CENTRAL DELTA WATER AGENCY
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February 15, 2012

Via Email to cwc@water.ca.gov; ssims@water.ca.gov; and rballant@water.ca.gov

California Water Commission
1416 Ninth Street
P.O. Box 942836
Sacramento, CA 94236-0001

Re: California Water Commission Meetings, February 15, 2012, Agenda Items 6 thru 25–Resolutions of Necessity.

Dear Chairperson Saracino and Commission Members:

Because the Central Delta Water Agency's ("CDWA") comments and concerns which it expressed in connection with the "first wave" of resolutions of necessity which the Water Commission ("Commission") adopted in November 15, 2011 apply equally to the instant "second wave" of resolutions of necessity which the Commission will consider at its February 15, 2012 meeting, the CDWA hereby incorporates those comments and concerns.

In particular, the CDWA hereby incorporates its comments and concerns which it previous raised orally at your September 21, 2011, October 19, 2011, November 16, 2011 and January 18, 2012 meetings, and in written comments to the Commission dated October 18, 2011 and November 15, 2011.

The CDWA will hereby supplement those comments and concerns with the following additional comments and concerns. For all the reasons previously expressed and set forth herein, the CDWA respectfully requests that the Commission refrain from approving any Resolutions of Necessity at this time.

The instant comments address the following three matters:

(1) Clarification of the quitclaim language in paragraph 10 of the proposed Resolutions of Necessity;
(2) Requested insertion of a new paragraph 11 in the Resolutions of Necessity to clarify the testing of hazardous wastes; and
(3) Objection on CEQA grounds that the Commission is impermissibly piecemealing its CEQA review of the various resolutions.

1. **The Quitclaim Language Should be Clarified.**

Paragraph 10 of the proposed Resolutions of Necessity states:

> "Within 120 days of completion of its geotechnical work on the property and at no cost to the landowner, the Department will quitclaim its permanent easement in favor of the landowner or otherwise abandon its attempt to acquire a permanent easement on the property."

(Emphasis added.)

The phrase "or otherwise abandon . . ." suggests there may be situations in which the permanent easement would not be quitclaimed.

Having reviewed the webcast of the Commission's November 16, 2011 meeting, at 1:28 through 1:36, it is very clear that the intent was to require DWR to abandon any and all permanent easements it has acquired automatically, with no if's, and's, or but's about it. However, DWR's attorney, John Feser, explained a situation where DWR could acquire a court order providing early possession of the property and authorize the drilling before DWR ever got around to formally acquiring or recording a permanent easement. Thus, Mr. Feser simply suggested that the wording in the resolution cover that situation. As Mr. Feser explained:

> FESER: "If we could just add 'quitclaim or otherwise abandon any interest, ownership interest,' just so we don't have any [pause], because we could get early possession and then we might not have any interests to quitclaim, so just to be clear, that additional language would take care of that particular problem."

Thus, the CDWA hereby recommends that section 10 of the Resolutions of Necessity be modified as follows such that the actual intent is crystal clear, and there is no ambiguity:

> "Within 120 days of completion of its geotechnical work on the property and at no cost to the landowner, the Department will quitclaim its permanent easement in favor of the landowner or, if no permanent easement has yet been acquired, the Department will ~~otherwise~~ abandon its attempt to acquire a permanent easement on the property."

(For good measure, attached hereto as Exhibit "A" are some additional excerpts and quotes from the Commission's November 16, 2011 hearing on this matter.)

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2. **The Extent of Hazardous Waste Testing Should be Clarified in the Resolutions of Necessity.**

The following is a transcript of an exchange that took place at the Commission's January 18, 2012 meeting regarding hazardous waste testing:

> COMMISSIONER SARACINO: "So you are not going out to each of these properties and testing for hazardous materials in every case, you're only testing for hazardous materials if you see some evidence that they may exist, is that correct?
>
> ALAN DAVIS (DWR): "That is correct."
>
> COMMISSIONER SARACINO: "Okay, that's helpful to know. Thank you."
>
> COMMISSIONER DELFINO: "Well, and just to follow-up, and that's clear in the documentation, because it seems like people are reading these documents in different ways so I just want to make sure, it is you have some kind of blanket statement in there that could be read different ways or if you are clear in what you've put into these documents that you are only testing if there is evidence."
>
> ALAN DAVIS (DWR): "All the documents that I've seen, it's clear to me."
>
> COMMISSIONER DELFINO: "Okay, so I guess what I would say, is if there are issues, you know with people having, putting this forward as an issue, I would actually like them to identify where it is so unclear for them."
>
> ALAN DAVIS (DWR): "Okay, I'll try to find those documents and provide them to the Commission."
>
> COMMISSIONER DELFINO: "Thank you."
>
> ALAN DAVIS (DWR): "You're welcome."

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a. **Suggested Hazardous Waste Testing Insertion into Resolution of Necessity.**

The CDWA suggests that the following paragraph be inserted as paragraph "11" in each of the Resolutions of Necessity to sufficiently clarify this matter:

> "11. DWR shall limit its laboratory testing of soil and water samples to the "Geotechnical Laboratory Testing Methods" and the "Special Laboratory Testing Methods" set forth in the "DHCCP Laboratory Testing Methods, Draft Revision 1, Dated: 6-24-11," except that DWR may also perform one or more of the "Environmental Laboratory testing methods" set forth therein in the event DWR observes on-site indicators in the immediate area of the geotechnical activities (e.g., dead vegetation, crusting, discolored soil, odors, etc.) that indicate the likely presence of above-threshold levels of the constituent or constituents which are the subjects of those testing methods."

b. **Examples of Ambiguous Statements re Hazardous Waste Testing in DWR's Various Documents.**

In response to Commissioner Delfino's request that any ambiguous statements from DWR regarding hazardous wastes be presented, the CDWA submits the following.

i. **Declaration of Richard Sanchez.**

In the "Declaration of Richard Sanchez in Support of Department of Water Resources' Request for Resolutions of Necessity" (a copy of which is attached hereto as Exhibit "B"), Mr. Sanchez states that "Hazardous Materials Testing is Necessary," yet gives no indication that such testing is in any manner limited to situations where there is evidence of potential contamination. For example, Mr. Sanchez states the following at paragraphs 20 through 22 on pages 6 and 7 of his declaration:

> "Hazardous Materials Testing Is Necessary.
>
> 20. The testing to be conducted on the soil samples removed from the properties would help identify the potential presence of the chemical substances. Any potential soil contamination must be considered in the early stage of project development as the discovery of hazardous materials can impact project alignment, schedule, increase project cost, and adversely impact the health and safety of workers.
>
> 21. DWR has conducted numerous drilling activities in the Delta. The results of recent lab testing (soil samples tested over the past three years) have not required any reporting action by DWR. Substances that have been tested have not exceeded the threshold limits established by regulatory departments of the California Environmental Protection Agency.

22. DWR will be responsible for the proper handling and disposal of materials that DWR removes from the property as part of the geotechnical investigation. Under state, federal, and local laws, parties responsible for any hazardous materials preexisting DWR's activities on the property may include current or prior owners, operators, generators, and transporters. Because DWR does not fall into any of these categories, DWR cannot accept responsibility for preexisting hazardous materials on the property, if any."

ii. **DWR's "Additional Information" Handout Dated November 16, 2011.**

In DWR's "Additional Information for the Commission on Delta Habitat Conservation and Conveyance Program Geologic Exploration Activities," dated November 16, 2011 (a copy of which is attached hereto as Exhibit "C"), DWR states the following on page 2:

"Hazardous Materials Testing Is Necessary.

- The testing to be conducted on the soil samples removed from the properties would help identify the presence of chemical substances. Any potential soil contamination must be considered because the discovery of hazardous materials can impact alignment selection, schedule, and increase costs. However, no testing ***for pesticides*** will be conducted unless there are indicators (dead vegetation, crusting, discolored soil, odors, etc.) in the immediate area.

- DWR will be responsible for the proper handling and disposal of materials that DWR removes from the property as part of the geotechnical investigation. Under state, federal, and local laws, parties responsible for any hazardous materials preexisting DWR's activities on the property may include current or prior owners, operators, generators, and transporters."

(Emphasis added.)

While this document states, "No testing ***for pesticides*** will be conducted unless there are indicators . . . in the immediate area," that statement is limited to "pesticides" and leaves it ambiguous to other potential hazardous wastes, e.g., total petroleum hyrdocarbons (gasoline, diesel and motor oil), heavy metals, methyle mercury, etc.?

iii. **DWR's "DHCCP Laboratory Testing Methods," Dated June 24, 2011.**

In DWR's "Laboratory Testing Methods, Delta Habitat Conservation & Conveyance Program," dated June 24, 2011 (a copy of which is attached hereto as Exhibit "D"), it states on page 1:

"1. Purposes and Methods of Laboratory Testing

DWR is currently engaged in a geotechnical investigation program to determine the subsurface material characteristics in terms of type of soils, classification, and strength and chemical properties of the materials. The main purpose of performing the laboratory tests is to provide supports for the preparation of EIR/EIS, help determine the mitigation measures if the potential impacts to the environment and community are identified, and provide input to the future design/engineering activities.

