

VOC R7

From: <McNaughton.Eugenia@epamail.epa.gov>
To: <wilscj@dwq.swrcb.ca.gov>, <harrk@dwq.swrcb.ca.gov>
Date: 1/3/03 4:22PM
Subject: Re: RB7 listing of New River for VOCs

I have reviewed the Region 7 New River VOC data selectively for the period beginning January 1997 through June 2002. The data sets are posted on the CRWQCB RB7 web site. Where there were no questions about the data (i.e., numerical results repeated exactly for each constituent in two different months), I reviewed the results of the quarterly sampling events, where samples had been taken every three hours over a 24-hour period (that level of effort has been reduced in the last year to two samples, based on review of the monitoring program by the Regional Board staff).

I reviewed 19 data sets, in which 14 VOCs were detected, including 1,2-dichlorobenzene (o-DCB), 1,3-dichlorobenzene (p-DCB), toluene, m,p xylenes, o xylene, 1,2,4-trimethylbenzene, benzene, chloroform, ethylbenzene, p-isopropyltoluene (p-Cymene), MTBE, methylene chloride, tetrachloroethylene (PCE), and naphthalene.

Cal mel
Xylene = 1750
1-fluorene = 100

Some VOCs were detected every time or almost every time (toluene [19] and p-DCB [18], m,p xylenes [14], chloroform [14], o xylene [14]. Some were detected only once or twice (benzene [2], MTBE [2], tetrachloroethylene [1] and naphthalene [1]. The rest were detected half or less-than-half-of-data-sets reviewed.

} OK, so ...

Most constituents were found at or close to the detection limit of 0.5ug/L, though some were as high as 6x the detection limit (toluene).

If Ref number is correct then this appears to be true

Eight of the detected VOCs are associated with water quality criteria: o-DCB (2700 ug/L for water), p-DCB (400 ug/L), toluene (6800 ug/L), benzene (1.2 ug/L), chloroform (5.7 ug/L), ethylbenzene (3100 ug/L), methylenechloride (4.7 ug/L) tetrachloroethylene (0.8 ug/L).

are these in the CTR?

For VOCs detected in New River samples, only one exceeded a WQ criterion, tetrachloroethylene, detected in 1 of the 19 data sets reviewed at 2.2 ug/L, exceeding the criterion of 0.8 ug/L.

where? in the CTR?

On the basis of this analysis, I would recommend that the New River not be listed for VOCs.

Eugenia McNaughton, Ph.D.
Environmental Scientist
WTR-4 Region 9
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105
415-972-3411 (T)
415-947-3537 (F)

OK - except that if we listed in '98 for VOCs

CC: <Smith.DavidW@epamail.epa.gov>, <Kuhlman.Catherine@epamail.epa.gov>, <Hashimoto.Janet@epamail.epa.gov>, <Hess.Gary@epamail.epa.gov>

Are data rigorous enough to do list? I didn't ~~write to~~ not sure.

