ITEM 17

CITY OF MANTECA AND DUTRA FARMS, INC., MANTECA WASTEWATER QUALITY CONTROL FACILITY, SAN JOAQUIN COUNTY - CONSIDERATION OF NPDES PERMIT RENEWAL (NPDES NO. CA0081558) AND TIME SCHEDULE ORDER

COPY

THURSDAY, OCTOBER 8, 2009

HELD AT

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD
RANCHO CORDOVA, CALIFORNIA

REPORTED BY:
ESTHER F. SCHWARTZ
CSR NO. 1564

CAPITOL REPORTERS (916) 923-5447
CHAIRMAN LONGLEY: Thank you very much for the compliment. Others have told me that Pamela could tell them no, and they are happy.

MR. GOVEA: With that said, we have issues. So most notably is electrical conductivity that Gayleen already covered in her comments in Title 27. I want to spend a little bit of time going over the City's efforts in permit compliance over the last five years.

The City's very proud of the accomplishments that we have made over the last five years. We've spent about $65 million in treatment plant upgrades, most notably facilities to nitrify and denitrify our effluent. As you see here, we've made a nitrate reduction of approximately 80 percent, roughly an average of 27 milligrams per liter down to 4 milligrams per liter. We have installed tertiary filters, which have, among other things, reduced metal concentrations from -- the example I've got here is for copper, a 75 percent reduction from 14 down to 3 micrograms per liter.

The filters also provide a last line of defense for us. So we feel very confident in our ability to comply with the permit. We are very proud of the performance.
In addition, we have installed ultraviolet light, UV disinfection, that eliminated or changed our process of disinfection from chlorine to UV, and we've eliminated the cancer causing byproducts created by chlorine disinfection. These byproducts have been nondetect in our system since the UV system has been on line in September of '07.

We have also made improvements to the treatment plant in that we've removed an industrial discharger from the treatment plant. We have taken their industrial wastewater stream out of the plant, routed around, and now that waste stream is directly applied to land. That resulted in improved plant performance, as well as reduction in effluent salinity.

We've also made improvements in our potable water side. We have added surface water to supplement our groundwater supply on the drinking water side. And the result of that is we have reduced a number of constituents. The ones I have outlined here are aluminum, which you can see a reduction from an average of 260 milligrams per liter down to 16 milligrams per liter, a reduction of 90 percent. Most notably with electrical conductivity we have reduced levels by 30 percent in
our effluent by adding surface water to the potable water side. Prior to the surface water addition, our effluent EC was in the just over a thousand micromhos per centimeter range, and now we are down to close to 700.

There is a lot to look on this stick graph. The orange and the red boxes show average EC concentrations from 2004 to 2009. And you can see in mid 2005 -- prior to 2005, the City was exclusively on groundwater, which was high salinity, and consequently our effluent was high in EC. And right around mid 2005 we started adding surface water into our potable water system, and you can see gradually over time the EC levels dropped. And then roughly in early 2007, the industrial discharger was removed from our system -- that is the industrial discharger named Eckert. They were removed, and there is also further EC reduction there. And then in mid or, say, late 2007 the additional filtration and UV, and then, throughout this period, there is also continuation of adding surface water, increasing the percentage of surface water that we have in our potable water system. You can see the results as we are approaching the 700 limit, but we are not there yet. The 700 limit, of course, is the
one that is proposed in our permit. Whereas, the
green line is the thousand micromhos per centimeter,
which is the one that was just in the limit we had
for EC in our past permit.

The focus of this particular slide is to show
that we made significant reductions in EC over time.
We have also achieved the ratio of surface water to
groundwater that we are hoping to get. So we don't
anticipate any further reduction in EC as we add
surface water. Because as we add more surface, we
will be adding more groundwater as growth occurs.
So the ratio that we see right now in 2009 we don't
expect it to change. We expect this curve, these
scatter of dots to level out, not go any further
below 700.

So with that in mind, this -- we also are
looking at other measures for reducing EC.
Unfortunately, there isn't a smoking gun, an
industrial discharger, left in our system to
regulate, to take more EC out, to achieve the 700
limit. All that is left was the Eckert Industry,
and they are no longer in our system. We are in the
initial stages of looking at water softener
reduction or elimination, but some of our
preliminary analysis doesn't show that that will be
a promising solution.

So we believe that all that is left, really, for us to achieve, consistently achieve, compliance with an EC limit of 700 is to go to advanced treatment microfiltration and reverse osmosis.

I am not going to spend a lot of time on this particular slide because Gayleen covered where we are, where Manteca is with our performance. Really, the bottom line is the last line of this expected compliance for the proposed limit of 700 limit, the seasonal limit. You can see the numbers, where we are. We are close. But as I'll mention here in a minute, yes, we are close, but, as I said, there just doesn't seem to be any other low hanging fruit to pick in order to get us below 700. We picked that fruit already, in that last increment. Even though we are close, yes, but that last increment is going possibly to be to the city. So as said, what we are left with, we believe, is advanced treatment through MF and RO. And we've looked at it, what it would take to achieve compliance with where we are now in our effluent EC. And we are looking at treating about two and half mgd, million gallons per day, of our current discharge in order to obtain a 700 or lower EC concentration. And to do that, we
would need to expend about $33,000,000 in construction costs, with an annual O&M cost of 3.7 million. And what that means to the households in Manteca is essentially double the sewer rates. We are $40 a month now and expect it to double.

The outcome of using MF and RO, ultimately there would be a 5 percent decrease as we are so close. Roughly 735 micromhos per centimeter is what we are averaging right now. To get down to 700 would be a 5 percent decrease. The benefit to the river would a .02 percent reduction or decrease of river EC concentration, and we would be left with the highly concentrated brine product that has its own set of issues with the disposal.

Looking at it, at this issue, another perspective put it in context, the two left bars are Manteca treatment plant is putting out, as I said, about 735 micromhos per centimeter right now. The river concentration is about 594 micromhos per centimeter. The two right most bars, if the plant were to achieve 700 through microfiltration and reverse osmosis, the river would drop from 594.13 to 594.01; a .02 per cent reduction in salinity.

To put this into context even further. If you think about loading in the San Joaquin River, the
amount of EC, salinity, that is there now and put it in terms of height, there is the equivalent of the Empire State Building in terms of loading in the river; and the amount of contribution that the City has is equivalent of a six-foot-six person.

With that with, with the next slide, I am going to turn it over to Tess Dunham. She's going to handle the rest of the presentation.

MS. DUNHAM: Thank you, Phil. Tess Dunham, special counsel to the City. Phil got to say all the good things, and it's my job to tell you why I think what the staff is proposing is not mandated by the State Water Board orders in Tracy and Stockton.

First, I think it is important to note that the State Water Board order for the City of Tracy is really dependent on a couple of -- on two different factors. One of them, their main argument was, well, what we said in 2005 with respect to the City of Manteca does not apply to Tracy because the Manteca order is nonprecedential and, therefore, it has no application to the City of Tracy. Well, let me state the obvious. We are the City of Manteca and, therefore, the 2005 City of Manteca order does apply to us. Even though it may be nonprecedential to other dischargers, it clearly applies to the City.
depends how you want to calculate performance. If it is water quality based, water quality based effluent limit as set forth in the Manteca 2005 order, set at a thousand.

MS. MULHOLLAND: We can change that.

MS. DUNHAM: The staff could use their best professional judgment to determine what would be the appropriate limit.

CHAIRMAN LONGLEY: There is two levels in the Delta, and she is asking that we keep the thousand year-round.

MS. MULHOLLAND: I understand what she is saying.

MS. MAKI: The only reason you have to go to microfiltration or reverse osmosis is because of the EC --

MS. DUNHAM: Yes.

MS. MAKI: -- limitations?

MS. DUNHAM: Yes.

CHAIRMAN LONGLEY: There is the issue, and staff reported to us, why they think we need to go to the 700 part of the year. The other issue, though, I don't know to what extent we are going to get into, not us, but that State Board is going to be delving in the South Delta, the EC limit.
Certainly, the issue of chloride toxicity, in my opinion, is important, and it would change that limit if it were based on chloride, conceivably.

MS. DUNHAM: I don't know.

MS. MAKI: It hasn't done that yet.

CHAIRMAN LONGLEY: No. The issue is, if you go back and look at her slide on timelines, there is not going to be -- this is the EC objectives reassessment. And so it is conceivable, if they go through this, that that value may change. But yet today we are being asked to adopt a particular value they may not be that value at that particular point.

