1. **ROLL CALL**  
President LaHue called the meeting to order at 7:00 p.m. at the Capitola City Council Chambers.

**Board Members Present:**  
Dr. Thomas LaHue, President  
Bruce Daniels, Vice President  
Dr. Bruce Jaffe  
Dr. Don Hoernschemeyer  
Rick Meyer

**Board Members Absent:**  
None

**Staff Members Present:**  
Kim Adamson, General Manager  
Taj Dufour, Engineering Manager/Chief Engineer  
Bob Bosso, District Counsel  
Ron Duncan, Conservation & Customer Service Field (CCSF) Manager  
Michelle Boisen, Financial/Business Services Manager  
Christine Mead, Operations & Maintenance Manager  
Melanie Schumacher, Special Projects Engineer  
Karen Reese, Executive Assistant/Board Clerk

**Others Present:**  
DeepWater Desal, LLC members:  
Dr. Brent Constanz, CEO  
Mr. David Armanasco, Public Relations/Government Affairs Officer  
Mr. Dennis Ing, CFO

City of Santa Cruz representatives:  
Heidi Luckenbach, scwd2 Desalination Program Coordinator  
Melissa Hetrick, Environmental Projects Analyst

Thirty members of the public

2. **CONSENT AGENDA**  
Directors Daniels and Jaffe requested Item 2.2 be removed from the Consent Agenda.

President LaHue requested Item 2.1 be removed from the Consent Agenda.

MOTION: Director Daniels; Second; Director Jaffe: To approve the consent agenda, except items 2.1 and 2.2. Motion passed by unanimous vote.

2.1 Meeting Minutes October 1, 2013  
**Action:** *Removed from Consent; Discussed; Approved.*  
**Discussion:** President LaHue asked for clarification of how items pulled from the consent agenda are handled in the minutes with regard to the vote. On Page 3 of 7, 4th paragraph, it should read “there are currently 3 models of toilets offered”.
MOTION: Director Daniels; Second; Director Jaffe: To approve the minutes with the change as noted. Motion passed by unanimous vote.

2.2 Nov/Dec What’s On Tap Newsletter
*Action: Removed from Consent; Discussed; Approved.*

Discussion: Director Daniels indicated a spelling error. He had questions about the data used to state the District has only achieved half the goal of water savings. Ms. Adamson clarified that there are two different types of consumption data the board sees – monthly production numbers and billing cycle numbers. The numbers used for determining if the goals are met are based on the actual production meters and are for a calendar month. They currently show a 7 ½ % reduction in use. The consumption numbers shown in the Income and Investment report are from the billing system and they are for the meter read period that is mid month to mid month. These two numbers will never reconcile because of the different time periods they measure. Director Daniels requested revised language regarding lawn replacement and shower heads. Director Jaffe recommended a formatting and grammar correction.

Director Daniels asked that staff prepare a graph each month showing consumption numbers from production with comparison to previous years. Ms. Adamson indicated staff would create this report.

MOTION: Director Daniels; Second; President LaHue: To approve the What’s On Tap newsletter with changes as noted. Motion passed by unanimous vote.

2.3 Income and Investment Report for August
*Action: Approved*

2.4 SAS 114 Letter, Information Only
*Action: Approved*

End Consent Agenda

3. REPORT OF PAYMENT OF THE BILLS

3.1 September Warrants and August/September Credit Card Analysis

Director Daniels asked for clarification regarding payment for the Polo Grounds and the Scotts Valley intertie. Mr. Dufour noted these were for work completed last year.

MOTION: Director Hoernschemeyer; Second; Director Daniels: To accept the September Warrants and August/September Credit Card Analysis as paid. Motion passed by unanimous vote.

