water Quality
- XV. Recycled Water Quality
- XVI. Water Balance
 - a. Assumptions, data sources, etc
- XVII. Salt & Nutrient Balance
 - A. Conceptual Model
 - i. This includes model input data such as
 - a. Aq parameters
 - b. GW velocities
 - c. Mixing depth
 - d. Subareas and Layers
 - B. Salt and Nutrient Source Identification
 - C. Salt and Nutrient Import/Export
 - i. Historical, Existing, Projected
 - D. Fate and transport of Salt and Nutrients
 - E. Other Chemicals of Concern
 - F. Projected Water Quality
- XVIII. Implementation measures (Salt & Nutrient Management Strategies)
 - A. Future Recycled Water Use
 - B. Future Land Development and Use
 - C. Salt/Nutrient Management Options
 - D. Future projects (that are “on the books”)
- XIX. Salt/Nutrient Management Strategies and Modeling
 - i. Management Strategy Model Results
- XX. Basin Management Plan Elements
- XXI. Groundwater Management Goals & Objectives
 - A. Recycled Water Use/Recharge Goals and Objectives
 - B. Stormwater Use/Recharge Goals and Objectives



- XXII. Basin Monitoring Programs – (in WM Annual Rpt)
 - A. Basin Monitoring Programs and Goals
 - XXIII. Salt and Nutrient Load Allocations
 - XXIV. CEQA Analysis
 - XXV. Anti-degradation Analysis
 - XXVI. Plan Implementation (Summary Report)
 - A. Salt and Nutrient Management Program
 - i. Organizational Structure
 - ii. Stakeholder Responsibilities
 - iii. Implementation Measures to Manage Salt and Nutrient Loading
 - iv. Salt/Nutrient Management
 - a. Water Supply Quality
 - b. Regulations of Salt/Nutrients
 - c. Load Allocations
 - d. Salt and Nutrient Source Control
 - e. CEC Source Control
 - f. Site Specific Requirements
 - v. Groundwater Resource Protection
 - vi. Additional Studies
 - B. Future Review of Salt/Nutrient Management Plan
 - i. Adaptive Management Plan
 - ii. Performance Measures
 - iii. Performance Evaluation
 - C. Cost Analysis
 - D. Implementation Schedule
 - E. Public Hearing and Adoption
 - XXVII. Conclusions
- Abbreviations/Acronyms
- References