In order to better define its characteristics, the soil materials ***will be subject to laboratory tests***. The governing geotechnical laboratory testing methods are mostly from American Society for Testing and Materials (ASTM), CA Department of Transportation, etc. ***The environmental testing methods*** are from Environmental Protection Agency (EPA), California Administrative Manual (CAM), Code of Federal Regulations, California Test Method (CTM), etc. The specialty testing methods are from ASTM, Norwegian University of Science and Technology, etc."

(Emphasis added.)

There is once again nothing in the Laboratory Testing Methods that suggests DWR will only perform the environmental testing methods "if there are indicators . . . in the immediate area." Instead it states, as quoted above, "[T] soil materials will be subject to laboratory tests" including the so-called "environmental testing methods."

The "Laboratory Testing Methods . . ." goes on to provide the following description of what the so-called "environmental testing methods" will consist of on pages 2 and 3:

"3. Environmental Laboratory testing methods

The environmental testing methods for DHCCP can be grouped according to the sample type and testing purposes.

a. Soil and water samples: The test methods indicated below would help identify the potential presence of the chemical substances within the subsurface materials. The test results will help minimize worker exposure to unsuitable materials if detected, and identify the potential amount (and the related construction cost) of the unsuitable materials, if any, need to be disposed to support the construction planning, and address the related environmental impacts.

– Total petroleum hydrocarbons as gasoline, diesel and motor soil (TPH-G, D, MO) (EPA 8015 G/8015D/8015MO). The hazardous

substance definition as defined in CERCLA excludes petroleum, including crude oil or any fraction thereof. The contaminants of TPH are subject to a two-tiered evaluation and under different minimum laboratory reporting limit. The test results indicated so far no chemical Compounds relating to the petroleum hydrocarbons exceed the threshold limits.

– California Administrative Manual/California Code of Regulations Title 22 (CAM-17) listing of 17 metals, which include Ag, As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mo, Ni, Pb, Sb, Se, Tl, V, Zn. The test results indicate so far no chemical compounds exceed the threshold limits as defined by the Cal/EPA Department of Toxic Substances Control (DTSC). Section of 103 of CERCLA requires that DWR to report the findings of a release of a hazardous substance greater than the threshold limits (see attachment for excerpt of Paragraph 6626.24 of Unofficial California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 3). From the past three years of laboratory testing on collected samples, the findings indicated that the test results are well below the threshold limits and no action of reporting is required.

– Pesticide residues plus mercury determination (EPA SW8081A). The pesticide testing performed on soil sample is not aiming for any specific pesticide used by the property, but to find out what chemical residues from pesticides remain in the soils that would allow the planning for future worker exposure. Test results indicate so far no chemical residues exceed the threshold levels (see same attachment as noted above). It is therefore no further action of reporting is required.

b. Water samples: The tests methods indicated below would help determine the water characteristics in terms of its salinity, acidity and basicity, conductivity, and dissolved gases of methane, sulfides, oxygen, and Methyle Mercury. The test results will assist the EIR/EIS preparation and address any environmental and health and safety concerns, if any, for work to be performed in the confined areas.

- Total dissolved solids (EPA 160.1)
- Salinity (EPA Method 300.0)
- Conductivity (CTM 643)
- PH (CTM 643)
- Methane + CO2 (EPA RSK175)
- Dissolved sulfides (EPA SM4500 S2O)

- Dissolved O2 (EPA SM4500 OB)
- Methyle Mercury (EPA E1630 modified)"

iv. **DWR's "Delta Habitat Conservation and Conveyance Program Steps in Drilling and Soil Logging."**

DWR's so-called "Delta Habitat Conservation and Conveyance Program Steps in Drilling and Soil Logging, DHCCP Drilling and Soil Logging Steps, Draft Version 2," dated November 18, 2011 (a copy of which is attached hereto as Exhibit "E"), speaks to performing various environmental testing yet, once again, provides no indication that such testing is limited to situations where various indicators indicate the presence of potential environmental contaminants.

Some examples include the following statements:

> "[(D)(c)]viii. Based on the geology encountered and a predetermined depth interval, the field geologist may use a hydro-punch sampler to collect groundwater. . . . 4. 4. The groundwater from a hydro-punch is collected and sent to the laboratory for analysis; tests are usually methane and carbon dioxide but may include other environmental contaminants." (Section D,c,viii, at p. 3, emphasis added.)

> "[(G)]i. i. Environmental soil samples. i. Personnel collect these samples at shallow depths. ii. The drill crew inserts 6-inch-long brass liners into a Modified California sampler. iii. Geologists fill out the Chain of Custody (inventory) form for the samples and prepare the sample for delivery to the testing laboratory." (Section G,i., at p. 4, emphasis added.)

c. The Commission Is Impermissibly Piecemealing its CEQA Review of the Various Resolutions of Necessity.

Under CEQA a "'[p]roject' means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment . . . ." (Guidelines, § 15378, subd. (a), emphasis added.) As the court explains in Orinda Assn v. Board of Supervisors (1986) 182 Cal.App.3d 1145, at page 1171:

> A public agency is not permitted to subdivide a single project into smaller individual sub-projects in order to avoid the responsibility of considering the environmental impact of the project as a whole. "The requirements of CEQA, 'cannot be avoided by chopping up proposed projects into bite-size pieces which, individually considered, might be found to have no significant effect on the environment or to be only ministerial.' [Citation.]" [Citation].

To properly comply with CEQA the Commission cannot "subdivide" its proposed Resolutions of Necessity into two or more batches, as it has thus far done, and make separate determinations under CEQA, one for each separate batch in isolation of the other batch or batches. Instead, the Commission must considered all of the resolutions together and consider the potential environmental impacts and other CEQA considerations for the totally of those resolutions in one large all-encompassing batch.

The Commission is committing the fundamental "fallacy of division whereby a larger, whole project was improperly divided into component parts for piecemeal consideration [which is] clearly prejudicial because [the] decision-makers and the public were thereby deprived of the essential information and environmental analysis that CEQA mandates." (*Nelson v. County of Kern* (2010) 190 Cal.App.4th 252, 272.)

To correct this error, the Commission must set aside all of its prior Resolutions of Necessity and first consider the environmental impacts and other CEQA considerations for all of the proposed Resolutions of Necessity, together in one batch, that DWR is requesting the Commission to adopt that are associated with DWR's "Engineering Geotechnical Studies for the Bay Delta Conservation Plan and/or Preliminary Engineering Studies for the Delta Habitat Conservation and Conveyance Program," for which DWR, as lead agency, adopted a Mitigated Negative Declaration on September 23, 2010.

3. **Conclusion.**

For the foregoing and other concerns and objections previously raised by the CDWA and all other participants, it is respectfully requested that the Commission *refrain* from issuing any Resolutions of Necessity at this time and, revisit such issuance, if at all, after all of those concerns and objections have been duly addressed.

However, in the event the Commission elects to proceed notwithstanding those concerns and objections, it is respectfully requested that the Commission make the above-described clarification to the quitclaim language in the Resolutions of Necessity and add the above-described paragraph clarifying the hazardous waste testing to those resolutions.

Very truly yours,

Dante John Nomellini, Jr.
Attorney for the Central Delta Water Agency

Enclosures: (Exhibits A thru E)

Exhibit "A"

For good measure, here is how the hazardous waste testing matter was discussed by the Commission at the November 16, 2011 meeting from approximately 1:28 through 1:36:

This first part is <u>paraphrasing</u> what was said:

Commissioner Hintz: (Based on landowner Peter Stone's suggestion that the quitclaim be automatic), Commissioner Hintz asked whether it would be possible for the quitclaim to just automatically happen?

One of DWR's attorneys then said "yes," we can do that and eliminate the need for a request to quitclaim the easement from a landowner.

Commissioner Saracino then raised the question whether anyone could envision a situation where the landowner would not want the permanent easement to be quitclaimed.

Neither Commissioner Saracino nor anyone else expressed any such situation.

This second part contains <u>actual direct quotes</u>:

COMMISSIONER COGDIL, then stated: "I think it makes all the sense in the world to make it a requirement rather than to provide that option [i.e., provide the option for a landowner to choose to keep the permanent easement in place], DWR will have come in and done their necessary work, gotten the information that they needed, there is no longer any need for state to own that property and it will just cloud things as we move through time, so I think it should be mandatory that they do the quitclaim and the state is out of the picture.

COMMISSIONER SARACINO: "That certainly seems to make sense."

COMMISSIONER BYRNE: "Yeah, I agree, and I think we ought to just make it mandatory within 120 days, so they have 120 days to complete it, and then we might want to make, thinking like a lawyer, it might be upon written findings, or written representation by the department that the project is complete so there is some, so the Department affirmatively does something which then triggers the time period, so whether it's a letter or anything, nothing formal but something."

DWR ATTORNEY JOHN FESER stated: "If we could just add 'quitclaim or otherwise abandon any interest, ownership interest,' just so we don't have any, because we could get early possession and then we might not have any interests to quitclaim, so just to be clear, that additional language would take care of that particular problem."

Exhibit "B"

DECLARATION OF RICHARD SANCHEZ IN SUPPORT OF DEPARTMENT OF WATER RESOURCES' REQUEST FOR RESOLUTIONS OF NECESSITY

I, RICHARD SANCHEZ, make this declaration in support of the STATE OF CALIFORNIA, DEPARTMENT OF WATER RESOURCES' (DWR's) requests for adoption of Resolutions of Necessity before the California Water Commission. Upon information and belief, I attest to the matters contained in this Declaration and, if called as a witness, I could and would testify competently thereto.