4. ORAL COMMUNICATIONS (items not on the Agenda)

Presentation by Kim Adamson
Kim Adamson gave a presentation on what the District has looked at and what they are going to be looking at in the future to provide water for the District. (Presentation attached as Exhibit A)
Melanie Schumacher was present and answered a question by Director Meyer with regard to carbon offsets in the proposed desalination program with the City of Santa Cruz. When the energy minimization and greenhouse gas reduction plan that fed into the draft EIR was developed, a technical working group was assembled to identify potential projects that could create a portfolio. Eleven potential projects were identified that could be used to reduce the greenhouse gas emissions to a net carbon neutral for the proposed desal plant. The actual project selection was going to be left to each agency to formulate their own package and identify and approve what they would like to do since the identification and selection of them goes into a lot more than some of the criteria that were looked at. The package would be based on what the Board would like in terms of community input costs.

Ms. Adamson noted that by 2025 the District is expecting to see a water shortage of 1,360 afy (acre feet per year) and a total basin deficit will be 7 billion gallons. The District expects to achieve about 10% conservation through normal measures. Pumping needs to be reduced by 1,360 afy to recharge the basin. The only options are to find a supplemental supply or enact mandatory rationing. Without a supplemental supply, the District is looking at about 35% reduction of pumping over a period of a minimum of 20 years. Ms. Adamson noted that these numbers have been determined through scientific study and the District is currently in the process of independent peer review to confirm that the numbers are correct. Once the independent peer review is complete, a technical advisory committee will be assembled to review both the independent review and the initial studies results and confirm again that the data is correct.

Ms. Adamson addressed water shortage issues including that the District shares the basin with private well owners, with the District pumping about half and private well owners pumping the other half. The District has no jurisdiction over private well owners. Ms. Adamson noted they are moving forward with a partnership with the County and Central Water District to put together a private well stakeholder group so that private well owners can come to the table and talk about the shared issues. In February or March a meeting will be held to talk about a replenishment district, which is a district that is put together to protect and replenish the groundwater basin. A replenishment district does not supply water. Its sole purpose is to protect the basin.

Another challenge facing the District is development. Ms. Adamson noted she has been asked why new development is being allowed when there is such a critical water issue. There is a legal process that needs to occur before a moratorium can be put in place. The numbers need to be confirmed through the peer review process that will be occurring soon, so if a moratorium needs to be enacted the District will be able to legally do so. The District’s WDO program also requires developers to offset 200% of the water they will use. The staff is looking at new and different ideas for the WDO program such as having development provide satellite reclamation systems for large well users through WDO’s and providing the District with water saving equipment such as the No-Des system.

Ms. Adamson talked about the 15% summer conservation program. About half of that was actually saved. Summertime cutback goals were designed to reduce discretionary outdoor water use and return consumption to the winter levels where water use represents mainly indoor use for personal care. This year the Board has asked staff to
look at year round request for conservation that will be discussed at a future meeting where mandatory rationing will be on the agenda. In the meantime, staff is asking customers to continue their conservation efforts.

The District will be initiating monthly billing in early 2014 that will allow for more immediate feedback on current water use. Ms. Adamson also noted that the District implemented tiered conservation rates but that all of the funds that run the District come from rates. There is no tax income and no general fund. So while tiered conservation rates are in place, the top tiers can't carry the burden of the supplemental supply expense. The goal of tiered rates is to get people to use less water in order to not fall into the top tier. So if tiered rates include supplemental supply costs and they end up being successful, there will be no funds for the District to pay debt service or other supplemental supply costs.

Ms. Adamson reported that the State of California is close to finalizing their Maximum Contaminant Level (MCL) for Hexavalent Chromium (Chrome VI). If the proposed level is finalized it will affect about 1/3 of the District water supply. There is one production well already offline and another that will come offline permanently and treatment will be required at several other wells. The MCL does not come with an implementation period and the District cannot move forward with permitting the treatment process until the MCL is finalized.

Ms. Adamson noted that securing a supplemental water supply is crucial because pumping from the basin needs to be greatly reduced. The preferred alternative based on time, availability and cost to the District is a joint desalination plant with the City of Santa Cruz. That is still the preferred alternative. In light of the time the City is taking to engage the public and look at other options, staff thinks it is prudent for the District to look at back-up options should that project not go forward. That is what these meetings have been set up to explore. In addition to other desalination projects, staff will be looking at recycled water, water transfers, continue discussion about replenishment districts and looking at mandatory rationing. One or a combination of options is needed to overcome the issues with the basin and prevent further seawater intrusion.

