SUPERIOR COURT OF CALIFORNIA

COUNTY OF SACRAMENTO

CENTRAL DELTA WATER AGENCY, SOUTH DELTA WATER AGENCY, RC FARMS, INC., and RECLAMATION DISTRICT 999,

Petitioners,

v.

CALIFORNIA DEPARTMENT OF WATER RESOURCES, and Does 1 through 100, inclusive,

Respondents.

DOES 101 through 1000, inclusive,

Real Parties in Interest.

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Case No. 34-2010-80000698

Dept. 33

RULING ON SUBMITTED MATTER

In this proceeding, petitioners challenge the adequacy of an initial study and mitigated negative declaration ("MND") prepared and adopted by respondent Department of Water Resources ("DWR") under the California Environmental Protection Act ("CEQA"), Public Resources Code section 21000 et seq., and its implementing regulations set forth in Section 15000 et seq. of Title 14 of the California Code of Regulations ("CEQA Guidelines"). (AR 164-291.)[1] DWR prepared the MND for a

[1] References to the administrative record of proceedings on the MND include the abbreviation "AR" followed by the page number(s).

project consisting of overwater and land geotechnical studies investigating the engineering properties of soils within the Sacramento-San Joaquin Delta.

BACKGROUND

In 2010, DWR prepared an MND for a project consisting of overwater and land geotechnical studies investigating the engineering properties of soils within the Sacramento-San Joaquin Delta. The MND was noticed for comment in June and July 2010. The MND was adopted on September 23, 2010.

The geotechnical information gathered through the studies is intended to support the preparation of an environmental impact report/environmental impact statement ("EIR/EIS") for the Bay-Delta Conservation Plan ("BDCP") and/or a preliminary engineering design for the Delta Habitat Conservation and Conveyance Program. The BDCP is being developed jointly by DWR and the U.S. Bureau of Reclamation, the California Natural Communities Conservation Planning Act (Fish & G. Code § 2800 et seq.) and the federal Endangered Species Act (16 U.S.C. § 1531 et seq.) for the purpose of identifying and implementing strategies to protect and restore threatened and sensitive fish and wildlife species and their habitats in the Delta while providing for the conveyance of water through the Delta to supply water for drinking, agriculture and industry. (AR 171, 296-297.) The EIR/EIS for the BDCP is being prepared by DWR under CEQA and by federal environmental agencies under the National Environmental Policy Act ("NEPA"). (AR 297.)

Upon specified conditions, the BDCP may be included in the Delta Plan, a comprehensive, long-term plan developed pursuant to the Sacramento-San Joaquin Delta Reform Act of 2009 to achieve the coequal goals of providing a more reliable water supply for California and of protecting, restoring, and enhancing the ecosystem of the Delta. (See Wat. Code §§ 85000, 85054, 85059, 85300 et seq., 85320.) Among the conditions for its inclusion in the Delta Plan, the BDCP must review and analyze a reasonable range of Delta conveyance alternatives, including through-Delta, dual conveyance, and isolated conveyance alternatives. (Wat. Code § 85320, subds. (b)(2)(B),

(c).) The overwater and land geotechnical studies comprising the project are intended to provide information necessary for making decisions about the location, alignment, design, and costs of such conveyance alternatives, for evaluating their feasibility, and for identifying possible development constraints. (AR 166-167, 298-300, 172.) [2]

The project studies, scheduled from August 1, 2010 to December 31, 2012, investigate the engineering properties of Delta soils along various conveyance alignments, including auxiliary structures, and proposed intakes and forebays for the alignment alternatives. (AR 166.) The project includes approximately 80 overwater geotechnical borings in the Delta waterways. The borings range in depth between 100 and 200 feet below the river bottom and include 50 borings in the Sacramento River for possible intake structures in the for water conveyance facilities, 20 borings where a planned pipeline/tunnel option alignment would cross 12 major waterways, and 5 to 12 borings to obtain conceptual information for docking facilities. (AR 172-173.)

Overwater drilling is planned only during the time period of August 1 through October 31, between sunrise and sunset, and is not expected to exceed 60 days at any one location. (AR 172.) The drilling is conducted with a rotary drilling rig mounted on a shallow-draft barge or ship anchored to the bottom of the channel to prevent drifting during the drilling. (AR 173.) The drill apparatus consists of a conductor casing, 6- to 8-inches in diameter, through which the drilling rods, samplers and other equipment pass. (*Ibid.*) A heavy plastic sleeve is placed over the conductor casing. (AR 175.)

The borings are drilled and sampled using a mud rotary method in which bentonite clay is added to the boring to allow removal of cuttings and to stabilize the boring. (*Ibid.*) Soil samples are collected within the conductor casing. (*Ibid.*) Drilling fluid, consisting of circulating water mixed with bentonite clay, passes down the center of the drill rod to the cutting face and returns up the drilled hole with suspended cuttings while confined by the borehole walls, conductor casing and a recirculation tank at the top

[2] DWR undertook a similar but more limited geotechnical study project in 2009 but abandoned it and replaced it with the project under review in this proceeding. (See AR 15475ff.)

of the hole on the barge deck. (*Ibid.*) The cuttings settle out in the tank and are transferred into storage drums. (AR 175.)