1. I have been employed by the State of California and DWR for approximately 33 years as an engineer, and I am presently the Chief of the Division of Engineering and Executive Manager for the Delta Habitat Conservation and Conveyance Program (DHCCP). I oversee the program budget, schedule, engineering, real estate activities, including geotechnical investigations and feasibility cost estimates.

2. Several exhibits are attached to this Declaration and will be referred to herein by name. The exhibits are divided into sections for each agenda item and each section includes the following:

a. Geotechnical Exploration – This document provides general background on the method used to determine the best location for the drill holes. The table describes the reason the parcel at issue is necessary for the project, the type of exploration to be performed, the relevant proposed facility, the type of drilling for the proposed hole, and the depth of the proposed hole.

b. The Offer – This document consists of the cover letter, easement deed (including legal description), and map of the proposed acquisition.

c. Supplement to Staff Report: Negotiations Fact Sheet – This document includes Statistics (the total number of parcels to be acquired for the entire drilling project [59], the number of parcels acquired to date [2], the total number of owners [46], the number of

owners to settle to date [2]); a description of the proposed property rights to be acquired; parcel-specific information; a summary of DWR staff's prior contacts with the relevant owner; a description of the owner's remaining concerns; and an explanation of why an eminent domain action is required. The "Areas of Main Concern to Owner and DWR's Response" includes an explanation of how DWR addressed the owner's stated concerns.

Facts Supporting Finding No. 1:
The Public Interest and Necessity Require the Project for Engineering Geotechnical Studies.

3. DWR is conducting studies in support of the DHCCP and Bay Delta Conservation Plan (BDCP) and the near-term and long-term approaches to meeting the goals of protecting, restoring, and enhancing the ecosystem of the Sacramento-San Joaquin Delta ("the Delta") and providing a more reliable water supply for the State of California.

4. These studies are necessary to investigate and determine the best alternatives for Delta water conveyances and other conservation measures. The data gathered is required before some federal permits may be issued for the BDCP, if it is approved. Specifically, detailed geological data is required for the 404(b)(1) Alternatives Analysis appendix to the final EIR/EIS. Federal regulations require that before a project can be permitted, the potential environmental impacts and practicability of construction of the project must be compared with other alternatives to that project. Agencies will issue permits for a proposed project only if it is found to be the least environmentally damaging, practicable alternative that meets the project purpose.

5. Detailed geological data also is needed to provide information for future engineering studies required for permitting under the Rivers and Harbors Act Section 14 (33 U.S. § 408).

6. The geologic information is critical to developing the best preliminary engineering analysis and cost estimates to assist in alternative selection. The geological data will be used to evaluate the location of potential intake locations, which have been proposed mainly

because of their favorable hydraulic characteristics. An alternative will be selected based on the impacts analysis described in the EIR/EIS and associated preliminary engineering analyses. The better the analysis in the EIR/EIS and preliminary engineering analyses, the better positioned the decision-maker is to review and decide project elements.

7. Inability to access the properties for the geotechnical investigations will cause critical delays in completing studies, which will result in delays in conducting the analysis necessary to complete the environmental documentation process and secure permits.

Facts Supporting Finding No. 2:
The Project and Acquisitions Are Planned and Located In a Manner that Is Most Compatible with the Greatest Public Good and Least Private Injury.

8. The study area consists of properties located in the Sacramento, San Joaquin, Contra Costa, Solano and Yolo Counties, and traverse generally south of the City of Sacramento, south of Clifton Court Forebay, and from the eastern to the western boundary of the legal delta.

9. The Geotechnical Exploration and Supplemental Staff Report exhibits identify the properties with geotechnical investigation sites, the project reason for choosing each site, and considerations for reducing impacts to people and private property.

Facts Supporting Finding No. 3:
The Easements To Be Acquired Are Necessary for the Project.

Site Selection

10. Sites were selected with respect to the alignments identified in the Conceptual Engineering Report (CER) and after consultation with the members of the DHCCP team, which included staff from the environmental, legal, real estate, engineering, and geotechnical disciplines. The criteria established by the team was to obtain relevant soil information for preliminary and final design of facilities and permitting requirements (US Army Corps of Engineers, Division of Safety of Dams, etc.), to provide consistency with temporary entry permit language and landowner concerns, to implement and follow the Mitigated Negative Declaration

language and required permits, and to minimize overall impacts. A majority of the sites were selected to provide information and data primarily for the intakes, river crossings, Intermediate Forebay, and the Byron Tract Forebay. Additional sites were selected for the Pipeline/Tunnel Option.

11. The Geotechnical Exploration exhibit includes a chart identifying each proposed hole and specifying why the locations were chosen.

A Temporary Easement Would Not Comply with the Superior Court's Ruling

12. DWR initially attempted to gain access for the geological studies by obtaining voluntary temporary entry permits. When that was unsuccessful, DWR sought access through the court-ordered entry process. After Judicial Council coordination proceedings, the matter was venued in the County of San Joaquin.

13. In reviewing DWR's request for court-ordered entry to conduct geological testing, the Superior Court of San Joaquin County found that the evidence supported the following conclusions: 1) DWR needs to conduct the proposed geotechnical activities in order to determine the best feasible alternative for the water conveyance project; 2) the water conveyance project is a matter of public interest; and 3) DWR is authorized to investigate the project. (April 8, 2011 Order at p. 2.) However, the Court denied DWR's request for entry pursuant to the precondemnation statutes (Code of Civ. Proc. §§ 1245.010 et seq.) on the grounds that the requested entry would amount to an unconstitutional taking of private property. The Court construed the precondemnation statutes:

> [T]o only authorize borings to the extent constitutionally permissible. Alternatively, the court would declare Section 1245.010 unconstitutional under Article I, Section 19 of the California Constitution to the extent it authorized borings such as in the Project while including the removal and taking of native soil and the injection of a *permanent* foreign substance in the quantities contemplated in the Project. (Order at p. 8, emphasis added.)

In reaching its decision, the Court relied on a United States Supreme Court opinion which held that the installation of a cable television box and wire occupying about 1.5 cubic feet on an

apartment building was a *permanent physical occupation of property* and therefore constituted a taking. (Order at p. 4, citing *Loretto v. Teleprompter Manhattan CATV Corp.* (1982) 458 U.S. 419, 438.) The Superior Court then noted that the geotechnical borings would remove about 2.04 cubic yards of native soil, which would be replaced permanently with the same amount of bentonite grout.

14. The Superior Court's Order makes no mention of easements whatsoever, permanent or temporary. However, just as the permanent nature of the cable box was a determining factor for the U.S. Supreme Court, the permanent nature of the bentonite backfill was a determining factor for the Superior Court in reaching its decision. Likewise, just as a temporary easement would be an insufficient property right to place a permanent cable box, under the Superior Court's Order, DWR believes that a temporary easement would be an insufficient property right to place permanent bentonite backfill under the court's reasoning.

15. After the Superior Court issued Order, DWR filed a renewal motion requesting two entry days to conduct surveys solely for the purpose of hole placement. Most of the landowners opposed this motion. The Superior Court declined to rule on the motion on the grounds that the matter was stayed pending DWR's appeal of the Order.

16. Upon completion of DWR's geotechnical investigation on the property, DWR will quitclaim its permanent easement in favor of the landowner(s).

Facts Supporting Finding No. 4:
The Written Offer to the Owner of Record Has Been Made.

17. DWR has repeatedly attempted to obtain voluntary access to the properties, but consent for entry has not been granted. Attached is an example of the documents sent to all relevant landowners, which includes the offer, the proposed temporary easement deed, legal description, and map.

18. True and correct copies of the offers submitted to the landowners of the properties presently before the Commission are included in the attachments.

The Project Is Funded.

19. The Department has entered into funding agreements with public water agencies that receive water from the State Water Project (SWP) for purposes of funding work necessary for collecting information and developing environmental documents for the BDCP. Under the funding agreements with the SWP water agencies, the Department bills these water agencies through the SWP Annual Statement of Charges, which provides for collection of funds through equal monthly payments in advance of the work. The Department has approved the Task Order describing the geotechnical and survey work that will be conducted on the proposed study areas. In addition, in 2011, the Department obtained through the SWP Annual Statement of Charges all the funds necessary to cover costs of this work.

Hazardous Materials Testing Is Necessary.

20. The testing to be conducted on the soil samples removed from the properties would help identify the potential presence of the chemical substances. Any potential soil contamination must be considered in the early stage of project development as the discovery of hazardous materials can impact project alignment, schedule, increase project cost, and adversely impact the health and safety of workers.

21. DWR has conducted numerous drilling activities in the Delta. The results of recent lab testing (soil samples tested over the past three years) have not required any reporting action by DWR. Substances that have been tested have not exceeded the threshold limits established by regulatory departments of the California Environmental Protection Agency.

22. DWR will be responsible for the proper handling and disposal of materials that DWR removes from the property as part of the geotechnical investigation. Under state, federal, and local laws, parties responsible for any hazardous materials preexisting DWR's activities on

the property may include current or prior owners, operators, generators, and transporters. Because DWR does not fall into any of these categories, DWR cannot accept responsibility for preexisting hazardous materials on the property, if any.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed at Sacramento, California, this 20 day of December, 2011.