MS. DUNHAM: Our concern being they may change the South Delta objective for the summer months to something the City of Manteca could meet. In the interim, we have to plan accordingly because, even though there is a reopener in our permit, the history of the Bay-Delta Plan is not that something gets adopted and it gets approved and never gets challenged. We know the history of the Bay-Delta Plan is very contentious and very litigious, and we don't know exactly when the South Delta objectives could be effective, if they are, in fact, changed to a level that the City can comply with.
CHAIRMAN LONGLEY: Thank you.

The next, is there any cross-examination?

MS. OKUN: Dr. Longley, do you want me to respond to some of the issues about the Bay-Delta Plan?

CHAIRMAN LONGLEY: Yes. Go ahead.

MS. OKUN: I certainly sympathize with the predicament Manteca finds itself in, but there is really nothing this Board can do about it. The issue of whether the 2006 clarifications to the Bay-Delta Plan was a clarification or a change is obviously being challenged. It's the State Board's plan, and the State Board has issued two precedential orders in the last couple months stating what their interpretation is, which said that it is not -- it is not a change; it is a clarification. That is what the Bay-Delta Plan always meant and that the Board, Regional Board, doesn't have any flexibility not to include numeric effluent limitations based on that plan.

The issue with EPA approval is similar. EPA doesn't have to prove changes unless they are a change to standard, and these are not a change to standard. My understanding is EPA agrees with that in this case.
The issue of whether the Manteca order is precedential as to Manteca, it's not, not because it was designated as precedential or nonprecedential as to other facilities. But it is inconsistent with the two recent State Board orders. Some of the factors still remain the same. I believe the State Board still thinks it is unreasonable to go to RO for limits that may never have to be met. But that is only one of the factors, and they were very clear, notwithstanding those considerations, the permit has to contain effluent limits until we either amend our Basin Plan to provide for site-specific objectives or some sort of the variance program for a TMDL or some other interim measure. I don't see how the interim measures could get accomplished in five years, either. That is something the State Board and Regional Board staffs are working on. If that can be done in five years that is a solution.

The Manteca order also does say that it is not precedential with respect to other proceedings or with respect to actions that may be appropriated at a future time, as to Manteca.

So the Board's hands are really tied. On issue of MMPs, the Board's hands are tied. It is a
statute. There is nothing we can do to change that, except the regulated community may want to approach the Legislature on this issue, but we can't do anything on it.

CHAIRMAN LONGLEY: Thank you for clarification.

Board Members.

MS. MAKI: The issue of the secondary pond being exempt from Title 27. You don't agree with that?

MS. OKUN: I think that it's not clear after the Lodi order. Typically, these kind of discharges had been analyzed under the wastewater exemption of Title 27, and the Lodi order didn't address it directly, but it did very strongly suggest that the agricultural reuse is recycling and, therefore, eligible for that unconditional reuse exemption. There was no discussion in that order about ponds and whether ponds are part of reuse. Title 27 does treat storage and disposal differently. In the sewage exemption there is a specific reference to storage facilities. But there is not in the reuse exemption.

So you can make the argument that the storage ponds are part of reuse, a necessary component of
to the secondary effluent storage bound.

On the EC issue. I just want to point out the State Board has now had two opportunities, with Tracy and Stockton, to make a statement that they rescind the application of the Manteca order to the City of Manteca. That statement has not be made in either of those orders. So I think there is an argument that the Manteca order, as it applies to the City, is still applicable and that it has -- that application has not been changed by the State Board's adoption of the Tracy and Stockton orders.

Thank you.

CHAIRMAN LONGLEY: Thank you.

Closing statement by staff.

MR. LANDAU: Good afternoon. Ken Landau, Assistant Executive Officer. I have taken the oath. Actually, I am going to cover some issues and then ask Diane Messina on the front table to cover a few more.

The Title 27 exemption, as we've said, are a fundamental way of handling those who have changed very greatly in the last few months with the adoption by the State Board of the decision on Lodi. We are giving you our best interpretation of what the State Board said. As pretty much everybody
said, including us, there are open questions as to exactly how you apply this. We are giving our best interpretation. Whichever way you go on some of these things, I expect it will be petitioned to the State Board, and it will be clarified through probably a number of petitions from this Board and other Boards.

What I may tell you six months from now may be different. I do want to point out that some of the exemptions are conditional on compliance with groundwater quality standards. Some are not. In either case, we work to protect groundwater quality. Just because it is unconditional, doesn't mean, hey, it's okay you can discharge anything you want and pollute. We don't care.

We work on preventing groundwater pollution, regardless. A big change that had been noticed, we used to look at the entire facility. So the groundwater monitoring at Manteca and a lot of other sewage treatment plants look at the unit, the facility, as a whole. Is it changing? We have not usually had groundwater monitoring to look at individual basins. So the basin that we are saying we don't have the information to know whether there is a problem, doesn't mean we know there is a
MS. CREEDON: Thank you for that clarification. This is a permit that is going to be petitioned by many parties. So the Board will get their opportunity. I can't tell this Board how much I fought against the Lodi order to the point where it was -- I just couldn't have said more to ask the State Board to reconsider their decision. They made their decision. The only thing that we can do as a Regional Board is salute and do what they say. We are. This is our interpretation of it. So we are doing it this way. I just want to make it really clear all of our orders, regardless of Title 27, always required compliance with wastewater objectives. It is just the process and timing and how we go about it.

And so the Lodi order fundamentally changed, and that was the point I tried to make with State Board, is going to have far-reaching impact on the Central Valley Board and dischargers we regulate. So with that and the salt issue, of course, critical importance to me that we do something to allow some offsets. The State Board has promised that they commit to work with us to try to find some interim solution while we are doing our CV-Salts and developing a management plan. It just seems our
MS. MAKI: How many other permits are going to be affected by this Title 27 decision that --

MS. CREEDON: I forget exactly how many non-15 orders we have. Nearly all of them and most of our NPDES permits.

MS. MAKI: Right.

MS. CREEDON: Perfect.

MS. MAKI: As far as the Title 27 and the permits going to be. You said that this permit is
probably going to go back to the State Board.

MS. CREEDON: I guarantee that this will go back. It will be petitioned. Especially, I would be surprised if the discharger doesn't petition it. And so the State Board will get a chance. I would hope that they would take it up almost immediately so that we can get some resolution to this pretty quickly.

MS. MAKI: I am leaning towards setting the EC limits at 700 and exempting the secondary pond from Title 27. Because it is going to be petitioned, anyway, let's hear what they have to say on it.

CHAIRMAN LONGLEY: I have just a process question for you. The NPDES permit and time schedule order, if we want one motion, doesn't have to be voted on separately, or does it?

MS. OKUN: No, it doesn't have to be voted on separately. If you do want to make a change on the reuse ponds, we'll need ten or fifteen minutes.

CHAIR LONGLEY: We can discuss that.

MR. ODENWELLER: Mr. Chairman.

CHAIRMAN LONGLEY: Yes, sir.

MR. ODENWELLER: Diane, you indicated
adoption of the recommended -- staff recommendation.

Do you want to include the files and the records in
the recommendation as well?

MS. MESSINA: Yes, definitely. In case
Gayleen did not at the end of her presentation, we
want to enter the case files, the agenda package,
the late revisions and Gayleen Perriera's staff
presentation into the record.

CHAIRMAN LONGLEY: Thank you very much.

MS. OKUN: I'm sorry, I think I didn't
understand your first comment, Ms. Maki. Are you
suggesting increasing 700 limit to a thousand?

MS. MAKI: Yes, I'm sorry. Yes. Isn't it
at a thousand now in the permit?

MS. CREEDON: The current permit with the
City, and then it was revised so that it was
seasonal. So it is at a thousand for certain parts
of the year and 700 for the other parts of the year.
You are eliminating the 700.

MS. MAKI: The State Board has not been
very specific as to their -- I mean they are taking
it plant by plant, and then they are comparing
plants that aren't exactly the same, it seems to me.

MS. OKUN: That's not what they're doing.
They've written two very clear precedential orders,
saying in this circumstance this Board has to use
the 700/1000 limits. They're is a potential for
using narrative limits where calculation of numeric
limits is feasible, but we've already calculated
limits based on these numbers. They're feasible to
calculate. Even using narrative limits, the
narrative limits have to achieve the 700/1000.
There is no lack of clarity in what direction the
State Board has given and whether those directions
are precedential.

MS. CREEDON: The State Board clearly
understands the predicament they are putting us in
and our dischargers. The clearly understand that.
But they have a Basin -- just like ours. We have to
comply with our Basin Plan, and they indicated,
their attorneys and the Board has agreed on two
occasions now that there is really no flexibility
here in terms of salinity standards.

MR. ODENWELLER: What would happen if we
put the 700 in and then allowed an interim standard
of 750 which would cover the graph that was
presented?

MS. OKUN: It would violate the State Board
orders.