VOCs in New River Issue

- I. New River listed in 1998 for VOCs
- II. For 2002, RWQCB asked that specific VOCs be identified
- III. Monitoring data collected 1995-date (<http://www.swrcb.ca.gov/rwqcb7/newriver/dataindex.html>) shows presence of various VOCs
 - A. associated with untreated /improperly discharged industrial waste from Mexico into the USA
 - B. "data collected by the USBOR near the New River-Salton Sea Delta didn't detect any major present [sic] of VOCs, which indicate [sic] that the VOCs impairment may not affect the whole 60-mile stretch of the New River in the USA. **Additional data is necessary to characterize the impacted river segment.**" [*emphasis added*]
- IV. WQ standards used are "quantitative and qualitative standards for the New River at the International Boundary, as provided for in Minute No. 264 of the Mexican-American Treaty. Minute No. 264 of this treaty prohibits the discharge of untreated industrial wastes in the New River."
- V. Possible pertinent WQ objectives:
 - A. narrative objective against toxicity (Basin Plan Page 3-2)
 - B. narrative objective against harmful chemicals (Page 3-4)
 - C. narrative toxic objective (Page 3-5)
 - D. quantitative standards for VOCs--**not found in Table 3-1 (Page 3-7)**
 - E. no specific objectives found in Basin Plan for chloroform, 1,2-dicchlorobenzene (O-DCB), 1,4-dicchlorobenzene (P-DCB), benzene, toluene, m,p-xylenes, o-xylene, 1,2,4-trimethylbenzene, p-isopropyltoluene (p-cymene), naphthalene, methylene chloride (dicloromethane), methyl ter-butyl ether (MTBE), ethyl benzene, tetrachloroethylene, trichlorofluoromethane (freon 11), or 1,3,5-trimethylbenzene. [**unless related to "2,4, D" or chlorinated hydrocarbons like toxaphene?**]
- VI. The monitoring result numbers, unfortunately, mean nothing to me without additional inquiry (i.e., there is apparently no numeric objective to compare them to in the Region 7 Basin Plan).
- VII. Conclusions
 - A. RWQCB staff's fears are based solely on the presence of these subsances.
 - B. These are not new listings. The rule has been, without new information, we neither list or de-list.
 - C. USEPA seems to have a big problem with identifying these constituents. (Could there be a political motive?)

Recommendation:

Either (1) maintain listings as recommended (correct Fact Sheets to note that these are not new listings, or (2) return to 1998 listing ("Volatile Organics/VOCs" without identifying individual VOCs further)

If there had not been a '98 listing, and these were new RWQCB staff recommendations, I would probably have agreed with the USEPA recommendation (assuming that the WQ standards she quotes are correct.) (Frankly, I don't feel strongly either way.)

Best is
data suggest
to de-list?

I'm unsure.

This is conservative
approach.

VOC R7

From: Lori Okun
To: Wilson, Craig J.
Date: 1/9/03 2:01PM
Subject: 303(d) Listing for New River VOCs

This e-mail responds to the issues Eugenia McNaughton raised in her January 3, 2003 e-mail recommending de-listing the New River for VOCs.

Section 303(d) of the Clean Water Act requires the listing of water bodies for which effluent limits are not stringent enough to protect water quality standards, i.e., those waters that already exceed water quality standards. Water quality standards include both narrative and numeric criteria, as well as beneficial (designated) uses. (40 CFR §130.2(d).)

The narrative water quality criteria for the New River for volatile organic compounds (VOCs) require that:

1. The waters of the [New] River shall be free of untreated domestic and industrial waste waters.
2. The waters shall be free from substances that may be discharged into the River as a result of human activity in concentrations which are toxic or harmful to human, animal or aquatic life or which may significantly impair the beneficial uses of such waters. ...

[Water Quality Control Plan for the Colorado River Basin Region, p. 3-5.] The beneficial uses of the New River are FRSH, IND [potential use], REC I, REC II, WARM, WILD and RARE. Ms. McNaughton's e-mail indicates that VOCs were detected on multiple occasions. This violates the first narrative objective, above, which prohibits any untreated industrial waste. The detected levels also violate the second narrative objective, since VOCs are present at levels that may impair beneficial uses.

Further, Ms. McNaughton's e-mail considers only the water quality standards established by the California Toxics Rule. Section 303(d) listing criteria must consider both narrative and numeric criteria. Ms. McNaughton's analysis improperly excludes any consideration of the narrative criteria, above. Her conclusion that VOCs detected in the New River only exceeds one water quality criterion is therefore incorrect.

Please call me if you have further questions.

Lori T. Okun
Staff Counsel

Lori T. Okun
Staff Counsel
(916) 341-5165

Confidentiality Notice: This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and contains confidential information protected by the attorney client privilege and/or is attorney work product. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message.