Soil samples are obtained using standard penetration tests ("SPTs") in sandy and clay soils, and Shelby and piston tube (push) in soft clay soils. (*Ibid.*) SPTs are performed in short durations of a few minutes per test by dropping a 140-pound automatic hammer on the drill string to drive a sampler about 1.5 feet with a relatively small energy source. (*Ibid.*) Shelby tube and piston samples are collected by pushing on the drill string with the weight of the drill rig. (*Ibid.*) Upon completion of sampling, the borings are grouted, and the conductor casing is pulled out of the channel bottom to complete the boring operation. (*Ibid.*)

The land geotechnical studies included in the project consist of drilling boreholes and performing cone penetration tests to estimate the nature and sequence of subsurface soil strata, groundwater conditions, and physical and mechanical properties of the soil. (AR 175-176.) The land geotechnical studies also include excavation of approximately 30 shallow test pits to measure soil load-bearing capacity, physical properties of sediments, location of the groundwater table, and other geological and geotechnical parameters. (*Ibid.*) Temporary test wells may be installed at some sites to investigate soil permeability and allow sampling of dissolved gases in the groundwater. (AR 176.)

Drilling is planned to take place on disturbed soils on properties in the Delta readily accessible by established roads or paths. (*Ibid.*) After each site is investigated, the boring, cone penetration test and/or well holes are backfilled with cement-bentonite grout in accordance with California regulations and industry standards; test pits will be backfilled with the excavated material on the same day as they are dug. (*Ibid.*)

The Initial Study prepared for the project assessed its potential effects pursuant to CEQA requirements and determined that the project would not have any significant environmental effects. (AR 166, 291.) The Initial Study concluded that the effects are minor in scope and short-term in duration and that the implementation of

specified conservation measures and best management practices would avoid, minimize and mitigate impacts to environmentally sensitive resources to less than significant levels. (*Ibid.*)

On September 23, 2010, following notice and a period for public comment on the Initial Study and MND, DWR filed a Notice of Determination adopting the MND for the project.

ANALYSIS OF CONTENTIONS

Is the project part of BDCP for purposes of CEQA environmental review?

A project for purposes of CEQA environmental review means the "whole of an action" which has a potential for causing either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment. (Pub. Resources Code § 21065; CEQA Guideline 15378(a). This broad definition of a project is designed to maximize protection of the environment by preventing the division of a project into smaller components which, when considered separately, may not have significant environmental effects. (*Nelson v. County of Kern* (2010) 190 Cal.App.4th 254, 271.)

--Part of BDCP?

Petitioners contend that DWR has contravened the definition of project under CEQA by subdividing or "piecemealing" the BDCP into smaller components for purposes of CEQA, separating the review of BDCP's environmental impacts from those of the geotechnical study project at issue in this proceeding and from those of non-geotechnical field studies that DWR has previously initiated.[3] According to petitioners, the geotechnical and non-geotechnical studies cannot be analyzed in isolation from the environmental impacts of the BDCP under several provisions of the CEQA Guidelines:

[3] DWR initiated a variety of non-geotechnical field studies to gather data needed to determine the best water conveyance alternatives for the BDCP. (See AR 16827, ¶ 2.) These field studies include geodetic mapping, utility surveys, cultural resource studies, and a variety of surveys (botanical, recreational, fisheries, hydrology, vernal pool, reptilian amphibian, avian, mammal). (See AR 16830-16835.) The studies appear to have been initiated without CEQA review on the ground that they are basic information collection activities which would not result in serious or major disturbance to an environmental resource and may be part of a study leading to an action which a public agency has not yet approved, adopted, or funded. (See CEQA Guideline 15306.)

the studies are integral and necessary parts of the planning or development phases of the BDCP related water conveyance alternatives (see CEQA Guidelines 15126, 15161), and the studies are necessary precedents to the BDCP, a larger project. (See CEQA Guideline 15165.). Therefore, petitioners' observe, the environmental impacts of the studies must be reviewed in a staged, programmatic or master EIR for the BDCP. (See CEQA Guidelines 15167, 15168, and 15169.)

Petitioners also contend that the geotechnical studies are a component of the non-geotechnical field studies, hence part of the same project whose environmental impacts must be reviewed together. In reliance on *Tuolumne County Citizens for Responsible Growth, Inc. v. County of Sonora* (2007) 155 Cal.App.4th 1214, 1226-1227, petitioners point out that the geotechnical studies and non-geotechnical studies are closely related in ways that increase the potential for related physical changes to the environment and the need for a single review of their environmental impacts: the geotechnical studies and non-geotechnical studies have the same objective, the gathering of field data in furtherance of the development and implementation; are occurring close in time and location; and are undertaken by the same entity, DWR.

