California Regional Water Quality Control Board
Colorado River Basin Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov/~rwqcb7
73-720 Fred Waring Drive, Suite 100, Palm Desert, California 92260
Phone (760) 346-7491 · FAX (760) 341-6820

Gray Davis
Governor

May 9, 2001

TO: TAC Members and Interested Parties

RE: Salton Sea Nutrient Total Maximum Daily Load (TMDL) Technical Advisory Committee (TAC) Meeting

The next Salton Sea Nutrient Total Maximum Daily Load (TMDL) Technical Advisory Committee (TAC) meeting is scheduled for Wednesday, May 22, 2002, 10:00 AM- 12:00 PM, at the California Regional Water Quality Board (CRWQCB), Colorado River Basin Region, 73-720 Fred Waring Drive, Suite 100, Palm Desert, California. Enclosed for your review are: May 22 Meeting Notice and draft agenda; attendance list and minutes from the April 24th meeting; Marie Barrett April 24th presentation; and the current Salton Sea Nutrient TMDL TAC Workgroups. The Meeting Notice and draft agenda are available on our website: http://www.swrcb.ca.gov/rwqcb7.

Please let me know if there are any items that you would like to add to the draft meeting agenda for May 22th.

We look forward to your participation. For further information, please contact me at (760) 776-8931 or Dr. Francisco Costa at (760) 776-8937.

Teresa Newkirk Gonzales, Senior Environmental Scientist
Chief of TMDL Development

FC/hs

Enc: As noted above

cc: Regional Board Members

File: TMDL SS N
TMDL SS N TAC

NOTICE OF MEETING

DEVELOPMENT AND IMPLEMENTATION OF NUTRIENT TOTAL MAXIMUM DAILY LOADS FOR THE SALTON SEA

TECHNICAL ADVISORY COMMITTEE

Meeting Scheduled for

Wednesday, May 22, 2002
10:00 A.M.

and will be held at the

California Regional Water Quality Control Board
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

Teresa Newkirk (760) 776-8931 or Francisco Costa at (760) 776-8937

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DEVELOPMENT AND IMPLEMENTATION OF
NUTRIENT TOTAL MAXIMUM DAILY LOAD FOR THE
SALTON SEA

TECHNICAL ADVISORY COMMITTEE MEETING

MINUTES OF THE MEETING

April 24, 2002

1. Introductions

Sheila Ault, Regional Board Outreach Coordinator, welcomed members and interested parties at 10:00 AM. Attendees introduced themselves, including which agency they represented. Attached is the list of people who attended the meeting.

2. Presentations

- Khaled Bali presented "Alfalfa Irrigation Practices in the Imperial Valley" and a copy of his presentation was distributed at this meeting. Later a copy of this presentation was mailed to absentees TAC members and interested parties.
- Marie Barrett presented "New River Wetlands Project" and a copy of her presentation is enclosed.

3. Next TAC Meeting

The next meeting will be in Palm Desert, CA, on May 22, 2002 from 10:00 AM to 12:00 PM.

4. Discussion Section

Discussion points/issues were:

- TAC members voted to have monthly meetings with one hour dedicated to group meeting and the second hour to the working groups.
- The workgroup member list were re-visited and few new names added. The list is enclosed for your review. These workgroups are open to anyone wishing to participate. Please contact Francisco Costa or Al Kalin if you are interested in participating in any workgroup or if you have any suggestions about its operation.
- TAC members agreed to change the June meeting to June 19. It will be held in Imperial County.
- TAC members expressed their concern over not having enough data to estimate a numeric target. The Regional Board restated that we are required to use the Best Available Data available at the time of development.
- Francisco Costa will coordinate with The Salton Sea Authority and Salton Sea Science Office regarding a presentation on the recent technical information for Salton Sea nutrients that has been developed by both agencies.

- A list of conservation and best management practices from USDA-NRCS was distributed.
- The first quartely Regional Board contract report: "Bioavailability, Resuspension and Control of Sediment-Borne Nutrients in the Salton Sea" was distributed to the TAC. This is a preliminary report and can not be quoted.

5. Next Agenda
- Presentation on The Salton Sea Perspective by Al Kalin and Nicole Rothfleisch.

6. Announcements
- Salton Sea Nutrient TMDL CEQA scoping meeting – 5/22 – 1:00 PM to 3:00 PM.
- The Federal 2003 Request for Proposals (RFPs) for both the Nonpoint Source (NPS) Implementation (Clean Water Act (CWA) 319) & the Water Quality Planning (CWA 205(j)) Grants are now available. Both RFPs and the Application Reference Document (ARD) for the RFPs can be accessed on the State Water Resources Control Board (SWRCB) web site at http://www.swrcb.ca.gov/nps/cwa_rfps.html. The deadline for submitting proposals for both the 319 and 205(j) grants is June 17, 2002 at 5 p.m.

