To Jeanine Townsend, Clerk to the State Water Board:

Friends of the North Fork works on water quality issues in areas that are not directly covered by the policy and amendment, even though these areas are in the Sacramento River basin. Friends works to protect the waters including drinking water quality in Folsom Reservoir and in the North Fork American River above Folsom Dam and reservoir. We have board and active members who draw drinking water from the North Fork a short distance below where the discharges from the Colfax POTW enter the river, and my tap water in Citrus Heights includes water drawn from Folsom Reservoir. Our watershed areas of concern do not include significant irrigated agriculture and we do not address this aspect of the policy. POTW discharges and urban runoff are significant issues as are any sources of pathogens.

We began our involvement very late in the stakeholder group process and found no interest on its part in our issues.

Friends supports the non-substantive process changes below, and, per the State Board's direction, to begin development drinking water amendments that are not on the agendas of the dischargers or Regional Board Chair Longley.

Friends learned about the stakeholder/working group several years ago when there was a report about it on the regional board agenda, and I then attended some of the meetings. We have concerns about the thousands of unregulated drinking water contaminants that are in our waters.

We believe that the State Board will modify of its own accord the misleading and discrediting stakeholder group findings, for example, that certain pollutants "will not likely increase in the future," "will not increase in the future, " and "because water quality is expected to slightly improve with the three future scenarios that were modeled, no treatment targets were exceeded with the existing drinking water regulatory environment." Staff Report page 13. It also is an untenable to suggest that existing water quality has only minor problems that will essentially self-correct in the future.

References to Appendix D and the Synthesis Report should be stricken. It is not and should not be in the materials.

As we have stated to the Central Valley Regional Board, Friends expects that matters in or absent from the policy and amendment that affect NPDES permits will be addressed in the request we are developing to USEPA to begin an investigation that we believe with lead it to withdraw its delegation of the NPDES program from any involvement by the Central Valley Regional Water Quality Control Board and to require modification of some State Board NPDES procedures and directives. These and other problems may suggest withdrawal of the entire NPDES delegation.

1. The title is changed to: "Municipal Discharger Amendment to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins."

2. The names of the individuals, municipalities, and companies that individuals represent and their participation need to be identified. Any writings drafted in whole or in part by non board staff need to be identified along with the authors. E.g., The contributions of the Larry Walker group are notably absent. The Work Group/stakeholder process needs to be accurately described as is appropriate up front in the policy, in the basin plan amendment, and in the basin Basin Plan.

3. The limitation of the policy and amendments to waters below first major dams is indefensible. The State Board must direct and take a key role in overseeing the preparation of a Drinking Water Policy for the delta's upstream major dams and the water in the major dam reservoirs and the tributaries to the major dams. Many major water planning and use efforts are being made based on studies that are limited to drinking water investigation only below first dams.

4. Friends focused on antibiotic resistant pathogens by handing out to the stakeholder group to no discernible effect this abstract of the study that found antibiotic resistant organisms being released in Duluth wastewater in to pristine waters.

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Article

Tertiary-Treated Municipal Wastewater is a Significant Point-Source of Antibiotic Resistance Genes into Duluth-Superior Harbor

Timothy M. LaPara , Tucker R Burch , Patrick J McNamara , David T Tan , Mi Yan , and Jessica J Eichmiller
Environ. Sci. Technol., Just Accepted Manuscript
DOI: 10.1021/es202775r

Publication Date (Web): October 7, 2011

Abstract

In this study, the impact of tertiary-treated municipal wastewater on the quantity of several antibiotic resistance determinants in Duluth-Superior Harbor was investigated by collecting surface water and sediment samples from 13 locations in Duluth-Superior Harbor, the St. Louis River and Lake Superior. Quantitative PCR (qPCR) was used to target three different genes encoding resistance to tetracycline (tet(A), tet(X), and tet(W)), the gene encoding the integrase of class 1 integrons (intI1), total bacterial abundance (16S rRNA genes) as well as total and human fecal contamination levels (16S rRNA genes specific to the genus Bacteroides). The quantities of tet(A), tet(X), tet(W), intI1, total Bacteroides, and human-specific Bacteroides were typically 20-fold higher in the tertiary-treated wastewater than in nearby surface water samples. In contrast, the quantities of these genes in the St. Louis River and Lake Superior were typically below detection. Analysis of sequences of tet(W) gene fragments from 4 different samples collected throughout the study site supported the conclusion that tertiary-treated municipal wastewater is a point-source of resistance genes into Duluth-Superior Harbor. This study demonstrates that the discharge of exceptionally-treated municipal wastewater can have a statistically significant effect on the quantities of antibiotic resistance genes in otherwise pristine surface waters.

