STAKEHOLDER ENGAGEMENT COMMITTEE

MINUTES

REGULAR MEETING
Wednesday, December 11, 2019
3:00 PM
(Paragraph numbers coincide with agenda item numbers)

1. CALL TO ORDER / ROLL CALL

The regular meeting of the Delta Conveyance Design and Construction Authority (DCA) Stakeholder Engagement Committee (SEC) was called to order at the Belle Vie Vineyards, 19900 Sherman Island Cross Rd., Rio Vista, CA 94571 at 3:04pm.

Ms. Sarah Palmer welcomed SEC members and the public to the meeting, thanked the venue hosts and acknowledged the work of staff to prepare for the meeting. This meeting facility accommodates meeting size and allows for live streaming during the meeting.

Committee members in attendance were Angelica Whaley, Anna Swenson, Barbara Barrigan Parrilla, David Gloski, Douglas Hsia, Jim Wallace, James Cox, Karen Mann, Malissa Tayaba, Dr. Mel Lytle, Phillip Merlo and Mike Hardesty. Ex-officio members Gilbert Cosio and Michael Moran were also in attendance.

Committee members not present included Cecille Giacoma, Isabella Gonzalez Potter, Jesus Tarango, Lindsey Liebig, Paul Clausen and Sean Wirth.

DCA Board Members in attendance were Director Sarah Palmer (Chair) and Director Barbara Keegan (Vice Chair). In addition, DCA and DWR staff members in attendance were Kathryn Mallon, Valerie Martinez, Joshua Nelson, Phil Ryan, Gwen Buchholz, Andrew Finney, Jim Lorenzen and Carrie Buckman.

2. WELCOME & REMINDERS

Ms. Palmer stated the purpose of the SEC is to create a forum for Delta Stakeholders to provide input and feedback on technical and engineering issues related to the DCA's current activities. The SEC is a formal advisory body to the DCA Board of Directors and is therefore subject to public transparency laws applicable to public agencies such as the Brown Act and the Public Records Act. It is important to note that the SEC and its meetings are not part of any California Environmental Quality Act (CEQA) related to a potential Delta Conveyance project.

Ms. Palmer introduced Solano At-large SEC member Mike Hardesty and asked him to introduce himself and indicate why he wanted to be part of the SEC.

Mr. Hardesty said he has been in water management and flood control in the North West Delta, managing Reclamation District (RD) 2068 for over 40 years. He joined the committee because he

was asked to do so and was encouraged to serve by the RD Board of Directors. The proposed project is within the area of RD's interest.

Ms. Martinez reviewed housekeeping items. Members should sign in for accurate record-keeping. Members of the public can fill out and submit speaker cards in order to speak during the public comment period. Meeting is being filmed and webcast live. Please be mindful of cameras and walk behind them if leaving the meeting. Emergency exits were reviewed.

Ms. Martinez provided a materials overview. SEC members have an agenda, meeting minutes from last meeting, workbooks, member contact list, glossary and CEQA basics info. Glossary was a suggestion of committee members and will grow as meetings progress. Maps and factsheets that correlate with the presentation are also provided.

Ms. Martinez acknowledged that members are receiving a lot of information. This meeting is intended as a "Conveyance 101" meeting. Members are at different levels of understanding and knowledge, so this information will help set a baseline on which to work moving forward. It can also help fill in the knowledge gaps of those more familiar with the potential project. DCA wants to ensure members have adequate information to collaborate on an equal footing.

As a reminder, all meetings are subject to Brown Act. We can only discuss what's on the agenda. Meetings are specific to design input and are not part of the CEQA process. Chair presides over the meeting; the facilitator guides discussion. Each meeting will be goal-oriented and purpose driven. Information is subject to change. The SEC holds no formal voting authority. Consensus will be sought at the meetings; all views recorded and reported.

Ms. Palmer reminded attendees that it is not possible to respond to public comments if it is not on the agenda.

3. MINUTES REVIEW: November 13, 2019 Regular SEC Meeting

Ms. Palmer asked if there were additions to minutes from committee members. No changes were reported. Ms. Martinez informed members any changes could be sent by Friday, Dec. 13. The minutes are accepted by consensus if there are no objections. No objections were reported.

4. DISCUSSION ITEMS/PRESENTATIONS

a. DWR: Review CEQA Process

Ms. Buckman with DWR introduced herself and said after last meeting, members requested more baseline info regarding the CEQA process and the various acronyms used in SEC discussions. While some SEC members are very familiar with the process, others are not; thank you to the more seasoned members for your patience as we take a step back to provide background for other committee members who are less familiar.

Ms. Buckman started by explaining what CEQA is. It is a state statute enacted by the state legislature that requires a decision-making process with environmental consequences in mind. It is intended for decision makers to understand and see the environmental issues associated with a project before they decide if they want to implement it and whether feasible mitigation measures are possible. Public participation is essential and it does not require that projects

with significant environmental impacts be denied; projects can move forward, but the impacts must be identified and generally mitigated if feasible. A similar federal process is the National Environmental Policy Act (NEPA). CEQA is more restrictive in some ways, but there are a lot of similarities. The main objectives of CEQA are to provide information to the public and decision-makers about the potential significant environmental impacts of a proposed project. This disclosure piece is very important to CEQA, as it tries to identify and disclose what is going on with a project. Other CEQA objectives are to help identify ways to avoid or reduce significant impacts; minimize and avoid significant impacts to the environment by using feasible alternatives and mitigation; and disclose to the public the reasons a project is approved even if it will have some significant adverse impacts.

In terms of who is responsible, DWR is the Lead Agency according to CEQA. The Lead Agency is the party with the most responsibility for a project. As the Lead Agency, DWR will be leading the environmental compliance effort and will move forward with preparing an Environmental Impact Report (EIR). The EIR will comply with NEPA because federal agencies are expected to come into the process and DWR wants to ensure they have the needed information. DWR will be leading CEQA-required public and agency outreach, public participation and stakeholder engagement activities.

There are other agencies involved as Responsible Agencies, meaning they take some action on the project (such as permitting) but their role is not as large as the Lead Agency. CEQA also identifies four Trustee Agencies that have jurisdiction over natural resources affected by a project. The Department of Fish and Wildlife weighs in on projects that could affect fish or wildlife in the state, the State Lands Commission looks at any project that could affect state-owned sovereign lands. The Department of Parks and Recreation looks at projects that could affect state parks and the University of California looks at sites within the natural land and water reserves system. It is also expected that federal agencies will be involved as part of the NEPA process.

Ms. Buckman also reviewed key acronyms that will be used throughout discussions with the SEC and reminded members they have a glossary in their notebooks. There is a standard process involved in CEQA compliance. First, an action is proposed, then it is decided if that action constitutes a project and if so, if the project is subject to CEQA. If a project is subject to CEQA, there are a list of exemptions that exempt a project from additional CEQA documentation. If that is the case, a Notice of Exemption is completed. Absent a Notice of Exemption, however, the Lead Agency completes an Initial Study that helps determine which CEQA document is required for an agency decision—a Negative Declaration if there are no significant impacts, a Mitigated Negative Declaration or an EIR. After that determination is made, the appropriate document is prepared, presented for public review and then there is either an adoption of the Negative Declaration or Mitigated Negative Declaration or there is certification of the EIR. This is followed by approval of the document, findings and then documentation of the decision made by the agency on the project.

Ms. Buckman presented a graphic that shows all the steps the DWR will be going through with the Delta Conveyance CEQA process. The reason the NOP is frequently mentioned is because it kicks off the environmental process; it is the first major step of the CEQA process. The NOP will include a proposed project and starts the scoping period. Scoping meetings are part of outreach that is very important for the environmental analysis. After the scoping period ends,

DWR will generate a summary of the scoping meetings as well as an outreach plan that will be used for the rest of the process. DWR will not only conduct all CEQA-required outreach but will also be conducting additional outreach activities outside of those requirements.

After feedback is received through scoping, DWR will conduct an alternatives analysis to decide on the reasonable range of alternatives to move forward, define the project and alternatives and conduct extensive technical analysis on the alternatives. That will lead to analysis of potential impacts and mitigation to reduce those impacts. Impact analysis and mitigation requires a lot of technical studies, extensive modeling and environmental impact analysis.

Based on the impact analysis, an Administrative Draft EIR will be developed and then a Public EIR. The Public EIR is another formal step required for CEQA outreach. It involved public circulation of the EIR and a public hearing.

These steps will be followed by selection of the Preferred Alternative and a response to public comments received on the Draft EIR. DWR will then develop a Final EIR and prepare a Notice of Decision that documents the decision made on the project.

Feedback received after the last meeting indicated that it is confusing to understand the SEC's role in terms of what is classified as engineering as opposed to what is classified as environmental. This will be an ongoing topic for clarification and discussion. Ms. Buckman presented a flowchart with some ideas about how to clarify the roles. In general, DWR is doing the environmental planning while the DCA is doing the engineering. The SEC is a committee to the DCA. All of the work DCA is doing is where the SEC will be commenting.