President LaHue noted that these numbers do not take into account climate change and decreased recharge and increased sea level long term.

Ms. Adamson encouraged the Board to think regionally when considering options for answers to the District’s water shortage issues.

At the November 5th meeting, John Ricker will be presenting his report on water transfers. Bill Smallman will be presenting his plan that he submitted to the EIR as a comment, and Jerry Paul will be presenting his Lochquifer plan. A water rights liaison from the Regional water board will be available to answer questions about water rights issues. The District’s water right’s attorney will also be available for that conversation.

In January mandatory water rationing will be discussed and in February recycled water will be discussed.
Cherie Bobbe thanked the Board for using the larger room and for televising the meeting. She asked if the meeting with the County, Central Water District and private well owners included Seascape Golf, Cabrillo College and the County’s own usage. President LaHue noted that he would take these questions and bring answers back. Ms. Bobbe also asked about the No-Des system and at what point it will be discussed at a meeting. President LaHue noted that staff has been directed to bring back more information for the Board. Ms. Bobbe also asked about the curtailment ending in October as is noted in the newsletter. President LaHue replied that staff has been asked to come back to the Board to discuss whether to do cutbacks year round.

Paul Gratz acknowledged the change in the venue for this meeting. It’s encouraging that there is a much more engaged and present audience. He noted his disappointment that, after attending the meeting last month, that the Board has moved from a very progressive idea of having an interactive workshop to holding discussion in a regular meeting. Mr. Gratz wanted to point out that the technical part of Ms. Adamson’s presentation was superb, explaining how the aquifer works and the depletion and intrusion of the seawater. He wanted to know how come there was excessive development and consumption when almost 30 years ago consultants pointed out the consequences of the present course of utilizing the aquifer in the way it was. He feels that the community’s money has been wasted on the desal project without taxpayers/ratepayers being able to weigh in. He stated that, as the Board moves forward, it’s very important that there be accountability, an explanation of how the budget is used, and how the public is informed and engaged in the decision making process of whatever alternative(s) are pursued.

Colonel Michael Maxwell noted that he hand delivered as well as electronically delivered comments to the Draft EIR and requested response within 30 days of delivery. He asked that his receipt dated 8/12/13 be entered into the record. Col. Maxwell asked that the Board reject the Draft EIR as worse than deficient in its actual relevant content. He asked that the Board adopt his appropriate alternatives as noted in his response to the Draft EIR.

Don Heichel stated he found it significant that Ms. Adamson’s presentation showed Miami but not Los Angeles and Orange County. He noted that Orange County doesn’t do any raw seawater desalination, they clean sewage and inject it at the coast, running their water table 200 feet below mean sea level. LA had water intrusion from salt in the 30’s or 40’s, they also went to injection wells and made a curtain against the ocean and then they created a groundwater replenishment district for 43 cities over 400 square miles. He suggests the Board look at wrd.org and find out what’s possible when you have an authority to deal with over pumping. He feels the District is focused on the wrong ideas for supplemental water.

Jerry Paul thanked Ms. Adamson for her article in the Sunday Sentinel. He will be speaking at the next meeting and expressed a concern that the “train is moving” and that there is a window in the program of study that is being set up to look at alternatives, water transfers in particular. Mr. Paul is the author of the Lochquifer proposal that is one of 7 that have original content. He would like to share some of his 35 strategies with the Board without missing the “train” of the study schedule.
Michael Boyd noted his appreciation for Ms. Adamson’s report and the analysis and research she has done but felt she hasn’t gone back far enough. He talked about the “Enron event” and that rate making hasn’t been the same since then in electricity. As part of his litigation activities he has looked at conservation districts and all of the records he could find where this was discussed in the 1980’s about water rights on Soquel Creek. Mr. Boyd stated that the state has somewhere in the neighborhood of 19,000 acre feet of water rights on Soquel Creek that the District could get access to. He is encouraged that the District is doing a peer review and if an emergency can be declared he stated the District could get access to the 19,000 acre feet of water on the Soquel Creek. He is skeptical of the discussion of desal. Mr. Boyd wants whatever alternative the District comes up with to be put before the voters.