MR. ODENWELLER: Okay.
MS. OKUN: You could put it in a time schedule, but you can't put it in a permit.

CHAIRMAN LONGLEY: Any further questions before I close the hearing?

MS. MAKI: Lori, do you have any comments on the Title 27 exemption for the secondary pond?

MS. OKUN: Not in addition to the ones I already made.

CHAIRMAN LONGLEY: Any further questions?

MS. MULHOLLAND: One final question. The time schedule cannot go beyond five years, I understood. I am concerned about that.

MS. CREEDON: We can give them. Well, there are some limits with NPDES permits, but we can give them additional time. The MMP will kick in, regardless if we give them more than five years, at the end of five years.

MS. OKUN: In order to avoid MMPs, the time schedule has to be for five years or less. If we say it is going to take 20 years to solve this problem, they don't five years of MMP relief. The statute is very clear the way it is written, and we have to be able to make findings that they will achieve compliance in five years, which is what the order finds.
CHAIRMAN LONGLEY: Any further questions before I close?

Close the hearing for deliberation. I have some real sympathy for the City in their argument on the salinity standard, but I have to fully endorse what Lori and Pamela and the rest of staff are telling us. I, quite frankly, will vote for the order as it is, otherwise I don't think I can support it.

Any further comment?

MS. MAKI: You don't support the idea that the storage pond, the secondary pond, is exempt from Title 27?

CHAIRMAN LONGLEY: I don't think we know that at this point. One way or the other, that really has the minimal impact relative to what the salinity standard has. And I think that we are on much more firm ground by accepting staff recommendation in that respect.

MS. CREEDON: Dr. Longley, that is our interpretation of the Lodi order. I don't want to downplay the importance of the impact that the decision will have.

CHAIRMAN LONGLEY: I was comparing relative to the --
MS. CREEDON: It will have significant impact. If the State Board upholds how we think they -- how we've interpreted their orders, it will have significant impact throughout the Central Valley.

CHAIRMAN LONGLEY: I understand that. For Manteca relative to the salinity issue, which is really the big elephant in the room.

Any other comment?

Do I have a motion?

Hearing none, I will make the motion to adopt the NPDES permit with late revisions and the time schedule order.

Any further discussion?

Then go to voice vote.

MS. MAKI: You have to have a second.

CHAIRMAN LONGLEY: Not in Sturgis.

All in favor, state so by saying aye.

Opposed, say no.

MS. MAKI: No.

CHAIRMAN LONGLEY: Abstentions. Sounds like three of them.

MS. MAKI: Has anybody voted yet?

MS. MULHOLLAND: I guess we better go back for discussion. Obviously I can't abstain for any
good reason other than -- Let me just -- I feel as if I have no choice. The State Board says this is the law. And it's a little bit like, okay, but I think driving 70 miles an hour is fine, and I can't say that because they have said that it is 65 miles an hour, and they don't care the cost or implications. So the only way this comes back to where I go so many times: Where do we say to the State Board we think the implications on this are horrid, we don't think it is a good idea? Is this where we vote against it and say we don't think it is a good idea, or then we are being illegal --

MS. CREEDON: We've already done that. And that is why they were remanded back to us. The Tracy permit, we did our best approach that we thought was legally defensible and allowable by providing them so offset in terms of our compliance with the number. State Board said no. We did that. We have done that. Our hands -- they have told us, "You got it wrong. You do it this way. They understand what their orders mean to us and what it means and the predicament it puts us in. They don't have a choice. Really, this Board doesn't have a choice either.

MS. MULHOLLAND: We don't have a choice?
MS. CREEDON: Not for salts in the Delta.

CHAIRMAN: We can vote otherwise, but higher probability, as I see it, it will be remanded back to us and take more staff time.

MR. ODENWELLER: This is, the package as we presently have it, fully compliant with the instructions that the State Board has given us?

MS. CREEDON: For salts, yes. And we think for Title 27. That one is still an iffy one. If they come back and say, "You got it wrong. This is what we really meant." And if it's opposite of what we're saying, I will be pretty happy. I am not going to disappointed to have that remanded.

MR. ODENWELLER: If we reconsider our vote, I will support it with a statement on my vote that I am simply complying with instructions of the State Board.

CHAIRMAN LONGLEY: Do others want to make the same statement?

MS. MULHOLLAND: Yes.

MS. MERAZ: Yes.

MS. CREEDON: I don't know how we let the State Board know.

MS. OKUN: Is that a motion for reconsideration?
MR. ODENWELLER: They are probably finding out right now.

CHAIRMAN LONGLEY: Yes. Do we have to vote on reconsideration?

MS. OKUN: I don't know.

MS. MAKI: You have a vote out there. You can call for the vote.

CHAIRMAN LONGLEY: I will call for the vote again.

All in favor of the NPDES permit with late revisions and time schedule order presented to us by staff, state so by saying aye.

Opposed, say no.

MS. MAKI: No.

CHAIRMAN LONGLEY: Abstentions.

Motion carries.

MS. CREEDON: Would you like for me to draft a letter for you to the State Board passing along the Manteca order?

CHAIRMAN LONGLEY: I would think there are Members of this Board that would appreciate that letter very much.

MS. CREEDON: I will draft it.

CHAIRMAN LONGLEY: Thank you.

CHAIRMAN LONGLEY: We will take about a
STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2004-0062

ADOPTION OF THE 2004 STAFF REPORT REGARDING PERIODIC REVIEW OF
THE 1995 WATER QUALITY CONTROL PLAN FOR THE SAN FRANCISCO
BAY/SACRAMENTO-SAN JOAQUIN DELTA ESTUARY

WHEREAS:

1. The State Water Resources Control Board (SWRCB) is responsible for the
   regulation of activities and factors that may affect the quality of the waters of the
   State (Wat. Code sections 13000, 13001.)

2. The SWRCB adopted a water quality control plan for the San Francisco
   Bay/Sacramento-San Joaquin Delta Estuary (1995 Plan) in resolution 95-24. The
   1995 Plan was adopted by the SWRCB to establish water quality control
   measures that contribute to the protection of beneficial uses in the San Francisco
   Bay/Sacramento-San Joaquin Delta Estuary.

3. The California Water Code and the federal Clean Water Act require, respectively,
   a periodic and a triennial review of water quality objectives or standards under
   Water Code sections 13170 and 13240 and under section 303(c)(1) of the federal
   Clean Water Act (33 USC § 1313(c)(1)).

4. The SWRCB began this review of the 1995 Plan by issuing a notice of public
   workshop on December 10, 2003, for a workshop that the SWRCB held on

5. The SWRCB received comments from interested parties during, and immediately
   after, the January 8, 2004 workshop.

6. The SWRCB staff have prepared a Staff Report addressing the issues noted in the
   comments.

7. Based on review of the comments, as well as analysis of the issues, the Staff
   Report recommends that the SWRCB receive further information to help it decide
   whether to amend the following parts of the 1995 Plan:

   a. Delta Outflow objectives
   b. River Flow objectives: Sacramento River at Rio Vista
   c. River Flow objectives: San Joaquin River at Airport Way Bridge,
      Vernalis: February-April 14 and May 16-June
   d. Export limit objectives
   e. San Joaquin River at Airport Way Bridge, Vernalis: 31 day Pulse
      Flow objectives for April 15 – May 15
   f. Southern Delta Electrical Conductivity objectives

EXHIBIT E
g. Chloride Objectives, Compliance Location at Contra Costa Canal at Pumping Plant #1, and Potential New Objectives

h. Salmon protection objective

i. Delta cross channel gates closure objective

j. The water quality compliance and baseline monitoring program

k. Other parts of the Program of Implementation

8. In addition to recommending consideration of changes in the above parts of the 1995 Plan, the Staff Report recommends that the Program of Implementation section of the 1995 Plan be amended as necessary to address implementation of any new or revised objectives that may be adopted in any plan amendment or revised Plan.

9. The Staff Report recommends that the following matters should not be considered for changes or new objectives at this time:

   a. Dissolved oxygen objectives
   b. Other issues not related to the setting of water quality objectives in the Bay or Delta.
   c. San Joaquin River electrical conductivity upstream of Vernalis
   d. Water level objectives
   e. Western Suisun Marsh salinity objectives
   f. Year round flow objectives on the San Joaquin River

10. The Staff Report includes a plan of work that recommends that the SWRCB proceed immediately to conduct informational workshops to receive detailed technical information on the matters that the Staff Report recommends be considered for changes.

11. Based on the information received during the periodic review and the additional information to be received during future workshops addressing the issues listed in paragraph 6 above, the SWRCB staff will recommend any needed amendments and will prepare draft plan amendments or a draft revised plan for consideration by the SWRCB, and any required environmental documentation. At that time interested parties will have the opportunity, at a public hearing, to comment on staff’s recommendations and on the environmental analysis. After the hearing, the SWRCB staff will prepare responses to comments. Subsequently, the SWRCB will hold a Board meeting to consider adopting any proposed changes.