The DWR is working on NOP preparation and working to define the proposed project. The DCA has been working to help support the process of providing the information necessary to include in the NOP in order to give some idea about what the project might look like so that people can respond to that in their public comments. The work DCA has conducted will be made public in the NOP. In the meantime, the SEC is receiving material that is "pre-NOP" and more foundational in nature. This will help SEC members gain a better understanding of what a Delta Conveyance project might look like, what it might include and what drivers might be considered in siting certain facilities. After the NOP is released, scoping begins. Concurrent with scoping, DCA will begin concept engineering on the proposed project. During this effort by DCA, there will be discussion with the SEC regarding the features that could avoid or minimize different types of construction impacts. As the scoping meetings conclude, DWR will identify alternatives. DCA will provide engineering on the alternatives identified, which again will involve discussions with the SEC. DCA's work and collaboration with the SEC will then feed into DWR environmental impact analyses and that information will lead to the Draft EIR.

In addition to CEQA, there is an entire suite of environmental permits that need to be secured for this project from various agencies. Permitting will be done somewhat concurrently with CEQA document, but CEQA needs to be started before detailed permitting efforts can proceed.

Ms. Buckman described an NOP and reviewed what it includes. The NOP documents the intent to develop an EIR for a proposed Delta Conveyance project, which triggers the start of scoping. The purpose of scoping is to help DWR define the scope of environmental analysis. The scoping comments received will help indicate where more in-depth analysis is needed. There will also

be comments on the alternatives that members might want to see to a proposed project. The NOP will identify the public comment period and provide information on the public meetings. The NOP will include a description of the proposed project at a general level of detail, indicate proposed project objectives, show the proposed project area and indicate the proposed project facilities.

Ms. Buckman highlighted a couple of areas that often cause confusion. First, it is important to note that an NOP does not represent a decision. Rather, an NOP is just the starting point of the process. CEQA requires a description of the proposed project, but DWR will consider a range of reasonable alternatives and make a decision after the environmental documentation is complete. Also, members of the public are often frustrated during scoping meetings at the lack of information available. At the time of scoping, environmental analysis has not yet been performed. Environmental analysis is completed after scoping and incorporates the feedback received during the scoping period.

There is a long list of environmental resources that are analyzed in the EIR. The potential adverse effects of the proposed project on the physical, human and natural environment will be evaluated.

The SEC intersects with the CEQA process by providing critical input into the design and engineering that will be considered as part of the environmental review process, including identifying potential engineering and design strategies to avoid and/or minimize community effects. The conversations with the SEC will mostly be about logistics, noise, roadways, air quality, dual benefit facilities and transportation.

Ms. Buckman reviewed key milestones in the CEQA process. The NOP was anticipated for early December, but the schedule may now shift because of the holidays. DWR hopes to file the NOD in early 2022. The other environmental and permitting processes are scheduled to begin in early 2020 and proceed from there.

Ms. Buckman provided a follow-up to the soil investigations conversation from the last meeting. The Initial Study/Proposed Mitigated Negative Declaration was released on November 20, 2019. The comment period has been extended until Jan. 15, 2020. The purpose of the study is to gather information that will inform and evaluate alternatives for the proposed Delta Conveyance project. The analysis includes soil borings, cone penetration tests and geophysical surveys.

Ms. Buckman showed the DWR contact channels available to stay informed and asked if the committee members had any questions.

Ms. Mann asked if waterways would be studied as part of the transportation analysis. Ms. Buckman confirmed the Delta Conveyance environmental analysis will include information about impacts on waterways. SEC discussions will be specific to transportation logistics and whether or not barging will be considered in regards to construction.

Ms. Palmer stated this is why DCA tried to ensure there were representatives from the boating community on the SEC.

Ms. Mann asked if the safety of using waterways would be discussed in the SEC meetings. Ms. Palmer confirmed it would be included as a topic of discussion.

Mr. Wallace asked if this committee's input would be included in the EIR chapter that documents the CEQA-required public participation. Ms. Buckman said there is not yet a final answer on the particulars of the EIR. DWR will want to document project-related efforts that took place, but details about what is discussed here, such as minutes, will not be included.

Mr. Wallace expressed the committee is being heavily restricted from mentioning environmental impacts. If DWR can use SEC input to say they have met the CEQA requirements for public participation but members cannot mention environmental impacts, then the SEC seems like a one-way street to benefit DWR.

Ms. Buckman explained that DWR welcomes comments about environmental impacts, but in a different forum because those comments have to be tracked appropriately, and the SEC does not provide for that process. If this group does come to an agreement about how the design should change based on their input, she would think the SEC would want their input reflected somewhere in the EIR. She asked Mr. Wallace to clarify his concern.

Mr. Wallace said he isn't clear how the committee will talk about construction and design if we aren't discussing CEQA after the NOP comes out. Construction and design affect many of the resource categories that will be analyzed.

Ms. Buckman mentioned the issue that Josh addressed in regards to whether or not committee members could comment during the CEQA process.

Mr. Nelson clarified that participation on SEC doesn't affect any individual committee members or their representative organizations from fully participating in the CEQA process, as those activities would be on behalf of that individual or organization and not on behalf of the DCA or the SEC.

Ms. Palmer commented that this advisory group is comprised of very disparate committee members with varying viewpoints, making it difficult to come up with an SEC statement on the EIR. However, any member can comment as an individual.

Mr. Wallace clarified that until the NOP is released, it makes sense not to discuss particular CEQA issues because there is not yet a project description. After the NOP is released, will SEC discussion still be constrained to avoid CEQA issues? Clarification is needed if SEC comments will be included in the CEQA documents.

Ms. Buckman clarified she is not planning to included SEC comments. As part of a description of the overall process, it may be mentioned that these meetings occurred. However, DWR is not planning to include specific comments from this group.

Mr. Wallace asked for a simple "yes" or "no" as to whether the SEC is a part of the public participation required by CEQA. Ms. Buckman and Ms. Palmer both answered no.

Mr. Wallace asked if the SEC meetings would be in the Public Participation part of the document.

Ms. Palmer recapped that this committee is not a part of the CEQA process, but that doesn't stop any individual member of the SEC from commenting.

Ms. Martinez asked if it would be helpful for Mr. Nelson to create a memo with a response to this concern.

Mr. Wallace clarified he is not concerned about individual comments. Rather, he wants to make it clear that committee members have been told from the beginning that SEC is not part of CEQA. Will DWR take advantage of their input and include it in the public participation portion of the EIR?

Ms. Buckman would like to think about his question so she can provide a satisfactory response. The point of the SEC is to help minimize impacts in the way the project is constructed and designed. It should be acknowledged that the process happened, but the comments made here are not going to be considered as comments on the EIR. SEC discussions will be kept as a separate process, but the whole idea is to come up with a project that may not be supportable, but more livable.

Ms. Keegan added that one of the concerns DCA Board members heard when establishing this committee was that the committee might create a "super-CEQA" process. CEQA is a law that has to be followed.

Ms. Mallon asked Mr. Wallace if he is concerned that SEC member comments will direct the engineering and then their input will be used as a defense of how the project proceeds. Understanding the underlying concern may help with a better response. Ms. Mallon asked for an example of a concern that might manifest itself.

Mr. Wallace said his concern is that we go through entire process being told SEC discussions are not a part of CEQA, but then it is shown in Public Participation section of EIR.

Ms. Mallon thanked Mr. Wallace for clarifying.

Ms. Palmer indicated a response would be developed and DCA will follow-up.

Ms. Swenson remarked it would be helpful for SEC members to have print outs of the meeting presentation slides for taking notes.

Ms. Buckman also acknowledged the screens were not set up optimally for the SEC members to follow along, and that will be addressed at the next meeting.

Ms. Swenson asked who decides what a reasonable alternative is, what makes an alternative qualify as "reasonable" and to whom is the alternative reasonable.

Ms. Swenson also shared her concern that SEC meetings will replace typical public outreach that is encouraged as part of the CEQA process. Public participation should not be encapsulated

to this process alone. There is a need to actually go out into the communities and garner real, raw public comments or opinions about the project.

Mr. Gloski asked what is the board or body that approves the EIR. Ms. Buckman explained the EIR will be a DWR document and a decision will be made by the Governor.

Mr. Gloski asked if the delay of the NOP's release will affect the SEC January meeting content.

Ms. Mallon indicated that will be addressed at the end of the meeting.

Mr. Gloski commented that the soil sampling maps looked like a scatter shot and asked for context for understanding what the maps were depicting.

Ms. Mallon explained that the DCA is open to a wide range of corridors to reduce effects. DCA compiled all of the historical data from the multiple studies that have been completed and identified where additional data was needed in order to have a more complete picture of the soil quality throughout the entire Delta. The dots represented on the soil sampling maps reflect places where there are gaps in knowledge for understanding broadly about the underlying soil conditions so that if there are suggestions to move any potential project in a certain direction, the testing doesn't need to be redone or expanded at that point. DCA needs this information to be able to evaluate different routes more efficiently.

Ms. Barrigan Parrilla expressed thanks for the soil sampling comment period extension and for reflecting water quality issues during construction as one of the environmental resources that would be analyzed.

In regards to the soil sampling maps, Ms. Barrigan Parrilla relayed the request for coordinate markers on each collection point so levee impacts can be tracked by RD's. Adding this information in the future would be helpful for that purpose.

Concerning the CEQA question, Ms. Barrigan Parrilla's concern is that she doesn't want to see SEC participation becomes used as a reason to interrupt due process rights. Participation is in good faith, and there are hopes that the process works as intended. If it doesn't, members don't want to get hammered for having participated. If there is a way to help clarify in writing, it would be greatly appreciated.