RICHARD SANCHEZ

Exhibit "C"

CALIFORNIA WATER COMMISSION

Additional Information for the Commission on Delta Habitat Conservation and Conveyance Program Geologic Exploration Activities

November 16, 2011

INTRODUCTION OF STAFF
PURPOSE OF THIS PRESENTATION

- Declaration of Richard Sanchez: Covers the findings required to adopt a Resolution of Necessity; status legal descriptions; temporary versus permanent easements; status of funding; and hazardous materials testing.
- Other Issues: Contact with Reclamation Districts, Status of CEQA Case,

Facts Supporting Finding No. 1: The Public Interest and Necessity Require the Project for Engineering Geotechnical Studies.

- The proposed engineering geotechnical studies are in support of the DHCCP and Bay Delta Conservation Plan (BDCP).
- These studies are necessary to investigate and determine the best alternatives for Delta water conveyances and other conservation measures.
- The data gathered is required before some federal permits may be issued for the BDCP.
- Inability to access the properties for the geotechnical investigations will cause critical delays in completing studies, which will result in delays in conducting the analysis necessary to complete the environmental documentation process and secure permits.

Facts Supporting Finding No. 2: The Project and Acquisitions Are Planned and Located In a Manner that Is Most Compatible with the Greatest Public Good and Least Private Injury.

- The Geotechnical Exploration and Supplemental Staff Report exhibits in your packets identify the properties with geotechnical investigation sites, the project reason for choosing each site, and considerations for reducing impacts to people and private property. More detailed information will be provided when we discuss individual properties.

Facts Supporting Finding No. 3: The Easements To Be Acquired are Necessary for the Project.

- The Declaration outlines the general process for selecting sites.
- The Geotechnical Exploration exhibit includes a chart identifying each proposed hole and specifying why the locations were chosen.
- Regarding the temporary versus permanent easement issue, based upon our reading of the Superior Court's Order denying DWR's request for geotechnical studies, DWR believes that a temporary easement would be an insufficient property right to place permanent bentonite backfill under the court's reasoning. However, upon completion of DWR's geotechnical investigation on the property, DWR will quitclaim its permanent easement in favor of the landowner(s).

Facts Supporting Finding No. 4: The Written Offer to the Owner of Record Has Been Made.

- Copies of the offers submitted to the landowners of the properties presently before the Commission are included in the attachments to the Declaration.
- Legal Descriptions are included with each offer as well as in the letter to owners notifying them of the Commission meetings, and in the Resolution of Necessity.

Project Funding

- Under the funding agreements, the Department bills certain state and federal water agencies via the State Water Project Annual Statement of Charges. The Department obtained through the SWP Annual Statement of Charges all the funds necessary to cover costs of this work.

Hazardous Materials Testing Is Necessary.

- The testing to be conducted on the soil samples removed from the properties would help identify the presence of chemical substances. Any potential soil contamination must be considered because the discovery of hazardous materials can impact alignment selection, schedule, and increase costs. However, no testing for pesticides will be conducted unless there are indicators (dead vegetation, crusting, discolored soil, odors, etc.) in the immediate area.
- DWR will be responsible for the proper handling and disposal of materials that DWR removes from the property as part of the geotechnical investigation. Under state, federal, and local laws, parties responsible for any hazardous materials preexisting DWR's activities on the property may include current or prior owners, operators, generators, and transporters.

DWR's Authority to Acquire Property

- DWR has covered the authority issue extensively in prior meetings. However, a summary of DWR's authority for the project is included in your packets.

Coordination with the Reclamation Districts

- DWR staff and the program's public outreach consultants (URS) have been keeping local Reclamation Districts informed of our geotechnical activities within their jurisdictions.

Program Environmental Documentation (Initial Study, Mitigated Negative Declaration, Notice of Determination)

- DWR issued a Notice of Intent (Supplemental) on July 1, 2010 and approved a final Mitigated Negative Declaration (MND) on September 23, 2010.
- As a CEQA responsible agency, the Commission would be relying on DWR's Mitigated Negative Declaration when making its decision on whether to adopt a Resolution of Necessity.
- If the Resolution of Necessity is adopted, the Commission would issue its own Notice of Determination (NOD).

Sacramento County Superior Court ruling (CEQA)

- Petitioners Central Delta Water Agency, South Delta Water Agency, RC Farms Inc., and Reclamation District 999 challenged the adequacy of DWR's Initial Study and Mitigated Negative Declaration prepared and adopted by DWR for its project consisting of overwater and land geotechnical studies investigating the engineering properties of soils within the Delta.
- The Court rejected Petitioners' argument that the geotechnical studies were part of the BDCP for purposes of environmental review.
- Judge Connelly stated: "...neither the geotechnical studies nor the non-geotechnical studies are reasonably characterized as part of the planning or development phases of the BDCP. DWR has undertaken the studies to gather information and data to be used in planning or development of a water conveyance alternative under the BDCP. The information and data may be necessary to support the planning and development of a water conveyance alternative".
- The Court further found that a MND, not an EIR, was the proper environmental document to be filed under CEQA and that there were no cumulative impacts to the project that were significant and that the MND was properly noticed and circulated.

Exhibit "D"

Laboratory Testing Methods
Delta Habitat Conservation & Conveyance Program

1. Purposes and Methods of Laboratory Testing

DWR is currently engaged in a geotechnical investigation program to determine the subsurface material characteristics in terms of type of soils, classification, and strength and chemical properties of the materials. The main purpose of performing the laboratory tests is to provide supports for the preparation of EIR/EIS, help determine the mitigation measures if the potential impacts to the environment and community are identified, and provide input to the future design/engineering activities.

In order to better define its characteristics, the soil materials will be subject to laboratory tests. The governing geotechnical laboratory testing methods are mostly from American Society for Testing and Materials (ASTM), CA Department of Transportation, etc. The environmental testing methods are from Environmental Protection Agency (EPA), California Administrative Manual (CAM), Code of Federal Regulations, California Test Method (CTM), etc. The specialty testing methods are from ASTM, Norwegian University of Science and Technology, etc.

2. Geotechnical Laboratory Testing Methods

The geotechnical testing methods for DHCCP consist of the following:

a. Determination of soil classification: The tests method indicated below would help determine the type of soils at the locations for the proposed facilities and structures of the conveyance alternatives. The test results will address the geological settings of the proposed conveyance alternatives for the EIR/EIS.

- Grain size analysis (ASTM-D422)
- GSN with hydrometer (ASTM-D422)
- Moisture content (ASTM-D2216)
- Atterberg Limit (ASTM-D4318)
- Specific gravity (ASTM-D856)
- Organic content (ASTM-D2976)
- Permeability test for granular soil (ASTM-D2434)
- Permeability test using triaxial apparatus (ASTM-D5084)
- Pin hole dispersion (ASTM-D4647)

b. Determination of soil strength property and compressibility: The tests indicated below would help determine the suitability of the foundation soils and the load carrying capacity of the materials to support the planned facilities and structures, identify the construction and installation methods, and provide input for the future design/engineering activities. The test results will help address the related environmental impacts resulting from facility installations and related construction activities, and prompt the consideration for the mitigation measures.

- Unconsolidated undrained triaxial shear test (ASTM-D2850)

- Consolidated drained triaxial shear test with porewater measurement (ASTM-D4767)
- Consolidation test (ASTM-D2435)

c. Determination of compaction density: The test methods indicated below would help identify the requirement for backfill compaction and type of equipment needed to accomplish the work. The test results will help address the potential environmental impact resulting from this construction activity for the EIR/EIS.

- Standard Proctor density test (ASTM-D698)
- Modified Proctor density test (ASTM-D1557)

3. Environmental Laboratory testing methods

The environmental testing methods for DHCCP can be grouped according to the sample type and testing purposes.

a. Soil and water samples: The test methods indicated below would help identify the potential presence of the chemical substances within the subsurface materials. The test results will help minimize worker exposure to unsuitable materials if detected, and identify the potential amount (and the related construction cost) of the unsuitable materials, if any, need to be disposed to support the construction planning, and address the related environmental impacts.

- Total petroleum hydrocarbons as gasoline, diesel and motor soil (TPH-G, D, MO) (EPA 8015 G/8015D/8015MO). The hazardous substance definition as defined in CERCLA excludes petroleum, including crude oil or any fraction thereof. The contaminants of TPH are subject to a two-tiered evaluation and under different minimum laboratory reporting limit. The test results indicated so far no chemical Compounds relating to the petroleum hydrocarbons exceed the threshold limits.
- California Administrative Manual/California Code of Regulations Title 22 (CAM-17) listing of 17 metals, which include Ag, As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mo, Ni, Pb, Sb, Se, Tl, V, Zn. The test results indicate so far no chemical compounds exceed the threshold limits as defined by the Cal/EPA Department of Toxic Substances Control (DTSC). Section of 103 of CERCLA requires that DWR to report the findings of a release of a hazardous substance greater than the threshold limits (see attachment for excerpt of Paragraph 6626.24 of Unofficial California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 3). From the past three years of laboratory testing on collected samples, the findings indicated that the test results are well below the threshold limits and no action of reporting is required.
- Pesticide residues plus mercury determination (EPA SW8081A). The pesticide testing performed on soil sample is not aiming for any specific pesticide used by the property, but to find out what chemical residues from pesticides remain in the soils that would allow the planning for future worker exposure. Test results indicate so far no chemical residues exceed the threshold levels (see same attachment as noted above). It is therefore no further action of reporting is required.

b. Water samples: The tests methods indicated below would help determine the water characteristics in terms of its salinity, acidity and basicity, conductivity, and dissolved gases of methane, sulfides, oxygen, and Methyle Mercury. The test results will assist the EIR/EIS preparation and address any environmental and health and safety concerns, if any, for work to be performed in the confined areas.