THEREFORE, BE IT RESOLVED:

1. That the SWRCB adopts the Staff Report regarding periodic review of the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento – San Joaquin Delta Estuary and authorizes the Executive Director to transmit the Report to the U.S. Environmental Protection Agency (USEPA), Region 9, in compliance with section 303(c)(1) of the federal Clean Water Act.
WHEREAS:

1. The State Water Resources Control Board (State Water Board) is responsible for the regulation of activities and factors that may affect the quality of the waters of the state. (Wat. Code, §§ 13000, 13001.)


3. The State Water Board commenced this proceeding on September 29, 2006 by issuing a notice of public hearing for Consideration of an Amended Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, to commence on November 13, 2006. The draft amended Bay-Delta Plan and accompanying appendices, including environmental documentation, accompanied the Notice of Public Hearing.

4. Prior to commencing this proceeding, the State Water Board conducted a series of workshops in 2004 and 2005 to receive information on specific topics addressed in the Bay-Delta Plan. The State Water Board sent notice of all workshops to all parties who indicated an interest in receiving notice.

5. The amended Bay-Delta Plan consists of four volumes, including the Plan, Appendix 1 (Plan Amendment Report), Appendix 2 (Referenced Documents), and Appendix 3 (Response to Comments).

6. The amended Bay-Delta Plan was prepared under a program certified at California Code of Regulations, title 14, section 15251(g) as meeting the requirements of Public Resources Code section 21080.5. Accordingly, the amended Bay-Delta Plan with its appendices constitutes adequate environmental analysis to satisfy the requirements of the California Environmental Quality Act (CEQA) at Public Resources Code section 21000, et seq.

7. The State Water Board has considered all of the oral and written comments that were submitted and, in accordance with the State Water Board’s regulations (Cal. Code Regs., tit. 23, § 3779), has prepared responses to the comments containing significant environmental points as well as responding to some other comments. The Plan and Appendix 1 of the Plan have been revised in response to the comments received from the interested parties, and Appendix 3 of the Plan has been added to respond to the comments.

8. The Bay-Delta Plan supplements the other water quality control plans that cover the Bay-Delta Estuary. Together they include all necessary elements of water quality control plans in accordance with Water Code sections 13241 and 13242 and federal requirements.
At a public hearing scheduled for 7/8 October 2009, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will consider adoption of a renewed National Pollutant Discharge Elimination System (NPDES) permit and Time Schedule Order (TSO) for the City of Manteca Wastewater Quality Control Facility. A tentative NPDES permit and TSO were issued on 10 August 2009. This document contains Central Valley Water Board staff responses to written comments received from interested persons. Written comments from interested persons were required to be received by the Central Valley Water Board by 10 September 2009 for the tentative Orders in order to be included in the record. Comments were received by the due date from the following parties:

1. City of Manteca (City or Discharger),
2. California Sportfishing Protection Alliance (CSPA), and
3. San Luis & Delta-Mendota Water Authority (Authority) and Westlands Water District (Westlands)

Written comments are summarized below, followed by Central Valley Water Board staff responses.

CITY OF MANTECA COMMENTS

The Discharger submitted a comment letter with “major issues” and an attachment with comments referred to as “technical comments and clarifying changes.” The Discharger’s “major issues” are addressed first followed by the “technical comments and clarifying changes.”

DISCHARGER’S MAJOR ISSUES

DISCHARGER COMMENT #1: The proposed Effluent Limitations for Electrical Conductivity are Inconsistent with the State Water Resources Control Board (State Water Board) Order Governing Manteca’s Discharge.

Response: Staff agrees that Water Quality Order (WQO) 2005-005 (Manteca Order) was controlling for the Manteca facility as of 2005. The Discharger states that it has already taken steps to reduce salinity to meet its current effluent limitations. The State Water Board agreed in the Manteca Order that reverse osmosis was not a reasonable alternative to reduce the Discharger’s salinity levels.
However, some of the factors supporting the State Water Board's conclusions have changed since adoption of the Manteca Order in 2005.

First, the 2005 Manteca Order relied on the fact that the effective date for the south Delta salinity objectives had repeatedly been postponed, and the objectives had not yet taken effect and were under review. At that time, the Bureau of Reclamation and Department of Water Resources were not yet required to meet the objectives, so it was unknown whether additional assimilative capacity would become available through actions by those agencies. The State Water Board updated the Bay-Delta Plan in 2006. The 2006 Bay Delta Plan confirmed the 700/1000 \( \mu \text{mhos/cm} \) objectives, and added provisions to the Implementation Plan clarifying the applicability of those objectives to POTWs and clarifying that the objectives apply throughout the southern Delta. Although the State Water Board is still actively reviewing the objectives, and has been doing so since 2005, the recent State Water Board Order WQ 2009-0003 for the City of Tracy (Tracy Order) concludes that the Clean Water Act requires compliance with existing Bay Delta Plan water quality objectives for the south Delta pending the development of long-term or interim regulatory solutions such as revisions to existing water quality standards, a Total Maximum Daily Load (TMDL), variances, site specific objectives, or an offset policy (Tracy Order, p. 10 and p. 17).

Second, the Manteca Order stated that “although discharge of treated wastewater to the Delta or its tributaries under an NPDES permit can affect EC in the southern Delta, previous State Board decisions and water quality control plans do not discuss treated effluent discharges as a source of salinity in the southern Delta. Similarly, previously adopted implementation programs for complying with the EC objectives in the southern Delta have focused primarily on providing increased flows and reducing the quantity of salts delivered to the Delta and its tributaries by irrigation return flows and groundwater.” (Manteca Order, p. 10.) The Tracy Order and the 2006 Bay Delta Plan supersede these conclusions. Although the State Water Board apparently still does not believe that reverse osmosis is a reasonable approach to wastewater treatment, the Tracy Order clearly requires compliance with the Bay Delta Plan's objectives unless the Water Boards allow another compliance alternative through a basin planning action.

Third, the Manteca Order concludes, “Without prejudging the question of possible revisions to the southern Delta EC water quality objectives, or the question of the possible conditions that may eventually be imposed on the City's permit or other permits in order to comply with water quality objectives for EC in the San Joaquin River and southern Delta, the State Board concludes that establishing an effluent limitation in the City's permit of 700 \( \mu \text{mhos/cm} \) EC for April through August at this time is not supported by the record.... Our conclusion is based on the unique background and facts in this case, and this order shall not be regarded as precedential with respect to other proceedings or with respect to
actions that may be appropriate at a future time.” (Manteca Order, pp. 14-15 [emphasis added; footnote omitted].)

Therefore, considering the 2006 Bay Delta Plan and the Tracy Order issued by the State Water Board¹, water quality-based effluent limitations for electrical conductivity have been included in the proposed NPDES Permit based on the Bay-Delta Plan.

**DISCHARGER COMMENT #2**: The City's Ponds and Land Application Activities are exempt from Title 27.

Response: The Discharger contends that the Secondary Effluent Equalization Pond (SEEP) is unconditionally exempt from Title 27 pursuant to Section 20090(a) (sewage exemption), because it is a necessary part of the Facility's wastewater treatment system. The SEEP is used only to store secondary-treated effluent prior to tertiary treatment, and is therefore part of the Facility's treatment train. Central Valley Water Board staff agrees and has modified the findings in the proposed NPDES Permit.

The Discharger contends that the Food Processing Wastewater Pond is exempt from Title 27 pursuant to Section 20090(h) (reuse exemption). The City of Lodi Order does not address ponds that store fully treated effluent that will be used for recycling. The City of Lodi Order suggests that the use of recycled water is exempt under the reuse exemption. The reuse exemption (unlike the unconditional sewage exemption) does not include "... storage facilities associated with" reuse. The reuse exemption only covers "recycling or other use of materials ..." Therefore, the Food Processing Wastewater Pond is not "recycling." However, whether or not the reuse exemption applies, the Food Processing Wastewater Pond is exempt from Title 27 under both the conditional sewage exemption and the wastewater exemption.

Discharges to the Food Processing Wastewater Pond do not go through the treatment plant and therefore do not qualify for the unconditional sewage exemption because they are not “associated with” the treatment facility. However, the food processing wastewater is pretreated by screening, DAF system, and pH neutralization before discharging to the Facility. Therefore, the Food Processing Wastewater Pond may be exempt from Title 27 either under the conditional sewage exemption, which applies to “treated effluent”, or under the wastewater exemption of section 20090(b). The Food Processing Wastewater Pond is lined; therefore, considering the characteristics of the wastes in the pond and the fact that it is lined, the waste will not discharge from the pond in

---

quantities that could cause or contribute to groundwater degradation or the exceedence of groundwater objectives. The operation of the pond meets the requirements of the Basin Plan. Therefore, the Food Processing Wastewater Pond meets all preconditions of the Title 27 sewage exemption for treated effluent, and the Title 27 wastewater exemption.