Ms. Buckman responded that her confusion is that on one hand, we don't want to hide that this process occurred and it should be acknowledged in the EIR, but she also understands members not wanting their participation to be used against or limit them in any way. Ms. Buckman will try to figure out the best way to describe it for everyone.

Ms. Barrigan Parrilla also asked if issues discovered during soil testing or field work will be released by DWR on a real-time basis. Delta residents don't want to suffer through an existing problem all the way through construction.

Ms. Mann asked if any soil from under the river is going to be studied. There are concerns about quality and safety of waterways for fish as well as people.

Ms. Mallon confirmed with Mr. Finney, Geotechnical Engineer, that there are quite a few in-river bore holes included in the study. Ms. Buckman clarified that no action has yet been taken, but there are currently about 50 in-river bore holes under consideration.

Dr. Lytle commented that one of those in-river borings is across from one of the Stockton Municipal Utilities Department (MUD) intakes so MUD will be providing comment on the actual document. As a general comment regarding CEQA, the process overviewed at this meeting is specific to a conveyance project that goes from point A to point B. There are also other efforts underway, such as the Governor's Resilience Portfolio. It greatly expands potential project and regional efforts, collaborations and all the statewide efforts aimed at improving resiliency. A program level CEQA analysis should move forward alongside this particular project's CEQA effort because it is interrelated with how this project connects to the rest of the system in California. It seems like a sensitive time to try to think about some of these things.

Ms. Palmer opened public comment.

Melinda Terry, Executive Director of the Central Valley Flood Control Association, wished a happy birthday to new member Mr. Hardesty. Reclamation Districts are concerned that many proposed soil drillings are on top of, through or near levees. There were no mitigations so there was apparently no analysis and no conversations. There is mitigation that prohibits drilling within 150ft from the toe of a levee to a house or business building. Going through the levee is probably more doable but requires a 408 permit from RD's and terms and conditions will apply. RD's will be submitting their comments. This is another example of the failure to communicate or to look at the obvious and not talk to some of us ahead of time.

Regarding the CEQA issue, Ms. Terry expressed her concern that there are lot of details to ensure in the CEQA process. One requirement is to conduct stakeholder meetings for the EIR and about the mitigations. This group is prohibited from talking about those mitigations. The issue is that you can't have it both ways; you can't say you are prohibited from talking about CEQA and those mitigations that would be important to SEC members and then use this committee's participation as satisfying the requirement for public outreach. The SEC is not a part of the CEQA-required outreach process. It can be documented and included in some other way, but don't claim this as outreach if SEC members can't address mitigations. There should be a statement clarifying that the SEC is not part of the outreach effort required.

Ms. Palmer asked Mr. Nelson to clarify for her if the SEC is prohibited from talking about mitigations.

Mr. Nelson clarified that all SEC discussions need to stay within their scope and subject matter that is before them, such as construction effects and drivers.

Mr. Hsia asked where committee members can represent their views. Ms. Buckman highlighted that the DWR will have a public engagement process separate from the SEC. A formal scoping process will follow release of the NOP and there will also be a formal process to make public comment on the Draft EIR. Those are great places for any individual SEC members to make their comments to ensure they are formally in the record. In addition, public outreach steps are scheduled in between so that continued public involvement can be ensured. DWR is not counting only on this body to provide that outreach.

Deirdre Des Jardins asked for clarification regarding whether the proposed geotechnical drilling was being done under the $75 million contract DCA signed with Fugro. It is being represented that this is all being done by DWR, but there is no reference to this contract. Ms. Des Jardins also expressed concern about the drilling locations and asked for facility plans to be disclosed. It is clear there are concentration of points near the Water Fix project intakes and also on Bouldin Island. From knowledge of geotechnical drilling, soil samplings are not done randomly without some kind of facility plans. The holes are expensive to drill, especially the ones that go down 200ft. Facility plans have been requested before; please disclose.

Osha Meserve, Local Agencies of the North Delta, said there was a question on the agenda and asked by Ms. Swenson in regards to who gets to determine the reasonable range of alternatives; please ensure the question is answered. Ms. Meserve heard it stated earlier in the meeting that the Governor will certify the EIR, but it is actually DWR that will certify the EIR for this project. Based on her 20 years of CEQA practice experience, Ms. Meserve expressed that DCA is having a hard time defining what this committee is doing is because community impacts and the human environmental measures that would be at issue here are the very same things that would be what CEQA looks at: noise, traffic, air quality, aesthetics. There isn't a separate thing that's called "engineering." Unsure how it can be resolved, but it's an issue that agenda says it is not about CEQA, but this process will inform CEQA. The concern many share is how this committee's participation will be characterized. What has not been mentioned is the EIR for the prior Twin Tunnels project that had an appendix regarding public participation. Members of this committee would be disappointed to see discussions indicating how wonderful the public participation was and how the SEC was a part of that participation. At the first meeting, many members said they were opposed to this project as they understood it, but those comments were not reflected in the minutes. The minutes should not be sanitized. All members should look carefully at their comments and make the appropriate corrections.

Ms. Meserve indicated when she heard DCA Board members report back to the JPA last month, they talked about what a wonderful group of people the committee members were and how they might support the project. Those may not have been the words used, but that was the characterization. Not having been to the first meeting, the characterization reflected wasn't what the meeting seemed to be about. There is a lot of well-placed trepidation to participate in this committee. Many people have decided not to participate. We appreciate it is an open process and that we are able to do the best we can within the confines, but DCA needs to think about what those confines are. Finally, from a Delta perspective, we don't want DWR to be able to cite the existence of this committee as a defense in anything. In ongoing litigation with DWR over the past failed tunnel project, Ms. Nemeth is citing this project as something that is happening that is very positive. There needs to be an agreement reached with SEC members that their participation will not be used in a way that will be negative for groups they represent.

Ms. Palmer remarked that it was not her recollection that anyone said SEC members would be in favor of the project.

Mr. Moran asked for confirmation of a clarification he could offer about the earlier CEQA discussion. What the SEC comes up with as a group or as individuals in an advisory capacity means they are just advising design of the project as would any academic studies or any body of knowledge that's already out there. That final design goes through the CEQA process.

Ms. Mallon concurred that is an accurate characterization. DWR will then take that design and perform the assessments.

b. DCA Concept Engineering Directive / Stakeholder Engagement Committee Role

Ms. Mallon indicated that discussion of the CEQA matter will be added to the agenda for the next meeting so there is clarification.

Ms. Mallon explained the goal of this discussion is for committee members to have a basic understanding of all the individual pieces that might make up a conveyance system, understand their purpose and component pieces and also understand what kind of space might be needed for construction and how DCA thinks about siting facilities.

Around the room are several maps, so those who enjoy maps will enjoy this discussion. The maps that will be presented each represent specific issues and are the same maps that DCA uses to think about where facilities could be located.

Ms. Mallon clarified what will be asked of committee members at SEC meetings. At the last meeting, an SEC member asked how many DCA staff members had spent more than 5 hours in the Delta. Ms. Mallon understood the point of the question, and indicated that in the past 3-4 months DCA staff has participated in Delta fishing expeditions, boat trips, an evening crane flights session and a historic site tour of the Delta. Phil Ryan, who will be presenting on the individual components discussion, shared a glass of pear cider with the gracious hosts at the Hemly home in Hood. DCA staff is doing their best to understand the Delta and how that affects the way facility design and location is approached. Think of yourselves as resources to help fill the gaps in our knowledge so that the documents DCA produces form the definition of the project. DCA's engineering documents will then be handed over to the DWR for environmental analysis. DCA wants to ensure those documents reflect the input and concerns of SEC members and those they reach out to. What will happen in the CEQA process is unknown, but Ms. Mallon indicated her job is to share information DCA has collected and how the engineers are thinking about the project in order to give members an opportunity to provide feedback. Members will be able to indicate what they like or dislike as well as things that should be reconsidered or things that DCA may have missed by not knowing the Delta as well as committee members do.

Ms. Mallon mentioned Mr. Ryan will be providing an overview of system components. It is important to note that some facilities may look familiar from the last process because they are meant as illustrations to start the conversation. DCA will be reworking them, looking at different locations and sharing much of that information with the SEC. For example, the intake rendering Mr. Ryan will show is for purposes of demonstrating what an intake does and what it might look like, but the image is from the last process. It is guaranteed the intakes for this project will look different because DCA and the SEC will be working on the design together. The visuals shown at this meeting are for illustrative purposes only.

Ms. Palmer opened public comment.

Ms. Terry asked DCA to please provide documents along with the agenda. As North Delta Water Agency manager, her job entails attending public meetings. Attendance is often

determined by the agenda, but the wording on this meeting's agenda was vague and it was difficult to discern the relevance to her agency. Supporting documents are typically provided with agendas to help people decide if they need to attend. If the DCA is committed to outreach beyond committee members, that information should be posted.

Ms. Palmer mentioned that not knowing when the NOP would be released affected what could be published and when.

Mr. Nelson mentioned there was a staff report on 4b in the packet.