5. The stakeholder/Workgroup prioritized list of water quality constituents of the group's concern includes, "Pathogens: (Giardia, Cryptosporidium) and indicator organisms (total coliform, fecal coliform, Enterococcus, Escherichi coli)." Page 12. But the group had no interest in addressing indicator species in any meaningful manner that I could detect. When Giardia and Cryptosproidium and indicator organisms came up in the meetings, I addressed it at a meeting and then regarding the minutes of that meeting in an e-mail to the group's e-mail list:

From: MikeG@gvn.net
Subject: **Re: CVDWPWG Meeting Minutes from May 8th**
Date: May 21, 2012 6:49:36 PM PDT
To: jsimi@waterboards.ca.gov
Cc: smcconnell@waterboards.ca.gov, DanielleB@acwa.com, daveb@acwa.com, rfiroved@calrice.org, tjohnson@calrice.org, sharader@calwater.ca.gov, lorloff@ccwater.com, Carl.Lischeske@cdph.ca.gov, Kim.Wilhelm@cdph.ca.gov, hlin@cityofsacramento.org, shuun@cityofsacramento.org, tpirondini@cityofvacaville.com, VShidell@cityofvacaville.com, elaine.archibald@comcast.net, farmeratlaw@comcast.net, jccoburn@comcast.net, eofficer@cvcwa.org, pgilbert@ebmud.com, twhall@eoainc.com, albright.david@epa.gov, AMiller@Geosyntec.com, PMangarella@Geosyntec.com, jdickeyagro@gmail.com, BrianL@lwa.com, TomG@lwa.com, lsmith@mwdh2o.com, bschmid@newfields.com, jkimmelshue@newfields.com, bruceh@norcalwater.org, maguerin@rmanet.com, tamayod@SacCounty.NET, dornl@sacsewer.com, voightl@sacsewer.com, cuwa@sbcglobal.net, cuwaexec@sbcglobal.net, tdunham@somachlaw.com, joel@systechwater.com, jongerth@uow.edu.au, fbrewster@valleywater.org, caroldi@water.ca.gov, cgarcia@water.ca.gov, jchriste@water.ca.gov, rpisor@water.ca.gov, suits@water.ca.gov, byee@waterboards.ca.gov, froddy@waterboards.ca.gov, jbruns@waterboards.ca.gov, klarsen@waterboards.ca.gov, jpelz@westyost.com, KGies@westyost.com

Jay,

I thought I saw a copy of the minutes attached to this e-mail and that it it did not mention the concern of Friends of the North Fork about the existence of research on the extent to which indicator organisms are indicative of or represent pathogen occurrence. However, I can't find the minutes and so I may be mistaken. Please send another.

Plenty of research seems to bear out our concerns about the importance of this issue. A friend using PubMed found a number of examples, for example, this one:

Applied and Environmental Microbiology, June 2005, p. 3163-3170, Vol. 71, No. 6
0099-2240/05/$08.00+0 doi:10.1128/AEM.71.6.3163-3170.2005

Validity of the Indicator Organism Paradigm for Pathogen Reduction in Reclaimed Water and Public Health Protection