The Discharger also contends that the Secondary Effluent Storage Pond (SESP) is exempt from Title 27 pursuant to Section 20090(h) (reuse exemption). Central Valley Water Board staff disagrees. Although the pond is used in the reuse operation, discharges to the pond constitute storage of fully treated effluent subject to the conditional sewage exemption. One of the preconditions of this exemption is that the discharge must be in compliance with the Basin Plan. The SESP, however, is unlined. Therefore, considering that secondary effluent exceeds water quality objectives for some constituents (e.g., salinity), the Discharger has not demonstrated that all preconditions have been met and has not added findings that the SESP is exempt from Title 27. The proposed NPDES Permit includes groundwater limitations. If the Discharger can demonstrate that the SESP is not causing violations of the applicable water quality objectives, the Central Valley Water Board can find in a future permit amendment or renewal that the SESP is exempt from Title 27 based on the sewage exemption. A five year compliance schedule is provided in the proposed NPDES Permit for compliance with the groundwater limitations and to allow additional information to be submitted to the Board for a determination regarding Title 27 exemption for the SESP.

The Discharger also contends that the application of the treated wastewater on the Land Application Area for irrigation purposes is considered reuse and should be exempt from Title 27 pursuant to Section 20090(h) (reuse exemption). Central Valley Water Board staff agrees and have modified the proposed NPDES Permit accordingly.

**DISCHARGER COMMENT #3**: The Groundwater Limitation for Total Ammonia is an Improper Interpretation and Application of the Basin Plan’s Narrative Taste and Odor Objective. According to the Tentative NPDES Permit, the ammonia groundwater limitation is based on a study contained in the Journal of Applied Toxicology by Amoore and Hautala.

**Response**: The Amoore and Hautala study cites concentrations in water that are associated with threshold air odor concentrations, calculated via equilibrium partitioning. They represent thresholds in water that could cause water to smell bad. The Discharger has not provided a better, more direct criterion that can be used to apply the Basin Plan’s narrative objective. In the absence of other information, this reference provides a criterion that implements the narrative objective.
The Policy for Application of Water Quality Objectives states, in part:

"To evaluate compliance with the narrative water quality objectives, the Regional Water Board considers, on a case-by-case basis, direct evidence of beneficial use impacts, all material and relevant information submitted by the discharger and other interested parties, and relevant numerical criteria and guidelines developed and/or published by other agencies and organizations (e.g., State Water Board, California Department of Health Services, California Office of Environmental Health Hazard Assessment, California Department of Toxic Substances Control, University of California Cooperative Extension, California Department of Fish and Game, USEPA, U.S. Food and Drug Administration, National Academy of Sciences, U.S. Fish and Wildlife Service, Food and Agricultural Organization of the United Nations). In considering such criteria, the Board evaluates whether the specific numerical criteria, which are available through these sources and through other information supplied to the Board, are relevant and appropriate to the situation at hand and, therefore, should be used in determining compliance with the narrative objective. For example, compliance with the narrative objective for taste and odor may be evaluated by comparing concentrations of pollutants in water with numerical taste and odor thresholds that have been published by other agencies. This technique provides relevant numerical limits for constituents and parameters which lack numerical water quality objectives." (emphasis added)

The 1.5 mg/L limit is a calculated odor threshold in water. It is therefore relevant and appropriate for determining compliance with the narrative tastes and odors objectives, which state for groundwater:

"Ground waters shall not contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses."

**DISCHARGER COMMENT #4:** The Monitoring Frequencies for Chronic Whole Effluent Toxicity (WET) Investigation Should Be Reduced.

**Response:** The Discharger requests that the accelerated monitoring requirements for chronic whole effluent toxicity (Special Provisions VI.C.2.a.iii.) be reduced to three monthly samples. Central Valley Water Board staff disagrees. The accelerated monitoring requirements specified in the proposed NPDES Permit are based on USEPA guidance from the *Technical Support Document for Water Quality-based Toxics Control*, EPA/505/2-90-001, March 1991 (TSD). In the Fact Sheet, page F-77, the following rationale is provided for the accelerated monitoring frequency:

"The provision requires accelerated monitoring consisting of four chronic toxicity tests in a six-week period (i.e., one test every two weeks) using the species that exhibited toxicity. Guidance regarding accelerated monitoring..."
and TRE initiation is provided in the Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, March 1991 (TSD). The TSD at page 118 states, 'EPA recommends if toxicity is repeatedly or periodically present at levels above effluent limits more than 20 percent of the time, a TRE should be required'. Therefore, four accelerated monitoring tests are required in this provision. If no toxicity is demonstrated in the four accelerated tests, then it demonstrates that toxicity is not present at levels above the monitoring trigger more than 20 percent of the time (only 1 of 5 tests are toxic, including the initial test).

Based on the guidance in the TSD, the accelerated monitoring requirements in the proposed NPDES Permit are appropriate and necessary. The Discharger’s suggestion of three monthly WET tests is not adequate.

The Discharger also suggests that the Numeric Toxicity Monitoring Trigger (specified in Special Provisions VI.C.2.a.ii.) be increased from 1 chronic toxicity unit (TUC) to 2 TUC. Central Valley Water Board staff disagrees. The basis for the Discharger’s comment is that there must be a certain level of toxicity in order to conduct a successful toxicity identification evaluation (TIE). Central Valley Water Board staff agrees that a certain level of toxicity must be present to successfully identify a toxicant in a TIE. However, this is not the purpose of the Numeric Toxicity Monitoring Trigger. The trigger and the accelerated monitoring requirements, discussed above, are used to determine if the discharge exhibits a pattern of toxicity. If the discharge exhibits a pattern of toxicity exceeding the Numeric Toxicity Monitoring Trigger, a toxicity reduction evaluation (TRE) must be initiated. The TRE is conducted in accordance with the Discharger’s TRE Workplan, which includes the process to remove/reduce the toxicity of the discharge. A TIE is only one step in the TRE process. The toxicity threshold for initiating a TIE is where the Discharger has discretion to implement the appropriate level of toxicity to conduct a successful TIE. This level of toxicity should be established in the TRE Workplan and may vary depending on the nature of the toxicity.

Finally, the Discharger requests that laboratory control water be used as the dilution water rather than the receiving water. Central Valley Water Board staff agrees and has made the proposed changes to the agenda version of the permit.

**DISCHARGER COMMENT #5:** Bioaccumulation Equivalence Factors (BEFs) should be added to the Congener Toxicity Calculation for Dioxin and Furans.

**Response:** Section 3 of the SIP requires all major POTWs to sample the effluent for dioxin and its congeners once during dry weather and once during wet weather. The SIP requires that each congener be multiplied by the Toxic Equivalency Factor (TEF) listed in Table 4 of the SIP and reported to the regional board. The Discharger conducted the dioxin sampling, but failed to provide data.
for the congeners using the TEFs. Therefore, the Discharger must comply with the SIP and submit this data as required in the proposed NPDES Permit. No changes to the tentative NPDES Permit are proposed, but the Discharger may also report the data using the BEF calculation.

TECHNICAL COMMENTS AND CLARIFYING CHANGES

DISCHARGER COMMENT #6: The Discharger suggests additional language be added to Finding II.C. to indicate that certain provisions and requirements in the proposed NPDES Permit only implement State law.

Response: The requested change is unnecessary. Finding II.S. (pg. 11) addresses the Discharger’s comment regarding provisions that only implement State law. Finding S. states the following:

"S. Provisions and Requirements Implementing State Law. The provisions/requirements in sections IV.B, IV.C, V.B, and VI.C.4.a of this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations."

DISCHARGER COMMENT #7: The Discharger comments that Prohibition III.D. should be removed, because it is a duplicative requirement regarding the collection system in Special Provisions VI.C.5.f.

Response: Central Valley Water Board staff disagrees. Prohibition III.D. is not intended entirely for the proper operation of the collection system. The purpose of Prohibition III.D. is to also ensure pollutant free wastewater does not enter the wastewater treatment system that could diminish the system’s capability to comply with the proposed NPDES Permit. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants. The inflow and infiltration of rainfall and groundwater is a collection system maintenance issue. However, the other pollutant-free wastewaters, such as cooling waters and condensates, are not a maintenance issue.

DISCHARGER COMMENT #8: The Discharger requests additional language be added to the Reclamation Specifications in the proposed NPDES permit that allows the Executive Officer to authorize additional water reclamation users.