Ms. Des Jardins said the packet of siting drivers information provided at the meeting should have been provided ahead of time. The intake rendering appears to be the same as the Water Fix intake design and has the same footprint. Design needs hydraulic analysis to show that an intake this long would work. CDFW also had concerns about not having the fundamental field studies. Components of previous project and drillings near the siting of the previous project is concerning. Ms. Des Jardins is concerned this process will continue the same way the previous project did. Internal engineering memos indicated facility configuration was largely decided before the EIR ever got to the Admin Draft stage of CEQA. She hopes there can be real input through process such as intake design and location because it has a huge impact on Delta communities.

c. Delta Conveyance System Overview, Introduction to Individual Features, and Introduction to Facility Siting Drivers

Ms. Mallon acknowledged that we are looking at a single tunnel conveyance project that would start somewhere in the northern part of the Delta with intakes and connect down to the southern part of the system of the State Water Project, as directed by the Governor. This is a proposed project at this point and no decisions have yet been made. Even if DCA staff doesn't say the word "proposed" at every reference, please remember it is still a proposed project with proposed facilities. The point of showing these renderings is to get a foundation of what the facilities are, how they function for the system and how big they might be, in order to facilitate more detailed discussions in the future. This is a conversation we can have without the NOP being out.

Ms. Mallon introduced Mr. Ryan, Engineering Manager, to talk to about the individual components of a conveyance system.

Ms. Martinez explained that SEC members have a workbook in front of them with a section called "Component Features" that contains all the renderings and information that accompany the discussion. There are also copies of the documents available for the public.

Mr. Ryan explained a water conveyance system would generally include certain components. Since this project has not yet been defined, DCA is unable to give specific details. The purpose of this presentation is to provide common information about what the component features of a conveyance system are. A high-level overview will be provided and then each component will be discussed so SEC members have a general understanding. The presentation is not specific to any proposed action.

Mr. Ryan presented an animation that provides an overview of a water conveyance system containing seven components: intakes, tunnel, Intermediate Forebay, Tunnel and Shafts (Launch & Retrieval), Pumping Plant, Southern Forebay and South Delta Conveyance Facilities (animation available at dcdca.org).

Stated very simply for illustrative purposes, water starts in Sierra Nevada and Cascade mountains in the north and flows into the river system. The federal project is mainly off the Sacramento River and Shasta Dam up in Redding and the State Water Project is mainly off the Feather River feeding into Oroville Dam. The Feather River flow comes into the Sacramento River. By the time water reaches the Delta, it is all in the Sacramento River system. This water flows south through the Delta into the state and federal pumps that are in the South Delta area. The proposed Delta Conveyance system would add a system to divert flow in North Delta and take it to same location as existing state pump, and possibly also the existing federal facility. Both of the existing state and federal facilities would stay in place. Water would flow to them and the new facility, subject to a variety of operational rules.

The first facility depicted in the animation is the intake. The intake animation shown is from the last project; it is provided for illustration purposes only. Water flows out of river, through fish screens at the intakes, through the sedimentation basins that will take the sediment out, through control gates, and then enters the tunnel. There will potentially be two or more intakes, each with a tunnel that would come together in an intermediate forebay. The intermediate forebay is a wide spot in the line that is needed to account for the slight difference in operation between intakes and pumps.

Mr. Ryan explained that the project consists of a single tunnel and showed an animation of how the tunnel might be constructed. The tunnel would start with a shaft tunnel boring machine would be used to construct the tunnel. The tunnel is basically a big pipe pretty deep underground. Additional detail will be provided momentarily. The tunnel would lead down to a pump station in the South Delta in the vicinity near existing facilities. The pump station would then lift the flow out of the tunnel and into the Southern Forebay.

Ms. Swenson asked for an explanation about the information shown in the animation in regards to the pump operation when the river is high.

Mr. Ryan explained that there may be cases because of the elevation, that when the river is high, pumps may not be needed and water can flow via gravity through the tunnel and into the Southern Forebay. Whether gravity or the pumps are used, it accomplishes same thing. If pumps aren't needed, it saves some energy.

The Southern Forebay is the next feature in the conveyance system. The flows in the Delta could be 24/7, whereas the State Water Project mainly pumps 12 hrs./day on the off-peak energy period. The Southern forebay would function as a balancing reservoir since the flow rates between the intakes and the pumping stations are different. It is a relatively large reservoir to account to the amount of water that needs to be accommodated.

From the Southern Forebay, a connecting facility will be needed to tie in from where the water is stored to the state canal that feeds the state pumps, and possibly the federal pumps. There is no footprint for that yet because details are not yet known.

In summary, the system would integrate those seven components (intakes, tunnel, Intermediate Forebay, Tunnel and Shafts (Launch & Retrieval), Pumping Plant, Southern Forebay and South Delta Conveyance Facilities) to provide a reliable water supply for the State Water Project, ensuring flood resiliency and seismic resiliency.

Mr. Ryan then reviewed each of the seven components one by one. Ms. Palmer asked for any detailed questions to be held until the end of the presentation.

Mr. Ryan explained that intakes divert water from the Sacramento River with fish screens to protect fish from getting pulled into the tunnel. They also act as flood control facilities. Delta residents know water can range from blue to dark brown. The brown is because of the sediment in the water. The sediment can't be screened out; it would go through fish screens. The sediment has to be captured and settled immediately, preventing it from being dispersed in the tunnel system. Therefore, the intake facility will feature the ability to capture sediment at the source. If intakes are sited in an area with a flood control levee, that is a key feature that must be preserved in facility design.

The conceptual site plan shown is the visual shown for the previous project, but please remember all renderings and drawings are provided for illustration purposes only. This is an idealized site, but details will vary depending on where the intake site is ultimately placed. In general, the intake facility would include screens along the river, an area for the sedimentation basins and the ability to remove the sediment. Roughly 115-120 acres total would be needed at each intake site.

The Intermediate Forebay feature was reviewed. The purpose of the Intermediate Forebay is to balance the flow between the intakes and the Pumping Plant. It is a fairly large site that will require approximately 250 acres. If the Intermediate Forebay is used as tunnel drive site, the tunnel construction area would be in addition to that amount of space. Mr. Ryan demonstrated on the illustration where the area for tunnel construction would be.

Ms. Mann asked if there would be a temporary construction easement. Mr. Ryan is not sure of the property particulars in that regard, but indicated it would be a temporary disturbance.

Ms. Swenson asked what is meant by temporary in terms of years. Mr. Ryan responded that will depend on a number of factors including the tunnel length. Ms. Swenson said 10 years doesn't feel very temporary. During the last project, "temporary" meant 13-15 years.

Ms. Palmer took a moment to explain that the information in the SEC member binders (and the public packet) includes explanatory notes with more information about each of the component features Mr. Ryan is discussing. SEC members were encouraged to take time between meetings to read the information provided.

Ms. Mallon said she appreciates Ms. Swenson's point about the length of the construction period. Temporary means it is there during the period of construction and is not there after the project is completed. Some features could end up being permanent and those details will be discussed in future meetings.

Mr. Ryan explained that tunnels have vertical shafts to get down to depths where tunnel would be built. A Tunnel Boring Machine (TBM) would be lowered down into a Tunnel Launch Shaft. The TBM is a very big piece of equipment with all kinds of trailing gear and supporting features. As it is pushed in and starts to lay the segments, all the equipment goes in behind it. The key to the Launch Shaft is that this is where all segments, workers and the TBM itself goes in. It is also where the Reusable Tunnel Material (RTM) comes out. Therefore, a lot of activity takes place at this facility. There are storage facilities for the tunnel segments, batch plants, site offices and potentially an RTM storage area. It has not yet been decided where exactly the various parts would be located at the facility. They will be located within the vicinity of the facility which will be potentially 450 acres. As a reminder, the size needed will depend on how long the drives are and other factors.

Ms. Swenson said there would basically be 450 acres of tunnel muck. Mr. Ryan said tunnel muck would not be the entire 450 acres. There would be a large tunnel segment yard for several months-worth of segments hauled to the site in advance. Segments will be explained in an upcoming part of the presentation.

Ms. Swenson said she is more worried about the muck piles. What happens to that material?

Ms. Mallon said that RTM will be a topic of discussion in a future meeting. DCA will provide volumes and SEC members can provide input on what could be done with the RTM. This is a topic where SEC members can provide a lot of feedback.

Mr. Ryan showed an animation of a TBM to demonstrate how the process works. There is a cutter head at the face of the machine that digs the soil. TBMs are all different, but in this particular animation, the soil comes through the cutter head and drops into an auger that brings the soil up and deposits it onto a conveyor belt. The material is then moved out in the opposite direction that the tunnel is being bored. Once a section of the tunnel has been bored, the rams of the machine pull back so a segment can be laid, and then the TBM pushes ahead again to continue boring. The soil can be moved out of the tunnel by conveyor belt, train, or other methods. The animation shows a conveyor belt, but there are various carrying features that could be used.

Ms. Swenson asked what is the diameter of the tunnel. Mr. Ryan answered that the size is not yet known. The animation does not indicate our particular project, but is meant to just show how the process works.

Ms. Palmer added that we don't know how big this project's tunnel will be yet.

Ms. Martinez reminded that there is no project description yet because the NOP has not been released.

Ms. Mallon said the animation shows a tunnel similar in size to something we might need for this project. It is representative of what will be happening during this project's process. Mr. Ryan indicated this is the type of technology that would be used. Ms. Mallon provided for reference that this animation probably shows a diameter of approximately 50 feet.

Mr. Wallace remarked that the sandscrew in the TBM shown in the animation appears to be for dry material. How will water be handled since the Delta material will be saturated from a couple feet below the surface to the invert?