- Total dissolved solids (EPA 160.1)
- Salinity (EPA Method 300.0)
- Conductivity (CTM 643)
- PH (CTM 643)
- Methane + CO_2 (EPA RSK175)
- Dissolved sulfides (EPA SM4500 S_2O)
- Dissolved O_2 (EPA SM4500 OB)
- Methyle Mercury (EPA E1630 modified)

3. Specialty Laboratory Testing Methods

The specialty testing methods for DHCCP consist of the following:

a. Determination of swell characteristics of clayey soils: The test method indicated below will help identify the potential presence of certain type of soil which will exhibit swelling pressure when the overburden is removed from excavation. The test result will provide input to the EIS/EIS evaluation and support future design/engineering activities.

- Soil swelling test (ASTM-D4546)

b. Determination of the abrasivity of granular soils: The test methods indicated below will identify the abrasive nature of the sandy and gravelly soils which in turn will help determine the wear-out rate of the cutting wheels of the tunnel boring machine and the associated down-time and frequency for cutting wheel replacement. This information will support EIR/EIS evaluation relating to the potential impact due to prolonged construction activities that will necessitate the mitigation measures such as strengthening cutting wheels, etc.

- Soil abrasion Test (NTNU-SINTEF)
- Slurry Abasivity Test (ASTM-G75)

c. Determination of the stickiness of the clayey soils: The test method indicated below will assist in identifying the clay minerals and the stickiness of the clayey soils that in turn will help determine the tunnel excavation advance rate. This information will help address the environmental impact due to the prolonged construction schedule and the associated mitigation measures to reduce the stickiness of the clayey soil with the introduction of admixture to the soil prior to excavation.

- X-ray diffraction analysis of soil

Article 3. Characteristics of Hazardous Waste

§66261.20. General.

(a) A waste, as defined in section 66261.2, which is not excluded from regulation as a hazardous waste pursuant to section 66261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in this article.

(b) A waste which is identified as a hazardous waste pursuant to one or more of the characteristics set forth in section 66261.21, 66261.22(a)(1), 66261.22(a)(2), 66261.23 or 66261.24(a)(1) is assigned the EPA Hazardous Waste Number set forth in this article for each characteristic that is applicable to that waste. These numbers shall be used in complying with the notification requirements of Health and Safety Code section 25153.6 and, where applicable, in the recordkeeping and reporting requirements under chapters 12 through 15, 18 and 20 of this division.

(c) Sampling and sample management of wastes and other materials for analysis and testing pursuant to this article shall be in accord with the sampling planning, methodology and equipment, and the sample processing, documentation and custody procedures specified in chapter nine of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition, U.S. Environmental Protection Agency, 1986 (incorporated by reference, see section 66260.11 of this chapter). In addition to the sampling methods in chapter nine of SW-846, the Department will consider samples obtained using any of the other applicable sampling methods specified in Appendix I of this chapter to be representative samples.

NOTE: Authority cited: Sections 208, 25141 and 25159, Health and Safety Code. Reference: Sections 25141, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.20.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§66261.21. Characteristic of Ignitability.

(a) A waste exhibits the characteristic of ignitability if representative samples of the waste have any of the following properties:

(1) it is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 60°C (140°F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (incorporated by reference, see section 66260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see section 66260.11), or as determined by an equivalent test method approved by the Department pursuant to section 66260.21;

(2) it is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard;

(3) it is an ignitable compressed gas as defined in 49 CFR section 173.300 (as amended September 30, 1982) and as determined by the test methods described in that regulation or equivalent test methods approved by the Department pursuant to section 66260.21;

(4) it is an oxidizer as defined in 49 CFR section 173.151 (as amended May 31, 1979).

(b) A waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

NOTE: Authority cited: Sections 208, 25141 and 25159, Health and Safety Code. Reference: Sections 25117, 25120.2, 25141, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.21.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§66261.22. Characteristic of Corrosivity.

(a) A waste exhibits the characteristic of corrosivity if representative samples of the waste have any of the following properties:

(1) it is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using either the EPA test method for pH or an equivalent test method approved by the Department pursuant to section 66260.21. The EPA test method for pH is specified as Method 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition and updates, (incorporated by reference, see section 66260.11);

(2) it is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition and updates (incorporated by reference, see section 66260.11) or an equivalent test method approved by the Department pursuant to section 66260.21;

(3) it is not aqueous and, when mixed with an equivalent weight of water, produces a solution having a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using either Method 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition and updates (incorporated by reference, see section 66260.11) or an equivalent test method approved by the Department pursuant to 66260.21;

(4) it is not a liquid and, when mixed with an equivalent weight of water, produces a liquid that corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined

by the test method specified in NACE Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition and updates (incorporated by reference, see section 66260.11) or an equivalent test method approved by the Department pursuant to 66260.21.

(b) A waste that exhibits the characteristic of corrosivity specified in subsection (a)(1) or (a)(2) of this section has the EPA Hazardous Waste Number of D002.

NOTE: Authority cited: Sections 25141, 25159, 58004 and 58012, Health and Safety Code. Reference: Sections 25117, 25120.2, 25141, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.22.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).
2. Amendment of subsections (a)(1)-(4) and NOTE filed 10-13-98; operative 11-12-98 (Register 98, No. 42).

§66261.23. Characteristic of Reactivity.

(a) A waste exhibits the characteristic of reactivity if representative samples of the waste have any of the following properties:

(1) it is normally unstable and readily undergoes violent change without detonating;

(2) it reacts violently with water;

(3) it forms potentially explosive mixtures with water;

(4) when mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment;

(5) it is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment;

(6) it is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement;

(7) it is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure;

(8) it is a forbidden explosive as defined in 49 CFR section 173.51 (as amended April 20, 1987), or a Class A explosive as defined in 49 CFR section 173.53 (as amended April 5, 1967) or a Class B explosive as defined in 49 CFR section 173.88 (as amended May 19, 1980).

(b) A waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

NOTE: Authority cited: Sections 208, 25141 and 25159, Health and Safety Code. Reference: Sections 25117, 25120.2, 25141, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.23.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§66261.24. Characteristic of Toxicity.

(a) A waste exhibits the characteristic of toxicity if representative samples of the waste have any of the following properties:

(1) when using the Toxicity Characteristic Leaching Procedure (TCLP), test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, third edition and Updates (incorporated by reference in section 66260.11 of this division), the extracts from representative samples of the waste contain any of the contaminants listed in Table I of this section at a concentration equal to or greater than the respective value given in that table unless the waste is excluded from classification as a solid waste or hazardous waste or is exempted from regulation pursuant to 40 CFR section 261.4. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purposes of this section;

(A) a waste that exhibits the characteristic of toxicity pursuant to subsection (a)(1) of this section has the EPA Hazardous Waste Number specified in Table I of this section which corresponds to the toxic contaminant causing it to be hazardous;

(B) Table I - Maximum Concentration of Contaminants for the Toxicity Characteristic:

EPA Hazardous Waste Number	Contaminant	Chemical Abstracts Service Number	Regulatory Level Mg/l
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0

EPA Hazardous Waste Number	Contaminant	Chemical Abstracts Service Number	Regulatory Level Mg/l
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	200.0[1]
D024	m-Cresol	108-39-4	200.0[1]
D025	p-Cresol	106-44-5	200.0[1]
D026	Cresol		200.0[1]
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	0.13
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	0.13
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	5.0[2]

EPA Hazardous Waste Number	Contaminant	Chemical Abstracts Service Number	Regulatory Level Mg/l
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D041	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

[1] If o-, m- and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

[2] Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

(2) it contains a substance listed in subsections (a)(2)(A) or (a)(2)(B) of this section at a concentration in milligrams per liter of waste extract, as determined using the Waste Extraction Test (WET) described in Appendix II of this chapter, which equals or exceeds its listed soluble threshold limit concentration or at a concentration in milligrams per kilogram in the waste which equals or exceeds its listed total threshold limit concentration;

(A) Table II - List of Inorganic Persistent and Bioaccumulative Toxic Substances and Their Soluble Threshold Limit Concentration:

(STLC) and Total Threshold Limit Concentration (TTLC) Values.