CC: Angel, Jose; Gruenberg, Phil; Wylie, Doug



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

FACSIMILE TRANSMITTAL SHEET

TO: SEE LIST CRAIG J. WILSON	FROM: Doug Wylie
COMPANY: SWRCB	DATE: 1/9/03
FAX NUMBER: 916/341-5500 5556	SENDER'S FAX NUMBER: 760-341-6820
PHONE NUMBER: 916/341-5560	SENDER'S PHONE NUMBER: 760-346-6585
RE: NEW RIVER VOC LISTING	TOTAL NO. OF PAGES INCLUDING COVER: 4

URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY PLEASE RECYCLE

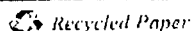
NOTES/COMMENTS:

Attached is the letter we sent to the EPA in 1998 clarifying the 1998 303(d) List submittal. On page 2 you will see the rationale for the listing of VOCs in the New River, which is still our position. Until untreated industrial wastes discharged in Mexico are eliminated, our Regional Board firmly believes this listing is necessary. Both the SWRCB and the EPA agreed in 1998 with the Regional Board.

To demonstrate the urgent attention needed for the pollution in the New River, our Board held a public workshop on the subject October 16, 2002. Speakers at the workshop included State Board Member Pete Silva, Celeste Cantu, Ricardo Martinez from CAL-EPA, and Eugenia McNaughton from the EPA who noted that the EPA had recently approved the New River Pathogen TMDL and thanked the Boards for their efforts in preparing the documents.

Additionally, the Regional Board attempted to de-list the New River last year for nutrients. The State Board staff overruled our Regional Board for several reasons. They stated in correspondence to us that de-listing should be somewhat more onerous than listing a pollutant, meaning that there must be proof that the detected pollutants are not harming aquatic life. The EPA has not provided any proof in their review of the VOC data. Now it appears that the State Board staff is being inconsistent in its procedures regarding de-listing. The issue here is protection of aquatic life. The river is not a source of drinking water, so water quality criteria pertaining to drinking water is immaterial. Water quality standards for protection of aquatic life are generally not available for the VOCs detected in the river, which could suggest that they are not a high priority threat in surface waters. We believe that de-listing may suggest that VOCs in the river is not a concern and thus open the door to potential further degradation. Our position is that as long as VOCs continue to be detected through our very limited monitoring program, and as long as substantial amounts of raw sewage are dumped into the river, then de-listing is inappropriate.

California Environmental Protection Agency



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

COLORADO RIVER BASIN - REGION 7

73-7.3 FRED WARING DR., SUITE 100
PALM DESERT, CA 92260
Phone: (760) 348-7491
FAX: (760) 341-6820



July 28, 1998

Joe Karkoski
California TMDL Coordinator
US Environmental Protection Agency
c/o State Water Resources Control Board
901 P Street
Sacramento, CA 95814

Re: Regional Board's staff Response to EPA's Request for Clarification of CRBRWQCB's
1998 CWA Section 303(d) List Submittal

On July 10, 1998, the Colorado River Basin Regional Water Quality Control Board's staff (Regional Board's Staff) received a request from EPA for clarification of Regional Board's 1998 Clean Water Act Section 303(d) list. The following Regional Board's staff response should clarify the issues raised in the request:

A. Rational for Additional Pollutants / Stressors in the 1998 CWA Section 303(d) List

1. **New River - Bacteria**

The Water Quality Control Plan (Basin Plan) for the Colorado River Basin Region contains the quantitative standards for the New River as provided by Minute 264 of the Mexican/American Water Treaty (Table 3-1 of Basin Plan). The standard for fecal coliform for the New River upstream of the discharge canal (located in Mexico) is 30,000 colonies per 100 ml, with no single sample to exceed 60,000 colonies per 100 ml. The New River at the International Boundary sampling location is situated downstream of the discharge canal (in the United States). The Fecal Coliform count for water samples collected in 1997 at the New River at the International Boundary had a lowest and highest value of 75,000 and 400,000 MPN/100ml respectively. These values exceed the above standard. Water Contact Recreation (REC I) and Non-Contact Water Recreation (REC II) are among the beneficial uses of the New River (Table 2-3 of Basin Plan). The water quality objectives for REC I and REC II provide that no sample shall exceed 400 and 2,000 per ml of E. coli respectively. An advisory has been issued by the Imperial County Health Department warning against the consumption of any fish caught from the New River. (Listing factors 2 and 3 of 1997 303(d) Listing Guidelines)