Ms. Mallon said in future sessions, the committee will be having detailed discussions about tunneling. It would be helpful to hold detailed questions until later discussions. The purpose of this meeting's discussion is to set the stage of what type of operation will be happening and what it might look like, but details like those raised by Mr. Wallace will definitely be covered in future sessions.

Mr. Ryan added that the soil removal process shown in the video might be different in different tunneling conditions.

Ms. Swenson commented that fuel stations are missing from the packets. It is known that places in the Delta will be needed for fuel. Explicit details are requested for what those fuel stations will look like, whether they will be temporary or permanent, if they will be underground or above-ground tanks, their proximity to schools and people, what safety operations are going to be used to ensure against contamination, and so forth.

Ms. Palmer indicated for purposes of this discussion we will proceed through explaining the information that has been provided, but Ms. Swenson has a good point.

Mr. Ryan reviewed retrieval shafts. This component feature is similar to the launch shaft site except without the supporting infrastructure around it. The retrieval shaft is at the end of the tunnel where the machine is pulled out. The shaft in many cases might be left as a vent on the system or closed and filled. These shaft sites are much smaller at only about 4 acres with fill required to keep it high enough for flood levels.

A Pumping Plant facility was reviewed by Mr. Ryan. The purpose of the pumping plant is to lift water from the tunnel into Southern Forebay. This is where water gets to the point where it can merge with state and potentially the federal project in the south Delta. The tunnel would be at the north end of the Pumping Plant. The construction area for the Pumping Plant is about 25 acres. It is encapsulated in the Southern Forebay site.

Mr. Ryan then reviewed the Southern Forebay. The intakes pump 24/7 with some variation depending on water levels. The State Water Project, however, only pumps 12 hours per day. Therefore, there is a need to store 12 hours of water a day in order to feed the state project for their 12-hour pumping period. At the flows needed, a fairly large area is required. The Southern Forebay is the balance needed for daily storage. Mr. Ryan noted the State Water Project works that way, as well. The area needed for the Southern Forebay is about 1100 acres, which includes construction area for the Pumping Plant and the other structures.

Mr. Gloski asked if the Southern Forebay would connect to the existing forebay. Mr. Ryan explained it would not. The Delta Conveyance system would be fish free water, so connection would be downstream of fish facilities.

Mr. Ryan then discussed the South Delta interconnection conveyance to existing pumping plants. As mentioned in the overview, facilities have not been designed for the connecting

features, but some type of tunnels or conveyance would connect from the Southern Forebay and into the existing state canal and, if the federal project is included, would cross over into the federal canal as well.

Ms. Mann asked if the white line on the Southern Forebay illustration depicts Highway 4 that goes through Byron. Mr. Ryan clarified that is not Highway 4.

Ms. Palmer said we can't get too specific about maps; this discussion is to show general components.

Ms. Mann asked about possible placement for the pumping plant, and Ms. Palmer responded we don't know yet.

Mr. Ryan next explained Temporary Batch Plants. There are all kinds of cementitious materials at the component facilities used for construction. There are also cementitious materials used for ground improvement and potentially other forms of concrete that are used for some of the structures or their foundations. Each facility may have a temporary batch plant at the site. This is typical of construction projects. They consist of a few office buildings, labs for soil testing, piles of sand and aggregate, and storage for cement.

Ms. Swenson asked for an example of ground improvement materials. Mr. Finney said it could be deep mechanical mixing with cement into native soil for strengthening purposes.

Ms. Mallon raised the point that there are two ways to bring concrete to a job site: it can be trucked from a ready-mix facility or it is made on-site to reduce the amount of trucking. Those are all things that will be discussed with the SEC, but DCA staff wanted to mention that these could potentially be a feature in this project.

Ms. Swenson asked if the SEC will have specific discussions about batch plants and air quality, and Ms. Mallon confirmed.

Mr. Ryan reviewed reusable tunnel material (RTM) information. Soil is excavated from boring of the tunnels and the shafts. RTM will be provided at the launch site and stored until it is removed. It is not yet determined where it will be relocated to, but it is a key feature that needs to be considered as the project is considered.

Ms. Mallon said that anyone who likes math can calculate the tunnel length and width to determine how much RTM will be generated; it is a substantial amount. What is done with RTM, how it is handled and managed will be a discussion DCA is very interested in having with the SEC.

Ms. Martinez reminded that this meeting's discussion is conceptual. This discussion is about a system located somewhere within the area, but no alignments have been identified at this point. There will be more details on the specifics of each component as the process moves forward. It is understandable that there will be a desire to know things that are simply not known yet. DCA is not trying to hide the ball; we don't have the ball yet. The purpose of tonight's discussion is to ensure there is a general understanding of what components would

be needed and how they may appear so that once the NOP has been released, we can overlay this knowledge with the project.

Ms. Palmer encouraged members to read through the materials provided before the next meeting. Please do not ask specific questions about siting; those details are not yet known.

Ms. Barrigan Parrilla asked if DWR is still in negotiations with the Central Valley Project in regards to whether the NOP will become an NOI. Ms. Buckman did not have an update to provide.

Ms. Barrigan Parrilla requested that soil testing results mentioned in Mr. Ryan's presentation be made public in real-time. It would be helpful for the public to watch how construction moves. Mr. Ryan clarified that the test lab showed in the illustration was for concrete, not soil.

Ms. Barrigan Parrilla said she is glad DCA staff is out doing things in the Delta. There has been discussion about a full Environmental Justice tour in Stockton and San Joaquin county. DCA and DWR representatives are invited to that tour, which is robust and takes approximately 4-6 hours. Ms. Mallon and Ms. Palmer responded they would like that.

Mr. Wallace said the Sacramento River was earlier characterized as sometimes blue and sometimes not. To Delta residents, the river would never be characterized as blue. The suspended sediment is always in the river. The water is always either green or brown.

Mr. Hsia asked where Clifton Forebay gets its water. Mr. Ryan explained that, at a very high level, Clifton Forebay water comes from Oroville Dam after the water runs out of the mountains. Mr. Hsia said his understanding is that the Clifton Forebay gets water from the San Joaquin River. Why didn't Clifton Forebay take water from the Sacramento River in the first place?

Ms. Palmer said that question is beyond scope of this presentation.

Ms. Whaley asked if DWR has any plans to do any levee maintenance in regards to the intakes and flood protection.

Ms. Buckman said because there isn't a project yet, DWR hasn't gotten that far. This discussion will come up later in the process.

Mr. Moran asked if it is yet known what the water level of the storage reservoirs would be in relationship to the river or the land.

Mr. Ryan responded that specifics are not known yet.

Ms. Mallon offered that we do have general ideas. The Intermediate Forebay will be close to river elevation because the river flow will be informing that reservoir. The Southern Forebay is pumped up, and it may be close to the same water elevation as Clifton or a little higher. All of these details are subject to calculations and what the project ends up looking like.

Ms. Palmer recessed the meeting for a 10-minute break.

Ms. Palmer resumed the meeting. There have been a lot of issues that DCA indicates will be discussed at a later point. It would be helpful to have a "parking lot" to record those issues and track when they are addressed.

Ms. Martinez reminded SEC members there are index cards at their places to record notes for topics they would like to discuss at a future meeting. Members are encouraged to write those topics on the index cards and submit them to Jasmine Runquist. The minutes can also contain a list of issues raised. DCA is interested in making sure we address everyone's concerns and ensuring no one feels put off. At this point, there is a lot that can't be answered because we don't have an NOP.

Ms. Palmer said the next topic of discussion will be the key siting drivers.

Ms. Mallon explained that this discussion will involve reviewing a series of maps. It may be helpful for members to refer to the maps that are included in their packets rather than trying to see the maps that are set up around the room. This discussion will walk SEC members through some of the issues that DCA engineers think about in considering where facilities will go. These maps do not reflect all the considerations, but can be thought of as perhaps the top ten. If there is other mapping information that would be helpful to SEC members, please let us know. If data is available, DCA will provide maps that show it. Please consider these maps not as the end, but as the beginning.

Ms. Mallon introduced Ms. Buchholz, who the DCA staff refers to as the walking encyclopedia of Delta GIS knowledge and environmental planning.

Ms. Martinez reminded SEC members that the maps are in their binders so they can follow along. There are 8.5 x 11 size in the binder and there are also 11 x 17 versions in the back pocket. Ms. Palmer reminded that there are also explanatory notes provided.

Ms. Buchholz reiterated that the maps represent only the first ten considerations for today, but there are many more. There are ten different maps set up around room, 8.5 x 11 sized-maps are with the fact sheets in the binders and in the back pocket of the binders are 11 x 17 versions. There is also one easel for the maps at the front of the room for the camera to focus on one at a time during the discussion.

Map 1 represents the Study Area. This map shows the legal Delta boundary, although analysis is not constrained to that area. This is the area where we know generally water will be flowing from north to south. In the PowerPoint Presentation the right side of the slide shows the list of facilities that Mr. Ryan just discussed. Check marks next to those facilities indicate they will be affected by this siting driver, or factor. Obviously, all facilities will be affected by the study area because all facilities will be located within it. This map helps orient SEC members to the overall discussion and how the presentation is arranged.