Substance [a,b]	STLC mg/l	TTLC Wet-Weight mg/kg
Antimony and/or antimony compounds	15	500
Arsenic and/or arsenic compounds	5.0	500
Asbestos		1.0 (as percent)
Barium and/or barium compounds (excluding barite)	100	10,000[c]
Beryllium and/or beryllium compounds	0.75	75
Cadmium and/or cadmium compounds	1.0	100
Chromium (VI) compounds	5	500
Chromium and/or chromium (III) compounds	5[d]	2,500
Cobalt and/or cobalt compounds	80	8,000
Copper and/or copper compounds	25	2,500
Fluoride salts	180	18,000
Lead and/or lead compounds	5.0	1,000
Mercury and/or mercury compounds	0.2	20

Substance [a,b]	STLC mg/l	TTLC Wet-Weight mg/kg
Molybdenum and/or molybdenum compounds	350	3,500[e]
Nickel and/or nickel compounds	20	2,000
Selenium and/or selenium compounds	1.0	100
Silver and/or silver compounds	5	500
Thallium and/or thallium compounds	7.0	700
Vanadium and/or vanadium compounds	24	2,400
Zinc and/or zinc compounds	250	5,000

[a]STLC and TTLC values are calculated on the concentrations of the elements, not the compounds.
[b]In the case of asbestos and elemental metals, the specified concentration limits apply only if the substances are in a friable, powdered or finely divided state. Asbestos includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.
[c]Excluding barium sulfate.
[d]If the soluble chromium, as determined by the TCLP set forth in Appendix I of chapter 18 of this division, is less than 5 mg/l, and the soluble chromium, as determined by the procedures set forth in Appendix II of chapter 11, equals or exceeds 560 mg/l and the waste is not otherwise identified as a RCRA hazardous waste pursuant to section 66261.100, then the waste is a non-RCRA hazardous waste.
[e]Excluding molybdenum disulfide.

(B) Table III - List of Organic Persistent and Bioaccumulative Toxic Substances and Their Soluble Threshold Limit Concentration (STLC) and Total Threshold Limit Concentration (TTLC) Values:

Substance	STLC mg/l	TTLC Wet Weight mg/kg
Aldrin	0.14	1.4
Chlordane	0.25	2.5
DDT, DDE, DDD	0.1	1.0
2,4-Dichlorophenoxyacetic acid	10	100
Dieldrin	0.8	8.0
Dioxin (2,3,7,8-TCDD)	0.001	0.01
Endrin	0.02	0.2
Heptachlor	0.47	4.7
Kepone	2.1	21
Lead compounds, organic	--	13
Lindane	0.4	4.0
Methoxychlor	10	100
Mirex	2.1	21
Pentachlorophenol	1.7	17
Polychlorinated biphenyls (PCBs)	5.0	50
Toxaphene	0.5	5
Trichloroethylene	204	2,040
2,4,5-Trichlorophenoxypropionic acid	1.0	10

(3) it has an acute oral LD_{50} less than 2,500 milligrams per kilogram;
(4) it has an acute dermal LD_{50} less than 4,300 milligrams per kilogram;
(5) it has an acute inhalation LC_{50} less than 10,000 parts per million as a gas or vapor;
(6) it has an acute aquatic 96-hour LC_{50} less than 500 milligrams per liter when measured in soft water (total hardness 40 to 48 milligrams per liter of calcium carbonate) with fathead minnows (*Pimephales promelas*), rainbow trout (*Salmo gairdneri*) or golden shiners (*Notemigonus crysoleucas*) according to procedures described in Part 800 of the "Standard Methods for the Examination of Water and Wastewater (16th Edition)," American Public Health Association, 1985 and "Static Acute Bioassay Procedures for Hazardous Waste Samples," California Department of Fish and Game, Water Pollution Control Laboratory, revised November 1988 (incorporated by reference, see section 66260.11), or by other test methods or test fish approved by the Department, using test samples prepared or meeting the conditions for testing as prescribed in subdivisions (c) and (d) of Appendix II of this chapter, and solubilized, suspended, dispersed or emulsified by the cited procedures or by other methods approved by the Department;
(7) it contains any of the following substances at a single or combined concentration equal to or exceeding 0.001 percent by weight:
(A) 2-Acetylaminofluorene (2-AAF);
(B) Acrylonitrile;
(C) 4-Aminodiphenyl;
(D) Benzidine and its salts;
(E) bis (Chloromethyl) ether (BCME);
(F) Methyl chloromethyl ether;
(G) 1,2-Dibromo-3-chloropropane (DBCP);
(H) 3,3'-Dichlorobenzidine and its salts (DCB);
(I) 4-Dimethylaminoazobenzene (DAB);
(J) Ethyleneimine (EL);
(K) alpha-Naphthylamine (1-NA);
(L) beta-Naphthylamine (2-NA);
(M) 4-Nitrobiphenyl (4-NBP);
(N) N-Nitrosodimethylamine (DMN);
(0) beta-Propiolactone (BPL);
(P) Vinyl chloride (VCM);
(8) it has been shown through experience or testing to pose a hazard to human health or environment because of its carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties or persistence in the environment.

(b) A waste containing one or more materials which exhibit the characteristic of toxicity because the materials have the property specified in subsection (a)(5) of this section may be classified as nonhazardous pursuant to section 66260.200 if the waste does not exhibit any other characteristic of this article and is not listed in article 4 of this chapter and its head space vapor contains no such toxic materials in concentrations exceeding their respective acute inhalation LC_{50} or their LC_{LO}. The head space vapor of a waste shall be prepared, and two milliliters of it shall be sampled using a five milliliter gas-tight syringe, according to Method 5020 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 2nd edition, U.S. Environmental Protection Agency, 1982 (incorporated by reference, see section 66260.11). The quantity in milligrams of each material, which exhibits the characteristic of toxicity because it has the property specified in subsection (a)(5) of this section, in the sampling syringe shall be determined by comparison to liquid standard solutions according to the appropriate gas chromatographic procedures in Method 8010, 8015, 8020, 8030 or 8240 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition, U.S. Environmental Protection Agency, 1986 (incorporated by reference, see section 66260.11). The concentration of each material in the head space vapor shall be calculated using the following equation:

$$C_A = \frac{Q_A}{MW} \times \frac{29.8ml}{mmole} \times \frac{1}{2 \times 10^{-5} M^3}$$

where C (in parts per million) is the concentration of material A in head space vapor, Q (in milligrams) is the quantity of material A in sampling syringe and MW (in milligrams per millimole) is the molecular weight of material A. Where an acute inhalation LC_{50} is not available, an LC_{50} measured for another time (t) may be converted to an eight-hour value with the following equation:

Eight-hour LC_{50} = (t/8) x (t-hour LC_{50}).

(c) A waste containing one or more materials which exhibit the characteristic of toxicity because the materials have either of the properties specified in subsection (a)(3) or (a)(4) of this section may be classified as nonhazardous pursuant to section 66260.200 if the waste does not exhibit any other characteristic of this article and is not listed in article 4 of this chapter and the calculated oral LD_{50} of the waste mixture is greater than 2,500 milligrams per kilogram and the calculated dermal LD_{50} is greater than 4,300 milligrams per kilogram by the following equation:

$$\text{Calculated oral or dermal } LD_{50} = \frac{100\%}{\sum_{x=1}^{n} \frac{\%A_x}{T_{A_x}}}$$

where $\%A_x$ is the weight percent of each component in the waste mixture and ${}^{T}A_X$ is the acute oral or dermal LD_{50} or the acute oral LD_{LO} of each component.

NOTE: Authority cited: Sections 25141, 25159, 58004 and 58012, Health and Safety Code. Reference: Sections 25117, 25120.2, 25141, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.24.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).
2. Amendment of table II filed 1-31-94; operative 1-31-94 (Register 94, No. 5).
3. Editorial correction of equation (Register 95, No. 36).
4. Amendment of subsection (a)(1) and NOTE filed 10-13-98; operative 11-12-98 (Register 98, No. 42).
5. Change without regulatory effect amending subsections (a)(3) and (c) filed 6—3—2004 pursuant to section 100, title 1, California Code of Regulations (Register 2004, No. 23).

Exhibit "E"

Delta Habitat Conservation and Conveyance Program
Steps in Drilling and Soil Logging

The following outlines the extensive steps and details required for the DHCCP Geotechnical drilling and soils logging program.

A. Safety is our first consideration for any project.
   a. It is our responsibility to ensure a safe work environment. Safety starts in the planning stages, includes environmental and cultural considerations, and continues through the duration of the project.
   b. Part of the safety process occurs during the Parcel Access Process (PAP). This is our most important first step in ensuring a safe exploration program. The steps in the Parcel Access Process are described in Appendix A, "Geotechnical Parcel Selection and Clearance Process."
      i. During this process, and prior to going out into the field, a Division of Engineering Job Hazard Analysis (JHA) form is completed that outlines general field engineering threats tailored to the specific site. During the parcel access, a Pre-Drilling Survey is performed to identify any potential safety hazards. In addition USA clearances are performed.
      ii. Another JHA is filled out for the specific drilling project based on the first form and includes findings during the PAP.
      iii. Along with the JHA a Site Safety Form is created detailing the nearest location to emergency services.
      iv. A Heat Illness Prevention Plan must be completed when ever temperatures are expected to exceed 85 degrees during any field work.
      v. Additional safety procedures occur at the exploration site and are explained in further detail below.
   c. Safety for the environment is also considered. During the parcel process, an environmental survey of the proposed exploration location is performed. This survey indicates when and in some cases whether we can drill based on species and habitat. The survey also considers the best access to the exploration site that would have the least environmental impact.

B. Preparing for field work.
   a. The contracted drilling company is advised at least two weeks in advance by a Call-up letter or similar, of what the drilling method will be, the sampling equipment required, materials needed, and the start date and estimated duration of the job.
   b. The field engineering geologists should arrange with the drilling crew and environmental monitors to meet at a pre-arranged location near the desired exploration site.
   c. Before departing, the geologist needs to ensure that copies of the Field Safety Plan and Investigation Work Plan are on hand.