2. **New River - Nutrients**

Water samples collected in 1997 indicated low concentrations of dissolved oxygen and high concentrations of ammonia nitrogen and phosphorus (PO₄ - P) in violation of the water quality objective for biostimulating substances. Also, eutrophication in the Salton Sea has recently been indicated by some scientists

as one of the Sea's primary problems needing prompt implementation of corrective measures. (Listing factor 3 of 1997 303(d) Listing Guidelines)

3. **New River - VOCs**

The Basin Plan contains the quantitative and qualitative standards for the New River as provided for in Minute No. 264 of the Mexican-American Water Treaty. The implementation of Minute No. 264 of this Treaty is part of the Water Quality Objectives of the New River. There has been continuous violations of Minute No. 264 of this Treaty which prohibits the discharge of untreated industrial waste in Mexico's New River watershed. Observations and monitoring results have indicated that untreated industrial wastes continues to be discharged in the Mexicali valley. A VOC TMDL has been judged to be necessary to remedy the continued violations. (Listing factor 3 of 1997 303(d) Listing Guidelines)

4. **Salton Sea - Nutrients**

Monitoring results have shown a trend of nitrogen : phosphorus ratio of 5:1 in the Salton Sea, and this has led to low dissolved oxygen content, eutrophication, and fish kills. (Listing factor 3 of 1997 303(d) Listing Guidelines)

5. **Salton Sea - Salinity**

The total dissolved solids (TDS) concentration or salinity of the sea is approximately 44,000 mg/l. The Pacific Ocean has an average TDS of approximately 35,000 mg/l. The water quality objective for the Salton Sea is to stabilize salinity at 35,000 mg/l. Increasing salinity will lead to a steady and sharp decline in the Sea's beneficial uses without implementation of appropriate control measures. (Listing factor 3 of 1997 303(d) Listing Guidelines)

B. Response to Comments

1. **NRDC and Prioritization**

i. **NRDC Comment:**

"303(d) list seems largely unchanged compared to the 1998 list and does not reference or discuss any review of data, request for information from the public, or the results of such a review or public provision of information."

RWQCB's Staff Response:

The 1998 303(d) list was developed in accordance with "1998 Clean Water Act (CWA) Section 303(d) Listing Guidelines for California," dated August 11, 1997. There are significant changes in the two lists and more are expected in the future. This should, and will be a dynamic process.

ii **NRDC Comment**

"We are concerned about, and request clarification concerning, the statement in the Notice of Public Hearing that "pollutants noted do not include all pollutants." We believe that the essential starting point under

Section 303(d) is to comprehensively survey and review the state of water bodies so that the resulting list, if implemented with the establishment of TMDLs, will address continuing impairment."

RWQCB's Staff Response:

The state of the listed water bodies were reviewed in compliance with CWA Section 305(b) and all pollutants that cause or threatened to cause non-attainment of the beneficial uses and water quality objectives for the water bodies were listed in accordance with the aforementioned 1998 CWA Section (303) guidelines. Lack of adequate monitoring data will undoubtedly result in some pollutants not being listed. Resources are presently inadequate to perform comprehensive surveys of the state of Regional water bodies.

iii NRDC Comment:

".....the information we received does not disclose the manner by which listed water bodies were ranked....."

RWQCB's Staff Response:

Prioritization was based on a combination of the following factors:

- Water body significance,
- The degree of impairment, especially the beneficial use impairment,
- the potential for recovery of beneficial use and water quality objectives, and
- Best professional judgment.

2. Oral Comments.

The minutes of the January, 1998 Regional Board meeting contains all responses to oral comments at the meeting and is hereby enclosed for your reference.

We hope this clarifies your concern regarding our 1998 update of the 303(d) list. Should you have any questions, please call Chris Igbinedion at (760) 776-8937.



LIANN CHAVEZ
Senior Engineering Geologist

Encl.