Ms. Buchholz introduced Mr. Finney, Geotechnical Engineer, to discuss Map 2, Soil Compressibility. Mr. Finney explained that the facilities affected are the surface features, not so much the tunnel. The Delta is underlain by buried channels and marsh deposits. Some deposits are highly compressible and subject to potential liquefaction during an earthquake,

which is a loss of strength. The darker green area on the map represents relatively competent soil, known as old alluvium. The lighter green is the moderately compressible soil and the yellow areas are relatively thick sequences of peat and organic deposits. In regards to siting, the ideal situation would be to avoid these areas for surface construction, but realizing the project has to go from the North Delta to the South Delta, that may not be possible. Soil strengthening is an engineering approach that could be considered to reduce the potential for compressibility.

Another key driver related to underground issues is oil and gas wells, depicted on Map 3. This driver affects below grade tunnels. Delta is home to lots of oil and gas exploration. There are historic and current wells that are documented relatively well in the state database. As seen on the map, there are gas fields, particularly one around Thornton and quite a few more on the west side of the Delta. If there are steel casings related to the well, that could obstruct tunnel boring and present a safety hazard to the tunneling. The idea is to avoid known wells and major gas producing regions or fields if possible. Prior to any construction, there will also be other steps taken to identify wells that are not currently mapped or well documented.

Mr. Finney introduced Mr. Lorenzen to discuss logistics during construction.

Ms. Swenson asked where the data from Map 2 (Soil Compressibility) came from. Mr. Finney explained it is primarily from geologic mapping, including existing maps of the Delta and review of historic data and project data. The map is by no means definitive, but it is a starting point.

Ms. Palmer asked if it reflects some USGS data, and Mr. Finney answered that it does.

Ms. Swenson remarked that she is surprised because typically complete views have not been provided; this is amazing. What are the soil strengthening approaches that were mentioned? Mr. Finney explained there are multiple ways the potential for consolidation of soils might be reduced, including methods that introduce cementitious materials, jet grouting or stone columns. There are a number of ways that geotechnical engineers can enhance the soil to reduce the potential for settlement or liquefaction.

Ms. Barrigan Parrilla requested that toxicity from soil strengthening, potential spread and impact on sloughs be added to the list for future discussion.

Mr. Lorenzen explained that logistics are an important part of the discussion for any project. Maps 4 and 5 depict access routes. This project will look at all potential access routes for workers, materials and equipment to be transported to and from sites. The existing network will be evaluated. Today we will discuss railroads and barges. Ultimately roads will be evaluated as well.

The power supply is also considered, Map 6. The tunnel launch shafts need temporary power to run the tunnel boring machine. That power will be brought in for the length of the project and removed if not necessary for local entities. Intakes and the Pumping Plant need permanent power. If there are control structures at the Intermediate Forebay, power would also be needed there.

Ms. Mann asked if the project would be using something other than Pacific Gas & Electric (PG&E). Mr. Lorenzen responded that SMUD would likely be used in the north, PG&E would likely be used in the central Delta, and WAPA would likely be used in the south. Some construction sites would run on generators depending on the need and the balance of installing power lines as opposed to running on generators.

Ms. Mallon asked Mr. Lorenzen to back up and take more time on Maps 4 & 5, regarding access routes.

Mr. Lorenzen explained Map 5, barges. Engineers have looked at existing barge routes and talked to barge operators in the Delta to identify good routes. The gold on the map represents the good routes according to the depth and width of the river. The red represents spots that are possible but challenging to reach. If it is not colored on the map, it doesn't seem feasible to take barges there for a construction project.

Ms. Swenson noted for a parking lot discussion a map that depicts an interaction with the bridges.

Ms. Mann asked how many times a day it is anticipated that barges would be going through. Mr. Lorenzen indicated the discussion is not yet at that point. Truck trips depend on if barges make sense for accessing a site. That won't be known until sites have been identified.

Ms. Mallon explained that if great barging spots are located, those spots could be a good place to get materials through. The areas where a lot of materials are needed include the launch shafts, which include all the RTM generated and the tunnel liner pieces. As committee members are looking at maps and considering good places to put facilities, remember a good barge landing alleviates road traffic. As the maps illustrate, there are a limited number of sites that are reachable through barges. Think of railroads and barges as ways to alleviate road traffic, but every site needs to be accessible by road. No single type of access route can be relied on exclusively. Barges and railways should be considered as bonuses to lessen construction traffic off of the roads.

Ms. Mann mentioned that Highway 4 traffic needs to be considered closely around Byron and Discovery Bay. If it is opened up more than once or twice during commute time, there are going to be a lot of angry people from Stockton as well as the other direction. Mr. Finney noted the concern and added it is the same for Highway 12.

Mr. Cosio noted that the barge routes are all flood ways during the winter and barge usage needs to take into consideration how the levees and the Sacramento Flood Control Project will be impacted. The Sacramento Flood Control Project was designed very narrowly to wash out the dredge tailings. Any impediment in the river during a flood is going to accelerate and possibly raise the flows. Most likely it will cause more seepage. Acceleration of flow will scour the channel bottom. Any raises will require levee raises. Getting barges up to the area along the Mokelumne River during the winter is very difficult. The channels in the north are narrow and carry about 2/3 of the flood flow; levees will be impacted. The levees only have about a foot of freeboard during the 100-year flood, which is only two inches higher than the 50-year flood. There is a very narrow band of opportunity, so we need to be very careful about what we stick in the water there.

Ms. Mallon said the knowledge Mr. Cosio shared is a demonstration of why he is an ex-officio member of the SEC.

Ms. Barrigan Parrilla noted a discussion to park is analysis on air quality around Port of Stockton from increased barge and train traffic. Stockton has the fourth highest rate of asthma in the United States right now.

Mr. Lorenzen reiterated that the information came from barge operators in the Delta and the engineers that do work there.

Moving to Map 4, BFSS and USRR are rail companies that service the area mainly as freight tracks. DCA is looking at those and also at the potential of creating new rail yards in places to take pressure off roads and rivers. DCA is looking at all options to get materials into the sites.

Ms. Buchholz explained DCA is looking at the data a little bit differently since DWR has not yet identified a potential alignment. All of the data on the maps here as well as additional maps are being looked at to see if there are particular areas that have high levels of complexity or benefits in regards to construction or operation. DCA can overlay these different issues and provide information back to the DWR so they can define the project for the CEQA process. DCA has been working for a while finding info in the public arena from federal and state agencies. Barge information was more difficult to find, so Mr. Lorenzen actually talked to barge operators. If there are other pieces of information DCA can incorporate, please let us know. For example, SEC members may have been involved in a project for which geotechnical borings were performed. DCA would be grateful to accept that information and incorporate it into their database with the appropriate references and permission.

Ms. Buchholz explained Map 7, Land Use. Over 60% of the Delta is agriculture. The colors on the map that are not agriculture are the blue for water, orange for native vegetation and grey for urban areas. Over 20% of the legal Delta is water, riparian corridors or native vegetation. The goal is to minimize the convergence of land uses, especially in agriculture. DCA is very aware of the concerns with Delta Protection Commission land use and resource management plans and wants to maintain the communities and economics of the Delta.

Map 8, Sensitive Receptors, reflects areas where people are more susceptible to effects during construction or operation such as air quality, dust, noise, pollution or sometimes light. Sensitive receptors typically include medical facilities, senior care facilities, libraries, school and recreation areas. The map depicts hospitals with blue H marks, schools with red flags and recreation areas with orange crosses. These facilities are concentrated in the urban areas with the recreation areas throughout the Delta legacy areas. The access routes to these locations have also been mapped. DCA has also looked at areas of first responders that aren't considered sensitive receptors but are geographically based.

Ms. Whaley asked when this mapping was conducted. Ms. Buchholz answered that the data was compiled about two months ago using data from the counties, Delta Protection Commission reports and Delta Stewardship Council Reports. That data was cross-checked with the websites for each school district. The recreation information was mostly from Delta Protection Commission and the Delta Stewardship Council.

Mr. Cox asked where the data on the Land Use (Map 7) came from. Ms. Buchholz indicated it is from DWR. The DWR pulls together satellite data every few years. Mr. Cox said some of the information is not very accurate and should be verified. There are people who own properties that are not identified accurately on this map. Ms. Buchholz indicated DCA has not yet ground-truthed this data yet.

Mr. Cosio added that this is the one thing DCA must get right. When landowners look at their property and realize DCA has no idea who they are because their land is not characterized properly, credibility suffers.

Ms. Keegan made a point in regards to sensitive receptors. When considering marinas, fishing areas and camp sites, it's important to note that these points do not exist in isolation. For example, recreational boaters need to get in and out of the marina. A dynamic analysis is needed to figure out how all these pieces fit together.

Ms. Barrigan Parrilla said there is definitely recreation data missing from the maps in places, particularly in urban areas. Also, a map of historical sites, cultural sites and Native American sites is crucial. Ms. Buchholz agreed and indicated those maps were not among the ones brought in today because they have not been completed to a point that she felt comfortable presenting them yet.

Ms. Tayaba said the historical sites map is going to be very important but will also need to be confidential.

Dr. Lytle said perhaps because he is partially colorblind, but the urban areas on the land use map are represented with light grey, which nearly seems to disappear compared to the contrast of the agricultural community. There are a million people in the perimeter of the Delta in the secondary zone. The urban population needs to be a focus. While it is important to have the agricultural land defined, the urban ring of the Delta cannot be discounted.

Ms. Parvizi said DCA has been trying to accommodate those who are colorblind and it is a work in progress. We are taking ADA accessibility into account for all materials.