C. Day one at the exploration location
    a. DWR and contracted personnel need to check in with the DHCCP Field Survey Coordinator at the beginning of the field day.
    b. Once on-site, the field geologist consults with the environmental monitor to determine whether the environment has changed since the Geotechnical Parcel Selection and Clearance Process.
        i. The environmental monitor makes the determination based on existing environmental conditions whether the drill rigs can navigate to the desired exploration location.
    c. When necessary an environmental monitor will walk ahead of the drill rig to ensure the site is still clear of certain species and habitat since the initial Geotechnical Parcel Selection and Clearance Process (See Appendix A).
    d. The geologist may be forced to adjust or abandon the exploration location based on the following considerations:
        i. Conditions have changed or new observations have been made since the Geotechnical Parcel Selection and Clearance Process,
        ii. The drill rig can no longer or is unable to navigate to the drill site,
        iii. A potential conflict with petroleum, telecommunications, water, electric, or other utility lines has been observed that was missed during the initial clearance.
        iv. Species habitat conditions have become more precarious since the initial clearance.

D. Preparation for drilling.
    a. Before any work begins a tailgate safety meeting will be convened that includes drillers, geologists, environmental monitors, real estate agents, and any visitors.
        i. The field geologist(s) review safety procedures with all site personnel and outline the general drilling strategy with the drill-rig operator.
        ii. At the meeting the Field Safety Plan will be discussed and directions to the nearest hospital will be enumerated.
        iii. Set up shade canopy if appropriate.
        iv. Adequate supply of cool drinks/water on site.
        v. All personnel will discuss safety hazards likely to be encountered at site, including discussion of the Heat Illness Prevention Plan
        vi. The drill rig operator must explain where the emergency shutoff button is on the rig and how it functions.
        vii. Drillers and geologists will inform other personnel where first-aid kits and fire extinguishers are located.
        viii. The field geologist reminds the drilling crew to observe safe drilling practices, such as avoiding crossed cables on drill rig pulley, and ensuring idle drill rod is not hanging vertically from the rig.

    b. Prior to the start of drilling, several safety forms need to be signed off by all present.
        i. The Daily Safety Sheet is specific to DHCCP and lists all hazards likely to be encountered during field work for the program. The field geologist needs to fill out the form beforehand with site-specific threats and then discuss those threats at the site. The sheet needs to be signed by all present.
        ii. The DHCCP tailgate meeting sheet needs to be filled out once per exploration location and a minimum of once per week. This document will be signed by all present. New personnel to the site will have a tailgate meeting and also sign the form.

c. The field geologist(s) need to discuss the general exploration plan with the drilling crew.
   i. Hand augering will usually be performed for the first five feet.
   ii. After hand augering, drilling should usually start with hollow-stem augers until groundwater is encountered. Casing is installed to at least the depth of the water table. As a practice, casing up to a depth of about 30 feet has been performed.
   iii. When groundwater has been encountered, mud-rotary drilling will be used for the remainder of the hole.
   iv. At a minimum, the DHCCP's Investigation Plan relies on consecutive 5-foot-long drill runs where generally two or more types of sampling or testing methods are performed.
   v. Within the five foot run, typically at the start of the run, a 1.5-foot-long standard penetration test (SPT) is performed. This test involves a 1 3/8" constant inner diameter split-spoon sampler that is driven into the soil with a 140-pound hammer, dropped from a height of 2.5 feet. The sampler is driven 1.5 feet or until it reaches refusal. The number of hammer blows is recorded and allows for estimation of the relative density of sands. The split-spoon sampler brings a soil sample to the surface so that the field geologist can visually examine the soil and classify it according to the Unified Soil Classification System (USCS).
   vi. A punch core is used for the remainder of the 5-foot interval. As the drill rod advances, the punch core inner barrel retains the soil sample which is brought to the surface for visual examination and testing with field instruments such as a pocket penetrometer and torvane.
   vii. When fine grained soils have been encountered during drilling or are at known depths predetermined from adjacent CPT soundings, the field geologist will, based on the relative consistency of the soil, obtain a Shelby tube sample. This sample is obtained a minimum of one foot from the bottom of the last SPT test which minimizes disturbance of the sample.
      1. The Shelby tube is pushed into the soil, not driven, and obtains relatively undisturbed samples.
      2. The Shelby tube is sent to the geotechnical laboratory to test the in-situ strength properties of the soil.
      3. Details of how to handle and seal the Shelby sample are outlined below in section G-g.
   viii. Based on the geology encountered and a predetermined depth interval, the field geologist may use a hydro-punch sampler to collect groundwater.
      1. The depth interval is determined by the depth of key design structures and the permeability of the soil.
      2. A relatively clean coarse-grained layer is needed for efficient collection of the sample.
      3. The depth is generally determined based on correlation with an adjacent cone penetrometer sounding or can be determined by visual examination of soil samples during drilling.
      4. The groundwater from a hydro-punch is collected and sent to the laboratory for analysis; tests are usually methane and carbon dioxide but may include other environmental contaminants.
      5. Detailed methods on Hydropunch sampling are described below in section G-h.

E. Preparing for the Drill Hole
    a. The geologist completes the top of a blank boring log in consultation with the drill operator. Information includes:
        i. Date, project, feature, drill hole ID number, location
        ii. Names of driller and driller's helper(s)
        iii. Drilling method, bit size and type, drilling rod type and diameter
        iv. Drill rig make and model
        v. Casing type, diameter and depth
        vi. Hammer type, make, model, weight, drop distance
    b. The lead field geologist will begin a daily drilling sheet to record times of drilling activities, materials used, major events or issues and personnel present.

F. General Sampling Process
    a. A geologist photographs the entire retained sample
        i. Included in the photo is a scale in tenths of a foot and a whiteboard detailing the:
            1. Drill hole number.
            2. Date.
            3. Top and bottom depths of sample.
            4. Sample number.
            5. N-value (the sum of the blow counts for the bottom foot of the SPT).
        ii. A Photo Log is filled out for all photos taken.
    b. A geologist jars and labels the samples.
        i. Sample is placed in a quart-size mason jar filling the jar as much as possible with a representative portion of the sample.
        ii. The lid of the sample jar is labeled with the sample number (includes depths at top and bottom of interval), date, drill hole number, an N-value. The side of the sample jar is labeled with the same information as the lid.
        iii. A Chain of Custody (inventory) list is filled out with the sample number, date and time.
        iv. Each sample type (ex: SPT, Shelby, etc...) has its own Chain of Custody form filled out.
    c. If multiple soil types occur within the same sample, geologists need to jar each one separately and follow the preceding labeling process for each.

G. Sampling Methods and Logging. Soils logging is performed by the lead geologist who also determines the samples to be retained. All sample jarring, labeling, chain of custody and photo logging forms are performed by the lead with assistance from the second geologist if available.
    a. The field geologist should measure the depth to groundwater at the start of each drilling day.
    b. Geologists obtain a sample or samples if different soil types are encountered, of the cuttings from the top five feet of the hole which is generally hand augered.
        i. The geologist determines the percentage of organics, if present
        ii. On the field drill hole log, the geologist classifies the soil according to the USCS and the DHCCP Investigation Work Plan.
        iii. The samples are jarred and labeled according to Section F, General Sampling Process.
    c. A 1.5-foot-long standard penetration test generally begins a standard 5-foot-long sampling interval
        i. A geologist needs to count blows every half-foot during the SPT

1. If in gravelly soils, the geologist should count blows every tenth of a foot.

ii. A geologist determines the rate of the SPT hammer blows per minute. The rate should be between 30 to 40 blows per minute.

iii. When the drillers provide the SPT sample, the geologist should discard the slough from the top of the sample and measures the recovered sample to the tenth of a foot.

iv. The geologist examines the sample run and classifies the soil type(s) according to the USCS.

v. The samples are jarred and labeled according to Section F., General Sampling Process.

d. Drilling resumes with a punch or dry core system for the remainder of the regular 5-foot interval.

i. When the punch-core sample is obtained, the geologist discards the slough from the top of the same and measures the recovered sample to the tenth of the foot and records the measurement on the field log.

ii. If the recovery from the punch-core is less than the length of the run, then the recovery is measured down from the top of the run. Any lost material will be assumed to come from the bottom of the punch-core drill run.

iii. The field geologist examines the sample run and classifies the soil type according to USCS.

iv. If clay is present, a geologist performs pocket penetrometer and torvane tests and records their readings.

v. The samples are jarred and labeled according to Section F., General Sampling Process.

vi. If the sample is boxed, the boxes are labeled similarly to Section F., General Sampling Process.

vii. The Chain of Custody (inventory) form is filled out for both jarred and boxed samples.

e. Soil core samples from drill holes for the Pipeline/Tunnel option from depths of 90 to 150 feet should be retained in 5 or 10-foot polycore boxes.

i. Labeled wooden separator blocks with sample depths are then placed between sample runs in the polycore box.

ii. The polycore box is labeled on the top, sides, and bottom portion of the box with:

1. Drill Hole name
2. Date sampled
3. Box Number of Total
4. Project Name: BDCP/DHCCP
5. Depth interval of samples in box

f. The process is repeated unless conditions suitable (soft clays) for Shelby tube sampling exists.

g. Fine-grained soils with an N-value lower than 30 or a fine-grained interval has been identified from an adjacent CPT sounding are sampled with a Shelby tube sampler.

i. The down pressure force used to push the Shelby tube is obtained from the driller and recorded on the drill hole log.

ii. The distance pushed for the Shelby tube are recorded on the drill hole log.

iii. When the Shelby tube is retrieved, the geologist measures the recovery to a tenth of a foot by carefully scraping the slough off at the top of the sample and using a measuring tape, measures the length of the empty portion of the Shelby tube.