Director Daniels commented that even though the City has declared a reset, that to his knowledge, the District has not. It is known that there is seawater intrusion to the East and now it is in the Live Oak area to the West. What he thinks the Board is trying to do is find a few back-up plans that can be actively researched in order to put them in front of the voters.

Director Daniels noted that he has spoken to Doug Deitch this week and expressed to him that the aquifer used by Pajaro Valley and the Soquel Creek Water District is of the same formation but is not the same aquifer; in fact the State Department of Water Resources considers them separate basins. He informed Mr. Deitch that the District consultants had concluded there are about 200 afy that go from our area down to Pajaro Valley and that number will go up to 340 afy if and when the basin is restored up to the levels it needs to be. When you compare that to 6,000 afy that needs to flow out to the ocean to keep the seawater at bay, if you compare that to the 1,500 acre feet that are pumped out of the aquifer each year, then 200 afy is not consequential in his opinion.

Director Daniels reported on a presentation he attended that Ms. Adamson gave to the Capitola/Soquel Chamber of Commerce that was very well done. At that meeting, a representative from Tradewinds Mobile Home Association asked if they could be put on a list of prospective toilet recipients that could be given to developers who are looking to replace toilets for WDO credits.

5. INFORMATION ITEMS

5.1 Presentation by DeepWater Desal

DeepWater Desal, LLC members present were Dr. Brent Constanz, CEO, Mr. David Armanasco, Public Relations/Government Affairs Officer, Mr. Dennis Ing, CFO

Mr. David Armanasco began the presentation of the DeepWater Desal plant they are proposing to build in Moss Landing. This was followed by Dr. Constanz presenting and Mr. Ing discussing the costs and relationship between entities in a symbiotic relationship for the use of the combination data center/desalination plant.

Director Meyer asked if the project would require more than Salinas as a partner in the JPA and the answer was yes.
Director Jaffe asked how dependent the plan is on the data center. The reply was that the entire project could be done without the data center but not having the data center would increase costs.

Director Hoernschemeyer wanted to know how a desal plant benefits a data center. The reply was that a desal plant itself generates carbon credits because of the warmer water that uses less power.

Director Daniels was concerned about the slide that showed the symbiotic relationships between a desal plant and other entities. He felt it made things much more complicated and much more interdependent and prone to disaster.

Mr. Armanasco invited the Board members to come to Moss Landing to have a detailed discussion at their offices and noted their technical information is on their website.

Ms. Adamson asked about ownership of the intake and outfall being privately owned. Has there been any consideration of allowing the JPA to own the intake and outfall and lease the use to the data center? Mr. Armanasco noted they would be open to discussion.

Mr. Gratz asked DeepWater Desal to list the basic negative problems that have been identified.

Mr. Armanasco indicated a report would be published in November noting that the science supports the theory. The biggest negative in his opinion is the image of desal, growth and political issues.

Ms. Bobbe asked if there is anything like this in operation at this time.

Dr. Constanz noted that Hawaii has a lot of water cooled hotels and mentioned a desal plant north of Barcelona that has a deep water intake.

Col. Maxwell wanted to know how far out from shore the biological samplings were taken.

Mr. Armanasco noted 1.1 miles was the answer. The deep water canyon comes up to within 100 yards of Moss Landing Beach.

Mr. Heichel asked how much it’s going to cost to treat the Aromas Red Sands Chrome VI wells versus the price for DeepWater Desal water. Mr. Dufour answered that treatment of chrome VI would cost less than the $1000/AF that DeepWater is projecting for their desal water.

Sandy Ericsson noted this has been an interesting discussion and as a ratepayer was happy to hear someone wants to drive the cost of water down.