Valerie J. Harwood,[1]* Audrey D. Levine,[2] Troy M. Scott,[3] Vasanta Chivukula,[1] Jerzy Lukasik,[3] Samuel R. Farrah,[4] and Joan B. Rose[5]
Department of Biology, SCA 110, University of South Florida, 4202 E. Fowler Ave., Tampa, Florida 33620,[1] Department of Civil and Environmental Engineering, ENB 118, University of South Florida, 4202 E. Fowler Ave., Tampa, Florida 33620,[2] Biological Consulting Services of N. Florida, Inc., 4641 N.W. 6th Street, Suite A, Gainesville, Florida 32609,[3] Department of Microbiology and Cell Science, University of Florida, Gainesville, Florida 32611,[4] Department of Fisheries and Wildlife and Crop and Soil Sciences, 13 Natural Resources Building, Michigan State University, East Lansing, Michigan 48824[5]
Received 27 September 2004/ Accepted 20 December 2004
The validity of using indicator organisms (total and fecal coliforms, enterococci, *Clostridium perfringens*, and F-specific coliphages) to predict the presence or absence of pathogens (infectious enteric viruses, *Cryptosporidium*, and *Giardia*) was tested at six wastewater reclamation facilities. Multiple samplings conducted at each facility over a 1-year period. Larger sample volumes for indicators (0.2 to 0.4 liters) and pathogens (30 to 100 liters) resulted in more sensitive detection limits than are typical of routine monitoring. Microorganisms were detected in disinfected effluent samples at the following frequencies: total coliforms, 63%; fecal coliforms, 27%; enterococci, 27%; *C. perfringens*, 61%; F-specific coliphages, 40%; and enteric viruses, 31%. *Cryptosporidium* oocysts and *Giardia* cysts were detected in 70% and 80%, respectively, of reclaimed water samples. Viable *Cryptosporidium*, based on cell culture infectivity assays, was detected in 20% of the reclaimed water samples. **No strong correlation was found for any indicator-pathogen combination. When data for all indicators were tested using discriminant analysis,** the presence/absence patterns for *Giardia* cysts, *Cryptosporidium* oocysts, infectious *Cryptosporidium*, and infectious enteric viruses were predicted for over 71% of disinfected effluents. **The failure of measurements of single indicator organism to correlate with pathogens suggests that public health is not adequately protected** by simple monitoring schemes based on detection of a single indicator, particularly at the detection limits routinely employed. Monitoring a suite of indicator

organisms in reclaimed effluent is more likely to be predictive of the presence of certain pathogens, and a need for additional pathogen monitoring in reclaimed water in order to protect public health is suggested by this study. (end of abstract)

Michael

On May 9, 2012, at 4:00 PM, Jay Simi wrote:

Attached are the meeting minutes from the May 8th meeting of the Central Valley Drinking Water Policy Workgroup. Included in the meeting minutes is a list of members of the workgroup who have offered to revise particular sections of the draft Staff Report. Please submit all comments and edits to the draft Staff Report by Tuesday, May 22nd. Water Board staff will distribute a revised draft staff report to the Workgroup prior to the next meeting on June 5th.

6. A key reason for USEPA to withdraw the NPDES delegation is the failure of the Central Valley board to provide for public involvement, public enablement, public training, and public meetings in the NPDES process. This basin plan amendment suffers from the same problem. There is no known effort to inform and involve the public meaningfully in this discharger process. The e-mail list above demonstrates the absence of NGO and other public participation in the process of this process basin amendment. The State Board must correct this process, and should do so as part of its action on this item.

Many years of work and innumerable person hours went into this proposal. Nonetheless, the great limitations of this amendment must be made explicit and it must not be allowed to delay quickly moving to remedy its weaknesses.

The comments in this communication have been made at Workgroup meetings and in e-mail form as noted, to the regional board staff listed in the e-mail. Friends also raised and raises CEQA concerns because unregulated contaminants could have a significant impact of the environment. Regional board staff have responded to our issues at meeting and about CEQA that the scoping aspects of the project were determined at scoping meetings, but these meeting were before Friends became involved and the project has gone of for many years. All of these comments are being made now both the state and regional board well before the State Board will be acting on this item, so there is not prejudice to anyone from raising them at this time and it is in the public interest that they be considered. Those in the 10 years of workgroup meetings are there on salary whereas I and Friends are volunteers.

Sincerely,

Michael Garabedian, President
Friends of the North Fork
7143 Gardenvine Ave.
Citrus Heights CA 95621
916-719-7296