1. The geologist inserts and expanding seal at the top end of the sample then caps both ends and seals them with plastic tape.
2. The lids and tube are labeled with the same information described in Section F., General Sampling Process.
3. Geologists place a sticker label on the side of the tube with the same information
4. The Chain of Custody (inventory) form for the sample is filled out.

iv. Geologists store Shelby tubes upright in a padded rack to minimize disturbance until the tube is delivered to the geotechnical laboratory.

h. Hydropunch
   i. The geologist looks for sandy, permeable soil layers at the approximate depth of critical design structures.
   ii. The geologist directs the drill-rig operator to take a Hydropunch at appropriate interval.
   iii. Field personnel have empty, lab-approved containers on hand to collect the groundwater delivered to the surface by the Hydropunch bailer.
   iv. Geologists prepare a chain-of-custody form beforehand listing each container in which groundwater is collected.
   v. Geologists or drill crew members fill sample containers with groundwater.
   vi. The QA/QC (inventory) form for Hydropunch samples is filled out.

i. Environmental soil samples
   i. Personnel collect these samples at shallow depths
   ii. The drill crew inserts 6-inch-long brass liners into a Modified California sampler.
   iii. Geologists fill out the Chain of Custody (inventory) form for the samples and prepare the sample for delivery to the testing laboratory.

H. Soil Logging Field Classification protocol
   a. Geologist notes changes in split spoon or soil core samplers. On the boring log, the geologist records the top and bottom depth of the soil type to nearest tenth of a foot.
   b. A representative sample of each soil type present is decanted to determine the fines content to nearest the 5 percent.
   c. Sample designations are recorded in the "Remarks" column of the field log.
   d. Pocket penetrometer and torvane readings if applicable are recorded in their respective column.
   e. Dashed or dotted lines are used at the soil type breaks to convey how definitive the break in soil type is.
   f. Geologists describe the soil constituents by percentage in decreasing order from the largest constituent percentage to the least.:
      i. Percent cobbles or boulders (if greater than 50% a description is made of the sample and a separate description is made of the minus three – inch fraction);
      ii. Percent gravel, sand or fines;
      iii. Particle size range, angularity, shape;
      iv. For fine-grained soils:
         1. Plasticity
         2. Dry strength
         3. Dilatancy
         4. Toughness
         5. Consistency
      v. For coarse-grained soils

1. Relative density
2. Grain size

vi. HCl reaction
vii. Color
viii. Moisture
ix. Cementation
x. Description of cobbles and boulder
xi. Other properties

Geologists direct the contractor to drill the hole to the proposed depth, which varies according to the type of feature being proposed for the site. Geologist measures the depth to groundwater.

l. Drill hole is completed by backfilling or well construction
   a. The hole is completed as a monitoring well or backfilled with a grout mix of 95 percent cement (by weight) and 5 percent bentonite (by weight) using the tremie method.
   b. In over-water drilling, the field geologist needs to give drillers a specific volume of grout with the purpose of leaving the top 10 to 15 feet of the hole ungrouted.
   c. Geologists record the number of bags of cement and bentonite both to confirm the proper grout mix and to ensure accurate billing statements.
   d. Geologists photograph the grouting procedure, including the use of a tremie pipe and the drill hole after backfilling.
   e. Field personnel restore the site as close to pre-drilling conditions as practical. Geologists photograph the before and after site conditions.
   f. The lead geologist uses the boring log and daily drilling sheets to make mutually agreeable billing sheets with the drill operator.
   g. The lead geologist should make it clear that lunch and travel times are not charged as drilling times.
   h. The geologist should state the number of Shelby tubes, bags of material, polycore boxes, and any other supplies that were used on the field notes or billing sheets.

APPENDIX A

Geotechnical Parcel Selection and Clearance Process

Geotechnical Parcel Selection and Clearance Process

1. Parcel TEP information is reviewed to determine which parcels the geotechnical group needs to survey for potential geotechnical exploration.
    a. Based on parcel access
        i. Signed TEP,
        ii. Adequate days on parcel to complete the work,
        iii. Weather conditions,
        iv. Sufficient exploration work to justify mobilization of drilling/CPT equipment.

2. Inform environmental and cultural staff about potential survey dates we have planned to access these parcels.
    a. Parcel numbers and proposed dates of access (access for survey) as well as proposed boring information are transmitted to the environmental and cultural staff.
        i. Concurrence by environmental and cultural on the proposed dates is needed prior to the request being submitted to the survey coordinator.

3. Inform the field survey coordinator which parcels the geotechnical group would like to access for a pre-drilling survey using the Parcel Survey Request Form. This request form must be submitted to the survey coordinator a minimum of three weeks prior to the date that the geotechnical group would like to access the parcel.
    a. The field survey coordinator informs the geotechnical group if there are any other disciplines visiting the requested parcels, either prior to or during the week of our request.
        i. If a request for that parcel has been submitted by another discipline, an attempt will be made to visit the parcel on one of those previously requested days. This will cut down on the number of days on the parcel.
            1. This may result in relatively inefficient field days when only one or two parcels are visited. This is preferable to running out of days on a parcel.
    b. If no other survey teams have planned to go on the selected parcel(s) then the date we initially requested from the field survey coordinator will be the survey date.
    c. Days that have been scheduled by the coordinator on the requested parcel(s) count as days used, even if the discipline does not show up that day on the parcel.

4. When the survey date has been selected, transmit the pre-survey Daily Safety Sheet to the field survey coordinator at least 2 days prior to the survey date.

5. Contact the field survey coordinator on the day of the survey before entry of the first parcel and after the departure of the last parcel. Coordinate as required with DWR Real Estate and property owners to meet Real Estate agents and owner representatives in the field to discuss location of the boring.

6. Perform geotechnical survey of the parcel for drilling.
    a. Use the survey checklist to verify access to the drilling location and safety issues such as utilities, underground and overhead, access conditions, and cultural locations. Speak with the landowner or representative, if possible, about underground utilities or other underground potential problems, and about the daily traffic (farm equipment, public access, easement access etc.). Modifications to the exploration location may be required based on the survey. The new location will require the same survey. If a suitable site cannot be found, drilling cannot occur at this site.
    b. If there are environmental or cultural issues with the location of the potential boring, then modifications to the location are made in the field during the survey. Once all survey staff (and landowner where required) have agreed upon a location (this is also based on the geotechnical site survey), then the survey for the boring location is completed. The exploration area must be marked for USA clearances.
    c. Plan an alternative drill location near the primary location in case USA determines that there are utilities close to the primary exploration location. The alternative location should be within the area marked for USA clearances.
    d. The survey coordinator is sent the completed Daily Safety Sheet.
    e. Real Estate is sent a justification for this location if the exploration will go over the geotechnical discipline's allotted days per parcel.

7. Contact drilling contractor. Establish projected start of drilling date with contractor.
    a. Inform Environmental and Cultural of the projected dates.
    b. Inform Field Survey Coordinator of the projected dates (duration of survey) to allow for the compilation of days justifications as needed for inclusion with the parcel request.
    c. Inform environmental and cultural staff about drilling plan specifics.
    d. Inform DWR Survey about proposed drilling dates.
        i. Fill out required survey request forms.

8. Send the Parcel Survey Request Form with the proposed exploration dates for each parcel to the survey coordinator at least three weeks prior to the start of drilling. The same process is followed by the survey coordinator as before and every attempt will be made to combine disciplines.

a. Field survey coordinator will inform the geotechnical group if any changes are needed to the exploration plan.

9. Contact Public Outreach
    a. Send Public Outreach location information, maps, and dates of planned exploration.
    b. Public Outreach will inform the affected Reclamation Districts about the planned exploration.

10. Finalize start date with drilling contractor.

11. Contact USA clearances a minimum of three days before the start of drilling.
    a. If utility issues arise, the alternative site can be used. If this site also has a utility problem, then an alternative site must be found within the USA cleared area. This location must again be cleared using the geotechnical survey checklist and by environmental and cultural before drilling can begin.
        i. It is likely that if utility issues arise for the primary location, the final exploration location may not be realized until the scheduled day of drilling. The exploration location cannot be moved outside of the USA cleared area.
        ii. If there is no choice but to move the exploration location outside of the area cleared by USA, then drilling cannot begin until USA is called to clear the new area. This will require a delay of at least 3 business days.
    b. If a suitable site can't be found then the exploration at this site must be cancelled.

12. The pre-survey Daily Safety Sheet is sent to the field survey coordinator at least 2 days prior to drilling. Any recognized safety related changes in conditions at the project site will require a new or amended Daily Safety Sheet to be sent to the field survey coordinator.

13. Drilling activities begin if all conditions are met. The same process is followed by the drilling team including contacting the field survey coordinator, Real Estate and owner as required by the TEP and returning the completed daily Safety Sheet.