OCI/oci

File Ref. BP/CWS 3.0/CWA 303(d)



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

FACSIMILE TRANSMITTAL SHEET

TO: SEE LIST CRAIG J. WILSON	FROM: Doug Wylie
COMPANY: SWRCB	DATE: 1/9/03
FAX NUMBER: 916/341- 5500 5556	SENDER'S FAX NUMBER: 760-341-6820
PHONE NUMBER: 916/341-5560	SENDER'S PHONE NUMBER: 760-346-6585
RE: NEW RIVER VOC LISTING	TOTAL NO. OF PAGES INCLUDING COVER: 4

URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY PLEASE RECYCLE

NOTES/COMMENTS:

Attached is the letter we sent to the EPA in 1998 clarifying the 1998 303(d) List submittal. On page 2 you will see the rationale for the listing of VOCs in the New River, which is still our position. Until untreated industrial wastes discharged in Mexico are eliminated, our Regional Board firmly believes this listing is necessary. Both the SWRCB and the EPA agreed in 1998 with the Regional Board.

To demonstrate the urgent attention needed for the pollution in the New River, our Board held a public workshop on the subject October 16, 2002. Speakers at the workshop included State Board Member Pete Silva, Celeste Cantu, Ricardo Martinez from CAL-EPA, and Eugenia McNaughton from the EPA who noted that the EPA had recently approved the New River Pathogen TMDL and thanked the Boards for their efforts in preparing the documents.

Additionally, the Regional Board attempted to de-list the New River last year for nutrients. The State Board staff overruled our Regional Board for several reasons. They stated in correspondence to us that de-listing should be somewhat more onerous than listing a pollutant, meaning that there must be proof that the detected pollutants are not harming aquatic life. The EPA has not provided any proof in their review of the VOC data. Now it appears that the State Board staff is being inconsistent in its procedures regarding de-listing. The issue here is protection of aquatic life. The river is not a source of drinking water, so water quality criteria pertaining to drinking water is immaterial. Water quality standards for protection of aquatic life are generally not available for the VOCs detected in the river, which could suggest that they are not a high priority threat in surface waters. We believe that de-listing may suggest that VOCs in the river is not a concern and thus open the door to potential further degradation. Our position is that as long as VOCs continue to be detected through our very limited monitoring program, and as long as substantial amounts of raw sewage are dumped into the river, then de-listing is inappropriate.

California Environmental Protection Agency

Recycled Paper

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

COLORADO RIVER BASIN - REGION 7

73-740 FRED WARING DR., SUITE 100
PALM DESERT, CA 92260
Phone: (760) 346-7491
FAX: (760) 341-6820



July 28, 1998

Joe Karkoski
California TMDL Coordinator
US Environmental Protection Agency
c/o State Water Resources Control Board
901 P Street
Sacramento, CA 95814

Re: Regional Board's staff Response to EPA's Request for Clarification of CRBRWQCB's
1998 CWA Section 303(d) List Submittal

On July 10, 1998, the Colorado River Basin Regional Water Quality Control Board's staff (Regional Board's Staff) received a request from EPA for clarification of Regional Board's 1998 Clean Water Act Section 303(d) list. The following Regional Board's staff response should clarify the issues raised in the request:

A. Rational for Additional Pollutants / Stressors in the 1998 CWA Section 303(d) List:

1. **New River - Bacteria**

The Water Quality Control Plan (Basin Plan) for the Colorado River Basin Region contains the quantitative standards for the New River as provided by Minute 264 of the Mexican/American Water Treaty (Table 3-1 of Basin Plan). The standard for fecal coliform for the New River upstream of the discharge canal (located in Mexico) is 30,000 colonies per 100 ml, with no single sample to exceed 60,000 colonies per 100 ml. The New River at the International Boundary sampling location is situated downstream of the discharge canal (in the United States). The Fecal Coliform count for water samples collected in 1997 at the New River at the International Boundary had a lowest and highest value of 75,000 and 400,000 MPN/100ml respectively. These values exceed the above standard. Water Contact Recreation (REC I) and Non-Contact Water Recreation (REC II) are among the beneficial uses of the New River (Table 2-3 of Basin Plan). The water quality objectives for REC I and REC II provide that no sample shall exceed 400 and 2,000 per ml of E. coli respectively. An advisory has been issued by the Imperial County Health Department warning against the consumption of any fish caught from the New River. (Listing factors 2 and 3 of 1997 303(d) Listing Guidelines)