Response: The proposed NPDES Permit allows reclaimed water use for construction dust control and irrigation in its land application area. The
Discharger has requested language be added to the proposed NPDES Permit that allows the Executive Officer to authorize new water reclamation users. The proposed NPDES Permit only allows specific water reclamation uses based on the Discharger’s report of waste discharge. To allow new water reclamation users, the Discharger must submit a report of waste discharge requesting the addition of reclaimed water users and the permit must be amended by the Central Valley Water Board. To allow the changes that the Discharger has requested, the Central Valley Water Board must adopt Master Reclamation Waste Discharge Requirements in accordance with CWC Section 13523. If the proposed water reclamation is for landscape irrigation, the Discharger should apply for coverage under the State Water Board’s Statewide General Permit for Landscape Irrigation Uses of Municipal Recycled Water.

DISCHARGER COMMENT #9: The Discharger has requested that the proposed NPDES Permit specify the specific groundwater monitoring wells where the groundwater limitations apply and specify the time period for seasonal average reclamation specifications.

Response: Central Valley Water Board staff disagrees. The groundwater limitations apply to the groundwater downgradient of any treatment or disposal unit that may release wastes to groundwater. The Discharger currently has a groundwater monitoring well network that is used to determine compliance with these groundwater limitations. However, the groundwater monitoring network may change in the future. Therefore, it is not practical or necessary to specify the groundwater monitoring wells where the groundwater limitations apply. The Discharger also requests that the background/upgradient well be specified in the groundwater limitations. For the same reasons discussed above, this is not necessary.

The Discharger also comments that Table 11, titled Interim Reclamation Discharge Specifications, includes a footnote #1 on the column titled “Seasonal Average”, but the table does not include a footnote #1 below the table. The Discharger suggests that the footnote should indicate that the interim seasonal average reclamation specifications are to be determined based on data from 1 May through 30 November. Central Valley Water Board staff agrees and have modified the proposed NPDES permit accordingly.

DISCHARGER COMMENT #10: The Discharger requests the deletion of two provisions included in the Standard Provisions (Sections VI.A.2.i.(iii) and VI.A.2.o.).

Response: The Discharger has requested two changes to the State Standard Provisions. The proposed changes are not appropriate. The Standard Provisions in the Central Valley Water Board’s NPDES permits apply to all
surface water discharges. Therefore, the standard provisions in the proposed NPDES permit have not been modified.

DISCHARGER COMMENT #11: The Discharger operates an Industrial Pipeline System (IPS) that currently is used by only one industrial user, Eckert Cold Storage. The Discharger has requested a provision to be allowed to the proposed NPDES Permit that allows the Executive Officer to authorize new or substitute dischargers to the IPS.

Response: The proposed permit does not prohibit new or substitute industrial users for the IPS. The proposed permit does not regulate the local connections into the collections system. No change is necessary.

DISCHARGER COMMENT #12: The Discharger has requested additional clarifications to the discussion of hardness and the analysis of metals with hardness-dependent CTR criteria in the Fact Sheet (Section IV.C.2.c., pages F-19 through F-27).

Response: Central Valley Water Board staff agrees with the suggested language changes and the addition of Table F-9 as proposed by the Discharger. The agenda version of the permit has been updated accordingly. The changes add additional clarification in the Fact Sheet. The clarification has no effect on permit conditions or requirements.

DISCHARGER COMMENT #13: The Discharger has requested several minor editorial corrections.

Response: Per the Discharger request, the appropriate corrections have been made to the proposed NPDES Permit.

CSPA COMMENTS, 9 September 2009

CSPA COMMENT #1: The Proposed Permit allows for an expansion of the Facility and an increase in the regulated flow from the currently permitted 9.87 million gallons per day (mgd) to 17.5 mgd, and therefore fails to comply with federal regulations at 40 CFR 122.4(i) that states "when a new [or expanded] source seeks to obtain a permit for a discharge of pollutants to a stream segment already exceeding its water quality standards for that pollutant, no permit may be issued." The southern portion of the Sacramento-San Joaquin Delta (Delta) Waterways is listed as a Water Quality Limited Segment, in part, for electrical conductivity. Because the Central Valley Water Board has not identified all dischargers of salinity to the Delta and has not issued compliance schedules for attainment of the salinity water quality objective, the Board may not allow the increase in regulated flow for this Facility.
Response: The cited provision only applies if a TMDL has been adopted for the impaired waterbody. CSPA does not cite the complete regulatory provision, which only applies to a "new source or new discharger," and only applies when "the State or interstate agency has performed a pollutants load allocation for the pollutant to be discharged", i.e., when a TMDL is in place. The Water Boards and EPA have not yet adopted a salinity TMDL for the San Joaquin River downstream of Vernalis (including Manteca). Even if it had, the provision applies only to "new sources" and "new dischargers." Manteca is neither, despite its increased flow. (See, 40 CFR § 122.2.) Friends of Pinto Creek v. EPA (9th Cir. 2007) 504 F.3d 1007 involved a new discharger, not an existing discharger with an increase in flow.

CSPA COMMENT #2: The proposed Permit fails to adequately regulate the discharge of minimally treated industrial (food processing) wastes and discharges to agricultural fields in accordance with California Code of Regulations (CCR) Title 27.

Response: See Response to Discharger Comment NO. 2.

CSPA comments that a time schedule is inappropriate to allow the Discharger to provide additional evidence to support a Title 27 exemption finding, and that immediate compliance is the only option. Staff disagrees. The City of Lodi Order specifically allowed a compliance time schedule in this situation, and does not require compliance with Title 27 in the interim. (Order WQ 2009-0005, pp. 20-21.) By definition, a time schedule provides a period of time during which a discharger does not yet meet applicable requirements. However, staff has clarified the draft order findings to remove the reference to a “temporary exemption.”

CSPA COMMENT #3: The proposed Permit includes Utraviolet (UV) Disinfection System Operating Requirements for the newly installed disinfection system but fails to recognize that UV disinfection could result in an increased concentration of pollutants in the discharge; the waste characterization is considered incomplete.

Response: The Facility has undergone a significant upgrade, including nitrification/denitrification, Title 22-level tertiary filtration, and UV disinfection. Therefore, for constituents in which sufficient data is available, Central Valley Water Board staff based the reasonable potential analysis (RPA) on effluent data collected after the Facility upgrades. There was sufficient effluent data for inorganic constituents and conventional pollutants after completion of the Facility upgrades. However, for the majority of priority pollutants there was only one effluent data point after the Facility upgrades. One sample is not sufficient to conduct the RPA; therefore, effluent data collected prior to the Facility upgrades was used for these constituents. CSPA comments that since chlorine can oxidize pollutants, the change to UV disinfection could result in higher constituent concentrations and states that a constituent study should be performed.
immediately. Central Valley Water Board staff disagrees that a constituent study is needed immediately. One sample of the effluent has been collected since the upgrades and did not show elevated concentrations. In fact, since the Facility upgrades also included Title 22-level tertiary filtration, most constituent concentrations have most likely been reduced. The proposed NPDES Permit requires a constituent study during the third year of the permit term for all priority pollutants and other constituents of concern. This is sufficient to further characterize the Facility effluent.

CSPA COMMENT #4: The proposed Permit moves Effluent Limitations for turbidity to a Special Provisions Section in an attempt to avoid mandatory minimum penalties as required by California Water Code (CWC) 13385.

Response: The details regarding how mandatory minimum penalties are to be implemented for permit requirements are an enforcement issue and need not be addressed in the permit provisions or requirements.

CSPA COMMENT #5: The proposed Permit contains language defining average dry weather flow that is ripe for misinterpretation.

Response: No change needed. The flow effluent limitations are for the average dry weather flow. The compliance determination language clarifies that compliance should be determined during periods that would best represent the average dry weather flow for the facility.

CSPA COMMENT #6: The proposed Permit establishes Effluent Limitations for metals based on the hardness of the effluent as opposed to the ambient upstream receiving water hardness as required by Federal Regulations, the California Toxics Rule (CTR, 40 CFR 131.389(c)(4)).

Response: Central Valley Water Board Staff disagrees. As explained in detail in the Fact Sheet (pages F-19 through F-27) the reasonable worst-case ambient hardness was used to calculate the CTR hardness dependent metals criteria. The downstream ambient hardness is appropriate and allowed by the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) and CTR.