Mr. Gloski asked what the next iteration of some of these maps might look like? How can SEC members help guide you? For example, there is a school missing from the map and lots of recreational facilities that are not identified. Would you like SEC members to give you that information?

Ms. Buchholz welcomed any information and input the SEC members can provide.

Mr. Moran asked what constitutes a recreation structure. Ms. Buchholz explained the engineers first went through Delta Stewardship Council and Delta Protection Commission documents to identify places designated as recreation areas and also identified state parks.

Ms. Palmer noted that Mr. Moran might have input on this topic.

Mr. Moran said having a definition would be helpful to ensure the right types of features are identified.

Ms. Buchholz reiterated that access to those sites is also taken into consideration.

Ms. Martinez reminded the group that time is running out. Ms. Palmer noted that the roundtable is still upcoming on the agenda, but the extensive input in this portion of the meeting could be considered as part of that roundtable discussion if the members are in agreement.

Ms. Buchholz reviewed Map 9, Greater Sandhill Cranes. The Greater Sandhill Crane is an interesting species that is protected at the state and federal level. Because the species is considered fully protected under the California Fish and Game Code, incidental take permits are not allowed. They have a high level of protection, especially from mortality. The Greater Sandhill Crane is very much part of the Delta habitat. The Greater Sandhill Crane comes to the Delta in September to February to forage, mate and roost seasonally. They then return to areas further north in California and into Oregon to rear their young. The map shows greyish areas that are the overall habitat and occurrences of where Greater Sandhill Crane have been seen. The dark purple is where they winter, forage, mate and roost seasonally, year after year. The pink-colored areas on the map are what the agencies call temporary areas, meaning the Greater Sandhill Cranes come there some years and not others. These areas are basically in watersheds coming off of the Cosumnes, Mokelumne and Calaveras Rivers. The watersheds push them in north and central Delta, north of Highway 4. It is going to be an issue wherever we have facilities, but is it less of an issue in South Delta. That is why siting of the Southern Forebay and Pumping Plant facilities is not marked as being affected by the Greater Sandhill Crane.

Ms. Buchholz introduced Mr. Ryan to discuss Map 10, River Geomorphology. Mr. Ryan explained River Geomorphology is a key issue, but it is specific only to the intakes. Only sections of the river that have suitable characteristics consistent with regulatory guidelines such as those related to the depth stability of the river, can be considered. Map 10 depicts the river's bathymetry— it is a topographical map of bottom of the river underwater. The dark areas depict where the water is deeper, while the light areas indicate the water is shallower. The exercise is to evaluate the river beginning from Sacramento to near about Courtland and look for places that meet two major criteria: they have to be deep enough and long enough. Remember that intakes are fairly long. Even though there may be a deep area along a certain portion of the river, the section also needs to be long and relatively straight. If there is a bend in the river and an intake cuts too far into the river there, it could end up affecting flood levels. Therefore, it is important to find a place that is generally straight along the side of the river. Mr. Ryan noted that there are places along the river that fit this description, but those locations have existing towns in some cases, such as the town of Hood. An intake can't really be placed atop an existing town. Mr. Ryan stressed he has studied the bathymetry maps extensively from downtown all the way to the south end of the river. There are several years-worth of bathymetry that also help determine which areas of the river are stable.

Ms. Buchholz explained the summary chart in the presentation summarizes which facilities are affected by which siting drivers.

Ms. Palmer asked if there were any questions from the SEC members.

Mr. Wallace asked if there is siting information available for burrow pits.

Ms. Mallon said that when we start talking about moving material in a future meeting, one of the things we'll talk about is burrow material, where you might be able to get it and how you get it to sites, versus using RTM and how that plays into where things go. DCA will bring map in a map to the next meeting showing where burrow sites are. It is definitely under consideration.

Mr. Gloski asked what length of shoreline is needed for intake. Mr. Ryan said it ranged from around 1,000 feet to 1,600 feet on the old project, but the length has not been calculated yet for this project. It also depends on where you are on the river.

Ms. Mallon noted those were all 3,000 CFS (cubic feet/second) intakes on the old project. Basically, the shallower the water, the longer the intake; the deeper the water the shorter the intake to get that same surface area.

Ms. Mann said she knows it is all hypothetical at this point and she don't understand the CFS, but if a boater falls into the water, will they be able to swim their way out, or will it be like Clifton Bay where you can feel yourself being pulled in? Even the pumps that farmers use to irrigate can create a pull; a water skier recently lost his life because he couldn't swim out of the pull. To what extent is safety anticipated? What would the water usage of that area be? Would the intake be a no ski zone or a no wake zone? Mr. Ryan explained that intake pull is one of the most highly regulated things we deal with on project. The pull has to be so minimal that the 2-inch Delta smelt isn't pulled, therefore people would not be pulled. Water will be diverted at .2 ft/second. The river flows at about 3-4 ft/second in summer and flood zone might be around 7 ft/second. This is why sedimentation is an issue in the Delta, is because the river is flowing very fast. When it is pulled into the intakes slowly, sediment falls to the floor immediately.

Ms. Palmer summarized that the intakes are so long so that there isn't a pull on anything or anybody.

Ms. Palmer opened public comment.

Ms. Terry complimented the presentation and noted that the animations were great. Mr. Ryan did a fantastic job explaining for those who are not engineers. She enjoyed it so much she may come back to more meetings. Ms. Terry said she was on the BDCP steering committee, and will repeat to this engineering group what she said to them: size matters. The largest intake she is aware of is north of the Delta, RD 1500, has a 1,000 CFS intake. Urban intakes are all 300 CFS or less. Size does matter because it could mean a mile of bank taken up by an intake and an industrial complex being built. A future topic for discussion should be the conveyor belts. They were planned across the islands and could be miles long. More information is also requested about how many construction sites will actually have pile driving going on, how close together they are, their duration and whether or not they are concurrent.

Ms. Des Jardin expressed that she appreciated the presentation. Clarification is requested on what the Sensitive Receptors map meant by recreational facility because the map is not consistent with maps of marinas in the Delta. Also, there is a major consideration if most of the materials at the depth of the tunnels is sand, silt or clay. It is likely to come out as slurry that has a large amount of water in it. There hasn't been talk about how drying ponds would work and what kind of facilities would be used.

Dan Whaley said it seems like DCA is asking for engineering advice from the general group when they haven't told us what the project is and yet we have all the pages of what the project is supposed to look like. If you use are reusing old data from DWR, things have changed. Traffic is completely different now than it was 10 years ago in the Delta. We have wine and grape production, Bogle Winery and traffic through the Delta due to Google Maps that we've never had before. Any studies utilized to come up with a project should be redone. Additionally, looking at the maps prepared already, if you did put a tunnel in, the smartest way to put it would be to go down I-5, not through the middle of the Delta. Mr. Whaley said it is his understanding that there are 50 engineers working on the project for DCA. That's $.5 million per month. They should be able to find alternatives. The pile drivers make a noise that is unbearable. If you tried to sit here in this room with a pile driver 100 yards away, you couldn't do it. There are alternatives; they are expensive but they need to be considered. If they're going to spend $10 or $20 billion and the project fails, it's going to be wasted money. DCA and DWR need to spend $10 million/year on maintaining the levees for the next 10 years. If they don't do that, they'll get into this project and the levees will fail and the project will fail because they won't be able to get to it.

Michael George, Delta Water Master, said he wanted to follow up on the comment from Mr. Cosio about the critical nature of the accuracy of the land use map. It appears the land use data set comes from information DWR has curated from a satellite imaging organization called Land IQ and it's from 2014. There are updates to this through 2019 that are currently in qa/qc. The most important thing is that the amount of detail gets down to a pixel of 30m x 30m so you can get into this database and find a specific field and identify the specific crop. Mr. George uses this data to determine the evapotranspiration of the crops at the field level. One of the issues going on in DCA's land use map is getting that level of data to this size (11 x 17) leaves out a lot of detail that is in the data set. But the dataset can be used just like you use Google Earth to focus right in on roads, diversion structures and even boats and water skiers. It is imperative to be able to talk to individual land owners and show them that your maps are accurate. The data is available at the gnat's eyelash level.

5. MEMBER ROUNDTABLE

Ms. Palmer asked Ms. Martinez to facilitate the Member Roundtable.

Ms. Martinez explained the purpose of the Member Roundtable is to create a little bit of looseness within the agenda for members to report out on outreach they've done, input they've received, community discussions they've had and other items relevant to the committee's scope. We are running low on time, but this is an important part of meeting. Everyone is trying to run the meeting so there is give and take during the discussions and that has been happening, which tends to extend the time a bit.

Mr. Merlo introduced himself as the Director of Education for the San Joaquin County Historical Museum and the at-large member for San Joaquin County. The topic of cultural resources in Delta was briefly broached earlier during the presentation. It was mentioned that the map of cultural resources was not brought to the committee today because DCA and DWR were uncomfortable with the amount of data. Mr. Merlo echoed that concern. After review of state and national databases for cultural resources in the Delta region, there is woefully inadequate data in respect to the ratio of recognized historical sites relative to the number of potential historical sites that could be listed if there was significant cultural or economic capital to recognize those historical sites not only in San Joaquin County but also in Sacramento and Contra Costa Counties; Solano County has not been evaluated thoroughly yet. Mr. Merlo stated he is uncomfortable with the tunnel in general, but in particular with this lack of data. Historical data from primary sources, primarily Spanish-language records from the Californio era as well as from the era of the Selma of the Delta and from oral histories suggest that there are large areas of Delta that were home to Delta Yokut and Valley Miwok peoples and villages; we have pretty good maps of where those villages were. Due to the extent of the native genocide in the Delta valley as well as the historic disenfranchisement of Native Americans, especially Yokut and Miwok peoples in California, we have very few cultural bodies that can organize to recognize those historical sites. An example of this is that there was a Native American village archeological site that was flooded in construction of the Clifton Court Forebay and the site was lost permanently. Mr. Merlo expressed hope that any planning considers the information about the history of settlement of Native peoples that is available from local museums and historical bodies in the Delta so that the history is preserved and respected.