7. Adjournment
The meeting was adjourned at 12:00 PM.

Development and Implementation of the Nutrient
Total Maximum Daily Loads (TMDLs) for the Salton Sea

Technical Advisory Committee Meeting

Attendance Sheet
April 24, 2002

NAME	AFFILIATION
George Ray	Farmer
Robert Robinson	CVWD
Jim Setmire	USGS/USBR
Daniel Bradshaw	IID
Nicole Rothfleisch	ICFB
Al Kalin	Farmer
Antonio Rivera	IID
Linden Anderson	Riverside County Farm Bureau
John Pierre Menvielle	Farmer
Steve Charlton	IID
Eldon Lee	City of Coachella
Brad Luckey	IID
Jason Smith	NRCS/USDA
Khaled Bali	UCCE
Dan Cain	SSA
Chuck Schmidt	Weston Farm Service
Marie Barrett	New River Wetlands Project
Susanne Lockhart	Dudek & Associates
Sabine Huynen	University of Redlands
Teresa Newkirk	CRWQCB(7)
Francisco Costa	CRWQCB(7)
Sheila Ault	CRWQCB(7)
Jose Cortez	CRWQCB(7)

Salton Sea Nutrient TMDL TAC Workgroups

Numeric Target Development	Existing Projects Evaluation	BMT Development
George Ray (Farmer)	Jim Setmire (BR)	Jason Smith (USDA/NRCS)
Khaled Bali (UCCE)	Tom Kirk (SSA)	Eric McGee (Western Farm Service)
Debi Livesay (Torres Martinez)	Doug Barnum (USGS)	Khaled Bali (UCCE)
G. S. Sidhu (RCACO)	Carol Roberts (USFWS)	David Ritter (ICACO)
Jim Setmire (BR)	Susanne Lockhart (Dudek and Associates) (1sf priority)	Nicole Rothfleisch (ICFB)
Carol Roberts (USFWS)	Elston Grubaugh (IID)	Susanne Lockhart (Dudek and Associates) (2nd priority)
Charlie Pelizza (USFWS)	Eldon Lee (CC)	Al Kalin (Farmer)
Elston Grubaugh (IID)	Sabine Huynen (U Redlands)	Elston Grubaugh (IID)
Eldon Lee (CC)	J. Menvielle (Farmer)	Robert Robinson (CVWD)
Charlie Phillips (SAIC)		Linden Anderson (RCFB)
Doug Barnum (USGS)		
Robert Robinson (CVWD)		

NEW RIVER WETLANDS PROJECT

Images
From a New Wetlands
Habitat

CITIZENS TASK FORCE ON THE NEW RIVER

- 1997 - LEON LESICKA AND DUNCAN HUNTER FORMED CTFNR TO ADDRESS PROBLEMS THRU FOLLOWING ACTIONS:
- OBTAIN GRANT MONIES
- OBTAIN NECESSARY PERMITS
- CONSTRUCT WETLANDS - 2 SITES
- CONSTRUCT AERATION STRUCTURES ALONG NEW RIVER

PROBLEM

- CONTENTS:
  - AG RUNOFF
  - RAW SEWAGE
  - FOAM
  - ORGANIC COMPOUNDS
  - METALS
  - PESTICIDES
  - DISEASES

WHY WETLANDS?

- TMDLS
- BREAK DOWN NUTRIENTS
- HABITAT
- ABSORB HEAVY METALS
- FILTER OUT TOXINS
- MASSIVE FOOD BASE

WHY WETLANDS?

- PROCESS NITRATES
- RELEASE OXYGEN
- REMOVE CARBON DIOXIDE
- RECREATION
- BIRD WATCHING

HOW DOES IT WORK?

- Decreases acidity, metals, pathogens, trace organics, nitrogen and phosphates
- Aquatic plants provide oxygen to nitrifying microorganisms
- In presence of oxygen, nitrifying bacteria convert ammonium to nitrate which is converted to gaseous nitrogen by denitrifying bacteria and lost to atmosphere

HAS IT BEEN DONE BEFORE?

- Most systems used for domestic wastewater
- Agricultural wetlands differ in necessity to remove sediment

DESIGN CONSIDERATIONS

- Area requirements
- Water depth
- Number of cells
- Cell shape
- Flow velocity
- Wastewater retention time
- Substrate

PILOT PROJECT

- IMPERIAL SITE
  - 68 ACRES OFF RICE DRAIN
  - AGRICULTURAL WATER
  - SETTLING POND
  - FOUR WETLANDS
- BRAWLEY SITE
  - 7 ACRES ON IMPERIAL RESEARCH STATION
  - NEW RIVER WATER
  - SETTLING POND
  - TWO WETLANDS

SPECIFICATIONS

Site	Water source	Wet Acres	Flow rate
Imperial	Ag drain	40	4 cfs
Brawley	New River	5	1 cfs

SPECIFICATIONS

Site	Total water in pond	Retention time	Maximum depth
Imperial	1.6 M cf	Sed: 9da cell 1:3.5 cell2:2.75 cell 3:2.5 cell 4: 3	Sed: 14 ft cells: 4 ft
Brawley	.7 M cf	Sed: 5.5da cell 1: 2	Sed: 4 ft cells: 4 ft.

MONITORING RESULTS

2001