The criteria for hardness-dependent metals must be based on the reasonable worst-case ambient hardness in accordance with the SIP\textsuperscript{2}, the CTR\textsuperscript{3} and State

\textsuperscript{2} The SIP does not address how to determine the hardness for application to the equations for the protection of aquatic life when using hardness-dependent metals criteria. It simply states, in Section 1.2, that the criteria shall be properly adjusted for hardness using the hardness of the receiving water.
Water Board Order No. WQO 2008-0008 (Davis Order). The SIP and the CTR require the use of “receiving water” or “actual ambient” hardness, respectively, to determine effluent limitations for these metals. (SIP, § 1.2; 40 CFR § 131.38(c)(4), Table 4, note 4.) The CTR does not define whether the term “ambient,” as applied in the regulations, necessarily requires the consideration of upstream as opposed to downstream hardness conditions. Therefore, the State Water Board concluded that where reliable, representative data are available, the hardness value for calculating criteria can be the downstream receiving water hardness, after mixing with the effluent (Davis Order, p. 11).

In the Davis Order, the State Water Board points out that the requirements for selecting the appropriate hardness for calculating the CTR metals criteria is conflicting in the CTR and the SIP. The CTR requires that the hardness values used must be consistent with the design discharge conditions for design flows and mixing zones (e.g., 1Q10 and 7Q10 receiving water low flows). Whereas, the SIP’s steady-state method requires the selection of critical or worst-case parameters. These can be in conflict for hardness, because often in receiving waters the critical worst-case hardness conditions do not coincide with the design low flow conditions. The lowest hardness conditions typically occur during high river flows, due to the low hardness in surface runoff from precipitation or snowmelt. The State Water Board concludes that, “Thus, the regional water boards have considerable discretion in the selection of hardness. Regardless of which method is used for determining hardness, the selection must be protective of water quality criteria, given the flow conditions under which the particular hardness exists.” (Id., p.10.).

In the proposed NPDES Permit, the reasonable worst-case estimated downstream ambient hardness was used for calculating the CTR criteria. As shown in Tables F-5 through F-8, the calculated CTR criteria are protective under all discharge and flow conditions assuming worst-case conditions for upstream ambient hardness and metals concentrations.

CSPA comments that since a lower effluent limit would be required using the minimum observed upstream ambient hardness to calculate the CTR criteria, that this means a mixing zone and dilution is required. This is not accurate. Although a lower effluent limit can be calculated, dilution is not necessarily needed. A mixing zone is a zone near the point of discharge where criteria are not met. A mixing zone is needed when the effluent exceeds criteria and requires mixing with the receiving water before the criteria are met. As shown in Tables F-5 through F-8 of the Fact Sheet, considering the known conditions and using worst-case assumptions, the effluent does not exceed the criteria and any mixture of

---

3 The CTR requires that, for waters with a hardness of 400 mg/L (as CaCO₃), or less, the actual ambient hardness of the surface water must be used. It further requires that the hardness values used must be consistent with the design discharge conditions for design flows and mixing zones.

4 This has been documented for the San Joaquin River near the Manteca discharge. The lowest receiving water hardness occurs during flood flows when there is massive dilution.
effluent and receiving water does not exceed the criteria. A mixing zone is therefore not necessary in this situation.

CSPA COMMENT #7: The proposed Permit allows for use of a “translator” for copper that are not sufficiently protective of threatened and endangered aquatic species.

Response: As explained in the Fact Sheet, the site-specific metals translators used in the proposed NPDES Permit were developed in accordance with Section 1.4.1 of the SIP. CSPA’s comments are objecting to the provisions of the SIP, not the proposed permit.

CSPA COMMENT #8: The proposed Permit contains an allowance for a mixing zone that does not comply with the requirements of the SIP or the Basin Plan.

Response: Central Valley Water Staff disagrees. The mixing zone in the proposed NPDES Permit for human health criteria fully meets the requirements of the SIP and Basin Plan. As stated in the Fact Sheet (pg. F-30) the human health mixing zone and dilution credit are based on a dilution study, *Dilution Analysis of the Manteca Wastewater Discharge*, Resource Management Associates, October 2006. Therefore, the dilution credit was established using the SIP procedures for an “incompletely-mixed discharge.”

CSPA COMMENT #9: The proposed Permit does not contain enforceable Effluent Limitations for chronic toxicity and therefore does not comply with the Basin Plan, Federal Regulations, at 40 CFR 122.44 (d)(1)(i) and the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP).

Response: Central Valley Water Staff disagrees. The effluent limitation, special provision, and compliance determination requirement for chronic whole effluent toxicity (WET) are in accordance with State Water Board WQO 2003-0012 (Los Coyotes and Long Beach) and WQ 2008-0008 (City of Davis). In these water quality orders, the State Water Board requires the following when a discharge has reasonable potential to cause or contribute to an exceedance of the narrative toxicity objective based on chronic WET testing:

a) a chronic WET narrative limit;

b) chronic WET numeric benchmarks for triggering accelerated monitoring; and

c) rigorous toxicity reduction evaluation/toxicity identification evaluation conditions.
The proposed NPDES Permit contains these requirements and fully complies with the State Water Boards' water quality orders.

CSPA COMMENT #10: The proposed Permit fails to contain an Effluent Limitation for bis(2-ethylhexyl)phthalate despite a clear reasonable potential to exceed waste quality standards in violation of Federal Regulations 40 CFR 122.44.

Response: Out of 12 samples obtained from September 2007 through August 2008, bis (2-ethylhexyl) phthalate (Bis-2) was estimated (J flagged) once in the effluent at 2 µg/L; and out of 17 ambient background monitoring samples obtained from April 2004 through October 2008, Bis-2 was also estimated (J-flagged) once in the receiving water at 2 µg/L. For both of these effluent and receiving water samples, the method detection level was 0.9 µg/L and the reporting level was 5 µg/L. Bis-2 is a common contaminant of sample containers, sampling apparatus, and analytical equipment, and sources of the detected bis (2-ethylhexyl) phthalate may be from plastics used for sampling or analytical equipment. The Discharger did not collect the samples using clean techniques for sampling and analysis to prevent contamination. Considering this information, the Central Valley Water Board staff finds the two estimated data points to be suspect due to questionable quality control/quality assurance practices. Section 1.2 of the SIP states that, “The RWQCB shall have discretion to consider if any data are inappropriate or insufficient for use in implementing this Policy.” Staff is proposing the Central Valley Water Board use its discretion in this matter. The proposed NPDES Permit requires Bis-2 samples taken using clean sampling and analysis procedures and requires monthly effluent monitoring. The proposed NPDES Permit also includes a reopener provision should the water quality data demonstrate that the effluent discharge has reasonable potential, and an effluent limitation is to be added.

CSPA COMMENT #11: The proposed Permit contains an Effluent Limitation for aluminum that is not protective of the beneficial uses of the receiving stream contrary to federal regulations 40 CFR 122.44.

Response: Central Valley Water Board staff disagrees. The Discharger conducted a site-specific water effects ratio (WER) study for aluminum in accordance with USEPA guidance. The WER study determined that a discharger-specific WER of 22.7 can be applied to the chronic criterion for aluminum and be protective of aquatic life. Using a discharger-specific WER is allowed by the SIP in Section 1.1. After applying the chronic WER, the acute criterion is more stringent than the chronic criterion and results in the more stringent water quality-based effluent limitations (WQBELs). The aluminum WQBELs in the proposed NPDES Permit are appropriate and fully protective of aquatic life.
BEFORE THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of City of Manteca for Review of Action and Failure to Act by Central Valley Regional Water Quality Control Board.  

SWRCB/OCC File 
DECLARATION OF PHIL GOVEA IN SUPPORT OF CITY OF MANTECA'S REQUEST FOR STAY

I, Phil Govea, declare as follows:

1. I am the Deputy Director of Public Works - Utility Engineering for the City of Manteca (Manteca). I have held this position for over two years, and have held other responsible engineering positions with Manteca for ten years prior to my current position as Deputy Director. I am a registered civil engineer with over 17 years of professional experience in the design, construction and operation of water and wastewater treatment facilities.

2. To the extent of my duties as Deputy Director, I am responsible for and have direct oversight of all the capital improvements that occur at the City of Manteca Wastewater Quality Control Facility (Manteca WQCF or WQCF).

3. Over the last 12 years, I have personally managed and been responsible for significant modifications to the Manteca WQCF, which have cost Manteca approximately $65 million.
4. I was personally involved in reviewing and preparing the Report of Waste Discharge for the Manteca WQCF submitted to the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) on August 7, 2008.

5. I was personally involved in reviewing and preparing Manteca’s written comments on the tentative Waste Discharge Requirements Order No. R5-2009-0095 (NPDES No. CA0081558) (Permit) and Time Schedule Order No. R5-2009-0096 (TSO) for the WQCF submitted to the Central Valley Water Board on September 10, 2009, and Manteca’s oral comments provided at the Central Valley Water Board hearing on October 8, 2009.