Ms. Mallon asked if DCA could contact him to coordinate that effort. Mr. Merlo said DCA will be receiving a letter from his institution in a week.

Ms. Tayaba reported that she will be meeting with all of the Delta tribes in the next month to get an overall point of view of concerns from the leaders that are participating and can hopefully report their feedback at the next meeting.

Ms. Swenson noted that there has been a lot of discussion about an aggressive timeline, but questioned if it is necessary to move quickly or to slow down and do it right to ensure all the details are accurate. This is the third iteration of the process for many SEC members, and every time it's an aggressive timeline. Aggressive timelines lead to big mistakes, and integrity with the communities and with people who are directly affected is ruined. In no other project are you walking into people's neighborhoods and saying we're going to be here for the next 13 years; we're going to do this really, really fast but really, really well. Ms. Swenson strongly encouraged there not be an aggressive timeline but rather to slow down if there is a desire to do this well and do this right and in consideration of the experience of the SEC members. The project cannot be done both fast and well. The SEC has gotten more information tonight than ever before. She thoroughly thanked DCA for the information that she can take back to share and ask for input.

Ms. Martinez noted that the animations, presentation and handouts will also be on the website and a link will be sent to the committee.

Ms. Barrigan Parrilla asked for the DWR presentation as well. Ms. Martinez said that the entire presentation will be provided and will also be broken into smaller pieces for use by the committee members.

Ms. Palmer said that as the process moves forward, some of the maps will be updated so they reflect current data.

Ms. Parvizi announced that the materials provided today will be taken to libraries per the suggestion of Ms. Swenson. Thumb drives with the files were dropped off at 4-5 libraries today; a list of locations will be sent. If there are additional locations where the materials can be dropped off, please let us know. It is important to note that the materials that have been distributed to the libraries are subject to change, but the most updated files will be available on the website. Ms. Swenson thanked the DCA for doing that.

Mr. Cosio said when the NOP comes out, he would like to get specific about the barge loading locations. Barge operators may have indicated that you can maneuver through areas, but barges take up the whole channel and will take out any boats in the area. Also, farm grounds can't take any more compression. If there are facilities on top of the ground, a lot of farm land will be destroyed. Mr. Cosio provided an example of a farmer whose land was traversed for purposes of installing a gas line. Crops still will not grow in the path that the trucks travelled because the soil compressed. That leads to the issue of sustainability of the levees, because if the farmland is not productive, the levees cannot be maintained.

Dr. Lytle suggested that pre-existing intakes, diversion works and conveyance facilities be included on the study area map. East Bay MUD's aqueducts transverse the Delta, City of Stockton has discharge wastewater and intakes for water treatment as does City of Brentwood. Dr. Lytle would like to see existing facilities and infrastructure highlighted on one of the maps.

Mr. Merlo commented when the tunnel boring machine is drilling under river channels, there will potentially be mercury tailings from the Gold Rush in the sediment which would render the material unusable. The RTM should be tested before it is used.

Ms. Mallon reiterated that RTM (muck) is an upcoming topic, but she will ensure that the committee is given information on how the testing, drying, run-off and on-site management will work.

Ms. Barrigan Parilla mentioned a great body of research done by the Cal Water Impact Network regarding the native plant species around the Clifton Forebay that shows which plants are still used by tribes for traditional medicine practices. She suggested referencing that body of work in order to identify those plants for protection.

Ms. Keegan noted that SEC member Paul Clausen, the representative for California Recreational Boaters Association, was unable to attend this meeting. Staff should follow up with him regarding informational materials. He might be able to distribute materials to boating or yacht clubs and perhaps some of the marinas. Ms. Parvizi indicated staff will follow up with all SEC members who were unable to attend.

Ms. Mann expressed thanks again for the great presentations on the maps. There are all kinds of small and medium vessels on the waterways, in addition to the larger vessels. The recreational community adds a lot of economic drive for the Delta. If there is a potential that recreational users cannot be on the water when barges are operating, that amounts to inverse condemnation.

The waterways are supposed to be public, navigable waterways according to the US Coast Guard. That concern should be explored deeper.

Ms. Mann asked to whom map suggestions should be sent. Ms. Parvizi offered to be the collection point for the committee.

Ms. Martinez informed committee members that input is welcome by the engineers, so please submit to Ms. Parvizi.

Ms. Mallon asked Ms. Mann if it would it be helpful if DCA created an animation of what a barge stop and turnaround might look like.

Ms. Mann explained that lately barges have been travelling through the waterways to add more riprap to the levees. When the barges are operating, other boats have only about 25 ft. in which to operate.

Ms. Mallon asked what material would be helpful to Ms. Mann to address this issue.

Ms. Swenson commented that Ms. Mann should give DCA a video of the situation. Ms. Mann said she will ask some of the people in the recreational boating community to see what they can develop.

Mr. Gloski said it would be helpful to understand what DCA is expecting the rules of the waterways to be when those things happen and where the barges will be in relation to the other vessels on the waterways.

Ms. Swenson added that it should also be known how long the bridges have to be up and when. The information needs to also reflect round trips, not just single trips.

Ms. Mann noted that the Orwood railroad bridge is operated by the railroad. Neither boaters nor the bridge operator has a choice; when the bridge is locked down, the train gets the right-of-way.

Mr. Cox asked if Mr. Ryan would be available at future meetings.

Ms. Mallon said Mr. Ryan can be made available.

Ms. Swenson indicated she has suggestions written on the index cards that were provided and asked if members can keep their binders and add to them each meeting. Ms. Palmer and Ms. Martinez confirmed that is correct.

6. PUBLIC COMMENT – NON-AGENDA ITEMS

There were no public comments on non-agenda items.

7. FUTURE AGENDA ITEMS

Ms. Martinez stated again that there is no NOP yet. The goal of SEC meetings moving forward was to dig deeper. There are a couple of different ways we can proceed; it is the committee's

decision as to how. The next meeting is scheduled for January 8, but because of the holidays we are assuming the NOP will not be out by then. We can keep the January 8 meeting and dig deeper into existing information and discuss it on a conceptual level. Alternately, we could cancel the January 8 meeting and meet on January 22 to begin detailed discussions, assuming the NOP will be released by then.

Ms. Barrigan Parrilla indicated that December and January for the Delta is a rush of comments on every possible topic. Deferring to January 22 is the preference.

Ms. Martinez asked if other committee members concurred and explained we want to value member's time with substantive conversation. DCA staff is available to members in the meantime. As mentioned by Ms. Palmer, members are encouraged to read through the materials provided in the binders. Contact us; we welcome peer-to-peer conversations.

Ms. Palmer summarized that the committee will not meet on January 8. The meeting summary will come out on Friday. Members are encouraged to review it and contact us with any input. Hopefully some updated maps will be available soon as well.

8. ADJOURNMENT

Ms. Palmer adjourned the meeting at 6:15pm.

REQUESTS FOR MORE INFORMATION

- Who decides what a reasonable alternative is, what makes an alternative qualify as "reasonable" and to whom is the alternative deemed reasonable?
- Are you going to coordinate markers on each soil collection point so levee impacts can be tracked by RD's?
- Will there be real-time disclosure of existing issues discovered during soil testing or field work?
- What is the definition of "temporary" in terms of years?
- What constitutes a recreational facility in terms of representing sensitive receptors?
- Is there siting information available for burrow pits?
- Is there a map reflecting the history of settlement of Native peoples (Mr. Merlo offered to help coordinate data collection)?
- Is there a map reflecting existing water infrastructure and facilities such as intakes, diversion works and conveyance facilities?
- Will you be identifying and protecting native plant species around the Clifton Forebay used for tribal medicinal practices?
- What are the anticipated waterway rules and process when DCA construction barges are on the waterways?
- How long the bridges have to be up and when for DCA construction barges?
- What are round trip barge calculations?

TOPICS FOR FUTURE DISCUSSION

- Waterways safety and usage during construction barging
- Clarification about how DWR will reflect and characterize SEC participation in the EIR
- Features that could end up being permanent
- How the testing, drying, run-off and on-site management of reusable tunnel material will work
- Specifics of tunneling process, machinery used, material derived and its treatment
- Fuel stations aesthetics, whether they will be temporary or permanent, if they will be underground or above-ground tanks, their proximity to schools and people and what safety operations are going to be used to ensure against contamination

- Batch plants effects on air quality
- DWR plans for levee maintenance in regards to the intakes and flood protection
- Toxicity from soil strengthening, potential spread and impact on sloughs
- Map that depicts an interaction with the bridges
- Air quality around Port of Stockton from increased barge and train traffic
- Specific discussions about the barge loading locations
- How barges used by DCA during construction would affect the recreational activities in the waterways
- RTM testing, usage, drying, run-off and on-site management