Mr. Paul understands the water itself would cost around $1,000 per acre foot, but wondered about the capital costs that would be on top of that.

Mr. Armanasco stated that the capital costs are included in the $1,000 per acre foot and reiterated that cost is for water at the “fence line” and does not include getting the water to the District.
5.2 Presentation on District-only Desalination

Taj Dufour gave an overview on how a proposed District-only Desalination plant would work. He noted that there is an Ocean Plan amendment being considered by the State Water Resources Control Board that would allow direct discharge of the brine rather than requiring it to be blended. In a cost comparison, a District-only plant and mandatory rationing may be similar but the daily impacts to customers should be less with desal.

Mr. Dufour noted that the District’s needs are long term and we would need to decide whether to size a plant for our own use or to think regionally and size the project so it could be used by others in the area. The plant could be used for desal until recycled water is approved "direct to tap". Then the plant could be repurposed for this function by using tertiary treated wastewater.

Questions from the Board included looking into how the Freshkeeper system may fit in this scenario, potential locations, size of sites, and whether the District already owns property that is suitable. Mr. Dufour noted that it all depends on what the District is looking at in regards to size and that there are no sites owned by the District suitable for this use. Locations need to be studied further.

Ms. Adamson commented that purple pipe could be brought from the City of Santa Cruz for future treatment for potable use and serve large irrigators along the way.

Ms. Bobbe asked how long it would take for water to become available if the District did a stand-alone desal. Mr. Dufour answered roughly 10 years, but noted it depends on how much of the current EIR could be used. Ms. Bobbe stated she doesn’t think we have 10 years.

Mr. Heichel asked if the Board members have toured the Scotts Valley wastewater plant. President Lahue commented that he tours it every year and knows it well. Mr. Heichel feels that this type of water could be used for irrigation. It was noted that Scotts Valley can't use all of its wastewater. If there were a direct to potable law, treated wastewater would become more viable.

President Lahue noted that in February the Board will be meeting to discuss recycled water in more detail.

6. ADMINISTRATIVE BUSINESS

6.1 Update on Draft EIR and Request of Direction on Responding to Comments

Heidi Luckenbach, scwd2 Desalination Program Coordinator, and Melissa Hetrick, Environmental Projects Analyst were present from the City of Santa Cruz (City) to give the Board an update on the Draft EIR process. Ms. Hetrick noted that over 400 comments were received and are being reviewed. A Draft EIR public review summary report will be posted on Thursday, October 17, 2013 on scwd2 website. This will include comments that were made on the Draft EIR but will not include responses to comments. The City is in the process of putting together a schedule and budget for the completion of the final EIR that will likely be phased. Under consideration is a Phase I that would include further analysis.
of the comments, meeting with regulators, technical work and a further look at alternatives to the project. Phase II would incorporate the comments into the EIR, then finalize it. This work would require contract amendments with URS.

Director Hoernschemeyer asked how soon a cost estimate would be available for the various phases as Ms. Hetrick described.

Ms. Luckenbach stated that a preliminary scope, schedule and budget for the process will be brought to the City Council on November 12, 2013.

Director Daniels had questions about whether the EIR would need to be re-issued if there were substantial changes to the body of the document. Ms. Luckenbach noted that would only be required if there are substantial changes such as a new protected species listed that affect the studies already completed within the document. Ms. Luckenbach responded that it’s not typical in CEQA to have this interim step of addressing comments from the public without finalizing the EIR.

Director Jaffe asked if there is a time limit on the response to the EIR. Ms. Hetrick stated that changed conditions are not time dependent. Major changes would need to occur before having to recirculate the document.

Director Meyer asked if it would be feasible in Phase I to start with the analysis of the significant alternatives that the community has proposed. It would benefit the District if the early phase included the analysis of alternatives as the District is currently looking at back-up plan options. Ms. Luckenbach noted that Phase I would include a further look at alternatives brought up heavily in public comments.

Director Jaffe asked if there is any CEQA specification as to continuity of consultants. Ms. Hetrick responded that there is no such requirement.