6. I have direct oversight of capital improvement expenditures that occur at and relate to the Manteca WQCF and compliance with the Permit and TSO.

7. I direct and oversee work performed by consultants and Manteca staff for activities directly and indirectly related to compliance with the Permit and TSO.

8. The Permit requires Manteca to comply with final water quality-based effluent limitations of 700 \( \mu \text{mhos/cm} \) for electrical conductivity (EC) immediately. The TSO provides Manteca with a schedule for coming into compliance with the 700 \( \mu \text{mhos/cm} \) effluent limitations for EC by October 1, 2014.

9. Manteca estimates that the cost to comply fully with the final effluent limitations of 700 \( \mu \text{mhos/cm} \) for EC as provided in the Permit and TSO will require a $38.4 million investment for the planning, environmental clearance, design and construction of microfiltration and reverse osmosis (MF/RO) facilities, which results in an annual cost of $3.7 million for the capital improvements, operation and maintenance costs. These costs do not account for the disposal of approximately 0.5 million gallons per day of highly saline brine that the MF/RO process will generate. To pay for the planning, design and construction of new MF/RO facilities, Manteca will have to raise the rates of its service.

10. Manteca has no other certain alternative besides MF/RO to comply with the final effluent limitations of 700 \( \mu \text{mhos/cm} \) for EC.

11. To comply with the Permit and TSO, Manteca must begin to work and spend public funds immediately. This immediate work includes environmental clearance, planning and
pre-designing facilities, submitting a Method of Compliance Workplan/Schedule and submitting a Pollution Prevention Plan within six months of October 8, 2009—the date the Central Valley Water Board adopted the Permit and TSO. The estimated cost of the immediate work in the next two years is $1.6 million for the environmental, planning and pre-design activities. Once expended, these resources are irretrievable.

12. Even then, the time schedule for compliance with the final effluent limitations of 700 μmhos/cm for EC is aggressive and questionable with respect to allowing sufficient time to plan, design and construct the new MF/RO facilities. As explained at the Central Valley Water Board hearing on October 8, 2009, Manteca will have to complete the research and pre-design within one year of the Permit’s and TSO’s adoption, CEQA review within two years, design within three years, and bidding and construction for the MF/RO facilities within five years.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed this 5th day of November 2009.

Phil Govea
PROOF OF SERVICE
(State)

I am employed in the County of Sacramento; my business address is 500 Capitol Mall, Suite 1000, Sacramento, California; I am over the age of 18 years and not a party to the foregoing action.

On November 9, 2009, I served the following document(s):

DECLARATION OF PHIL GOVEA IN SUPPORT OF CITY OF MANTECA’S REQUEST FOR STAY

XXX (by mail) on all parties in said action, in accordance with Code of Civil Procedure §1013a(3), by placing a true copy thereof enclosed in a sealed envelope, with postage fully paid thereon, in the designated area for outgoing mail, addressed as set forth below.

Pamela Creedon, Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114
Phone: (916) 464-3291
Email: pcreedon@waterboard.ca.gov

Phil Govea, P.E.
Deputy Director of Public Works—Utility Engineering
City of Manteca
1001 W. Center Street
Manteca, CA 95337
Phone: (209) 456-8415
Email: pgovea@ci.manteca.ca.us

XXX (by personal delivery) by having a messenger personally deliver a true copy thereof to the person(s) and at the address(es) set forth below:

Elizabeth Miller Jennings, Staff Counsel
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95812
Phone: (916) 341-5161
Fax: (916) 341-5199
Email: BJennings@waterboards.ca.gov

Lori Okun, Sr. Staff Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95812
Phone: (916) 341-5165
Fax: (916) 341-5199
Email: lokun@waterboards.ca.gov

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 9, 2009, at Sacramento, California.

Crystal Rivera
I, Michael D. Bryan, declare as follows:

1. I am a partner/principal scientist with Robertson-Bryan, Inc. and have more than 20 years of combined consulting and research experience in water quality, toxicology and fisheries biology. I hold a Bachelor of Science degree in Biology and Fisheries Biology from the University of Wisconsin – Stevens Point, a Master of Science degree in Fisheries Biology from Iowa State University, and a Doctor of Philosophy degree in Toxicology from Iowa State University.

2. I have personally provided consulting services to various municipalities in the Central Valley to assist in the development of site-specific objectives, and/or amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan).

3. I do not currently, nor have I ever, worked as a consultant directly for the City of Manteca.
4. I was the lead consultant for the City of Vacaville on a project that involved a Basin Plan amendment to revise water quality standards for Old Alamo Creek.

5. I conferred with staff at the State Water Resources Control Board (State Water Board) and Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board), conducted technical studies, analyzed data, and prepared reports and memoranda directly related to the effort to amend the Basin Plan to de-designate the MUN and COLD beneficial uses for Old Alamo Creek.

6. I have direct knowledge that the Basin Plan amendment to de-designate the MUN and COLD beneficial uses from Old Alamo Creek took approximately five years from project initiation to adoption of the amendments by the Central Valley Water Board and their approval by the State Water Board, California Office of Administrative Law (OAL) and United States Environmental Protection Agency (USEPA).

7. I am the lead consultant on a project for the City of Vacaville that involves the evaluation of water quality standards for receiving waters to develop site-specific objectives (SSOs) for New Alamo Creek and Ulatis Creek, and associated Basin Plan amendments.

8. In this ongoing role, I continue to confer with staff at the State Water Board and Central Valley Water Board, conduct technical studies, analyze data, and prepare reports and memoranda directly related to the effort to develop SSOs and for New Alamo Creek and Ulatis Creek, and associated Basin Plan amendments.

9. I have direct knowledge that the Basin Plan amendment to incorporate the SSOs for New Alamo Creek and Ulatis Creek will take approximately eight years from project initiation in March 2003 to adoption of the amendments by the Central Valley Water Board and their approval by the State Water Board, OAL and USEPA.

10. As a sub-consultant to Carollo Engineers, I was the lead technical consultant to the City of Roseville and other wastewater agencies sharing in costs to develop Basin Plan amendments for pH and turbidity.
11. I assisted and worked directly with the City of Roseville and the other wastewater agencies on the Basin Plan amendments for pH and turbidity.

12. I have direct knowledge that the Basin Plan amendment for pH and turbidity took approximately eight years from project initiation to adoption of the amendments by the Central Valley Water Board and their approval by the State Water Board, OAL and USEPA.

13. I was lead technical consultant to the El Dorado Irrigation District to develop an SSOs for pH, turbidity and temperature for Deer Creek, including associated Basin Plan amendments.

14. I have direct knowledge that the Basin Plan amendments to incorporate the SSOs for pH and turbidity into the Basin Plan took approximately five years from project initiation to adoption of the amendments by the Central Valley Water Board and their approval by the State Water Board, OAL and USEPA.

15. I have direct knowledge that the Basin Plan amendment to incorporate the SSO for temperature into the Basin Plan took approximately eight years from project initiation to adoption of the amendment by the Central Valley Water Board and its approval by the State Water Board, OAL and USEPA.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed this 5th day of November 2009.

[Signature]

Michael D. Bryan, Ph.D.
PROOF OF SERVICE
(State)

I am employed in the County of Sacramento; my business address is 500 Capitol Mall, Suite 1000, Sacramento, California; I am over the age of 18 years and not a party to the foregoing action.

On November 9, 2009, I served the following document(s):

DECLARATION OF MICHAEL D. BRYAN, Ph.D. IN SUPPORT OF CITY OF MANTECA’S REQUEST FOR STAY

XXX (by mail) on all parties in said action, in accordance with Code of Civil Procedure §1013a(3), by placing a true copy thereof enclosed in a sealed envelope, with postage fully paid thereon, in the designated area for outgoing mail, addressed as set forth below.

Pamela Creedon, Executive Officer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114
Phone: (916) 464-3291
Email: pcreedon@waterboard.ca.gov

Phil Govea, P.E.
Deputy Director of Public Works—Utility Engineering
City of Manteca
1001 W. Center Street
Manteca, CA 95337
Phone: (209) 456-8415
Email: pgovea@ci.manteca.ca.us

XXX (by personal delivery) by having a messenger personally deliver a true copy thereof to the person(s) and at the address(es) set forth below:

Elizabeth Miller Jennings, Staff Counsel
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95812
Phone: (916) 341-5161
Fax: (916) 341-5199
Email: BJennings@waterboards.ca.gov

Lori Okun, Sr. Staff Counsel
State Water Resources Control Board
1001 I Street, 22nd Floor
Sacramento, CA 95812
Phone: (916) 341-5165
Fax: (916) 341-5199
Email: lokun@waterboards.ca.gov

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 9, 2009, at Sacramento, California.

Crystal Rivera