2. **New River - Nutrients**

Water samples collected in 1997 indicated low concentrations of dissolved oxygen and high concentrations of ammonia nitrogen and phosphorus (PO₄ - P) in violation of the water quality objective for biostimulating substances. Also, eutrophication in the Salton Sea has recently been indicated by some scientists

as one of the Sea's primary problems needing prompt implementation of corrective measures. (Listing factor 3 of 1997 303(d) Listing Guidelines)

3. **New River - VOCs**

The Basin Plan contains the quantitative and qualitative standards for the New River as provided for in Minute No. 264 of the Mexican-American Water Treaty. The implementation of Minute No. 264 of this Treaty is part of the Water Quality Objectives of the New River. There has been continuous violations of Minute No. 264 of this Treaty which prohibits the discharge of untreated industrial waste in Mexico's New River watershed. Observations and monitoring results have indicated that untreated industrial wastes continues to be discharged in the Mexicali valley. A VOC TMDL has been judged to be necessary to remedy the continued violations. (Listing factor 3 of 1997 303(d) Listing Guidelines)

4. **Salton Sea - Nutrients**

Monitoring results have shown a trend of nitrogen : phosphorus ratio of 5:1 in the Salton Sea, and this has led to low dissolved oxygen content, eutrophication, and fish kills. (Listing factor 3 of 1997 303(d) Listing Guidelines)

5. **Salton Sea - Salinity**

The total dissolved solids (TDS) concentration or salinity of the sea is approximately 44,000 mg/l. The Pacific Ocean has an average TDS of approximately 35,000 mg/l. The water quality objective for the Salton Sea is to stabilize salinity at 35,000 mg/l. Increasing salinity will lead to a steady and sharp decline in the Sea's beneficial uses without implementation of appropriate control measures. (Listing factor 3 of 1997 303(d) Listing Guidelines)

B. Response to Comments

1. **NRDC and Prioritization**

i. **NRDC Comment**

"303(d) list seems largely unchanged compared to the 1998 list and does not reference or discuss any review of data, request for information from the public, or the results of such a review or public provision of information."

RWQCB's Staff Response:

The 1998 303(d) list was developed in accordance with "1998 Clean Water Act (CWA) Section 303(d) Listing Guidelines for California," dated August 11, 1997. There are significant changes in the two lists and more are expected in the future. This should, and will be a dynamic process.

ii **NRDC Comment**

"We are concerned about, and request clarification concerning, the statement in the Notice of Public Hearing that "pollutants noted do not include all pollutants." We believe that the essential starting point under

Section 303(d) is to comprehensively survey and review the state of water bodies so that the resulting list, if implemented with the establishment of TMDLs, will address continuing impairment."

RWQCB's Staff Response:

The state of the listed water bodies were reviewed in compliance with CWA Section 305(b) and all pollutants that cause or threatened to cause non-attainment of the beneficial uses and water quality objectives for the water bodies were listed in accordance with the aforementioned 1998 CWA Section (303) guidelines. Lack of adequate monitoring data will undoubtedly result in some pollutants not being listed. Resources are presently inadequate to perform comprehensive surveys of the state of Regional water bodies.

iii NRDC Comment:

".....the information we received does not disclose the manner by which listed water bodies were ranked....."

RWQCB's Staff Response:

Prioritization was based on a combination of the following factors:

- Water body significance,
- The degree of impairment, especially the beneficial use impairment,
- the potential for recovery of beneficial use and water quality objectives, and
- Best professional judgment.

2. Oral Comments.

The minutes of the January, 1998 Regional Board meeting contains all responses to oral comments at the meeting and is hereby enclosed for your reference.

We hope this clarifies your concern regarding our 1998 update of the 303(d) list. Should you have any questions, please call Chris Igbinedion at (760) 776-8937.



LIANN CHAVEZ

Senior Engineering Geologist

Encl.

OCI/oci

File Ref: BP/CWS 3.0/CWA 303(d)