President LaHue stated the Board can’t make a decision about responding to the comments until they have more information about the cost and schedule.

Ms. Adamson reported that she and Director Meyer attended the City Council meeting and direction to City staff was to come back with a proposal to look at a schedule and what it would cost to do Phase I which is to address the comments; not respond to comments in the form of rolling them into the final document. There was a request by City Council for the District to provide input as to whether they want to even consider moving forward with addressing comments. Ms. Adamson recommends the Board consider not going all the way through to the end of the EIR, but has the responsibility to address the comments, many of which will be important in our evaluation of back-up plans. Ms. Adamson said that of the 400 commenters, only about 10% have requested that the comments should not be answered.

Director Jaffe noted that he can’t make a decision on moving forward until he’s seen the comments. His major concern is if the comments are critical of the EIR report, not because of the difference in philosophy on whether or not desal is the way to go. If comments are critical on the actual report itself we might be in a
situation where addressing the comments is going to be so lengthy that we should wait until we find out how the rest of the process is playing out.

Director Hörnschemeyer asked Ms. Adamson if some of the members of the City Council supported the general idea of essentially a Phase I completion of replying to the comments. Ms. Adamson replied that there was verbal support; they wanted to see the budget attached to that plan and the District’s preference.

President LaHue asked for clarification on responding versus replying in Phase I that sounds more like an analysis of the comments and questioned whether that would satisfy those who had submitted comments.

Ms. Hetrick responded that, in a normal process, the final EIR is the response to comments. Some comments ask for changes in the document, so in order to respond to them you would have to show those changes.

President LaHue asked if the Phase I analysis would be public. Ms. Hetrick replied that it would be.

Director Jaffe would like to see an analysis beyond printing up all of the comments that lets people know the comments have been heard, for example, there were 26 comments on this topic and the variations on this issue, so that the public knows their comments are being taken seriously.

MOTION: President LaHue; Second; Director Jaffe: To direct staff to come back with a plan for a Phase I that prioritizes the comments on alternatives first and responds to those issues in a way that would be satisfying to the public and to present a budget for this work. Motion passed by unanimous vote.

6.2 Direction to Staff Regarding Further Investigation of Desal Options for Back-Up Plan

Director Meyer feels that DeepWater Desal has a lot of hurdles to cross but is proceeding without the District’s participation so we may be able to get involved at a later stage.

Director Daniels would like to see alternatives referred to as active or inactive alternatives where active alternatives would be researched and those alternatives that are deemed inactive alternatives would have no effort expended by staff at this time. Also he suggested a third category of non-viable alternatives.

President LaHue would like to see more in depth information on DeepWater Desal. He would like to know what it would cost for a pipeline from Moss Landing to the District.

Director Jaffe noted that with the DeepWater Desal he felt that the desal portion of the project was not a priority and he is not sure what their purpose is in having it.
Director Hoernschemeyer would like staff to present an overview of District-only desal and what are the major questions that need to be answered, and indicate how much work would need to be done to make it reasonable.

Director Daniels asked that, of the existing studies, which are applicable to District-only desal.

Ms. Adamson agreed that is an important question that needs to be answered before it can be decided if it is viable to move forward. Staff can focus on what can be used of our existing studies.

President LaHue wants to see a presentation on Freshkeeper technology.

**MOTION:** Director Daniels; Second; Director Hoernschemeyer: To direct staff to continue to investigate local desal as an alternative including Freshkeeper and how much of the existing EIR can be used **and** to continue investigation of the cost of delivering deep water from Moss Landing to the District. Motion passed by unanimous vote.

7. **WRITTEN COMMUNICATIONS AND CORRESPONDENCE**
   None

8. **ADJOURNMENT**
   There being no further business, President LaHue adjourned the meeting at 10:15 p.m. to the next scheduled meeting on November 5, 2013.

SUBMITTED BY:                                             APPROVED BY:

Karen Reese, Board Clerk                                    Thomas R. LaHue, President