The Court rejects petitioners' contentions. 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. But the studies do not themselves involve any planning or development of a water conveyance and will not become a part or component of any conveyance planned, developed and implemented under the BDCP. The data gathering activity is short term and independent of BDCP planning and development for a water conveyance alternative yet to be defined, analyzed, approved, adopted or funded; it is not a necessary precedent for the planning and

development of a conveyance and does not commit DWR to the development of any conveyance.

Similarly, the geotechnical studies are not a component of the non-geotechnical studies. Although they share a broad generic function of gathering information for DWR to use in defining and assessing water conveyance alternatives and may be carried out close in time and near in location by DWR, the geotechnical studies are distinct from the non-geotechnical studies. They collect different kinds of information and data without any significant interaction. They need not be conducted close in time except as a matter of practical convenience. And they proceed independently of each other. [4]

--BDCP as reasonably foreseeable consequence?

As an alternative to their piecemealing contentions, petitioners contend that environmental review of the geotechnical studies project must include environmental review of BDCP components that are a reasonably foreseeable consequence of the studies. This contention is based on the holding of *Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 396, that the EIR for an initial project must include an analysis of the environmental effects of future expansion or other action if (1) it is a foreseeable consequence of the initial project and (2) it will be significant in that it will likely change the scope or nature of the initial project or its environmental effects. In applying this holding here, petitioners argue that a water conveyance facility defined, developed and implemented pursuant to the BDCP is a reasonably foreseeable consequence of the geotechnical studies because the data gathered by the studies enables DWR to determine a specific location for the construction and implementation of a conveyance facility, a primary component of the BDCP, and such a conveyance facility will significantly change the scope or nature of the geotechnical

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[4] Petitioners' seek a declaration that DWR, as a policy and practice, is subdividing or piecemealing the development and implementation of the BDCP. (See, e.g., *East Bay Mun. Utility Dist. v. Department of Forestry & Fire Protection* (1996) 43 Cal.App.4th 1113.) Petitioners have not demonstrated such a policy and practice by DWR. Therefore, mandate is the proper remedy for petitioners' piecemealing claim under CEQA.

studies and their environmental effects. Hence, petitioners conclude, the environmental effects of developing and operating a conveyance facility must be considered and analyzed together with the environmental effects of the geotechnical studies in an environmental document under CEQA.

Contrary to petitioners' contention, DWR is not required to analyze the environmental impacts of the BDCP with its analysis of the environmental impacts of the overwater and land geotechnical studies. The holding of *Laurel Heights* does not require the analysis of future environmental consequences which are "unspecified and uncertain" and where "no purpose can be served by requiring sheer speculation about future environmental consequences." (*Laurel Heights, supra,* 47 Cal.3d at p. 395, quoting *Lake County Energy Council v. County of Lake* (1977) 70 Cal.App.3d 851, 854-855.) What, if any, water conveyance facility will be developed and implemented under the BDCP remains a matter of speculative possibility until water conveyance alternatives have been defined, evaluated and actually selected for development and implementation. At this time, a water conveyance facility under the BDCP cannot be characterized as a foreseeable consequence of the geotechnical studies.

Further, it is doubtful that the development of a water conveyance facility under the BDCP could reasonably change the scope or nature of the geotechnical studies. The studies are a short-term data collection activity; neither their scope nor their environmental effects will change with the development of a water conveyance facility.

The environmental impacts of the geotechnical studies need not be analyzed together with either the BDCP or the non-geotechnical field studies.

Does CEQA require an environmental impact report ("EIR") for the project?

Petitioners contend that the environmental impacts of the project must be analyzed in an EIR rather than an MND because substantial evidence in the administrative record supports a fair argument that the project may have significant impacts on sensitive aquatic species, particularly green sturgeon, Chinook salmon and delta smelt. According to petitioners, substantial evidence indicates that the overwater

studies of the project may generate significant levels of noise injurious to these fish species, may release contaminants that adversely affect the fish, and may have a significant cumulative impacts. Such impacts, in petitioners' view, require a mandatory finding of significance and the preparation of an EIR.

--Noise

The Initial Study for the project identifies sensitive species with the potential to occur in the project area from resources of the United States Fish and Wildlife Service ("USFWS") and the California Department of Fish and Game ("DFG"), including delta smelt, Chinook salmon and green sturgeon. (See AR 202, 206-207, 223, 225, 229.) Upon an assessment of the potential impacts of the project upon these species, the Initial Study concluded that any impacts would be less than significant with specified mitigation and conservation measures. (AR 202, 206-207.) With respect to project noise, DWR concluded that the measured sound intensity levels of overwater drilling and the design of the overwater studies would reduce any adverse impacts of noise on listed species to insignificance. (AR 190, 203, 231, 315.)

DWR measured decibel levels produced by the rotary drilling rig engine and SPTs at the water surface using a Cel Dig Sound Survey Meter. The decibel level produced by drilling at approximately 1 meter from the activity was 86.8 to 88; the decibel level produced by drilling at approximately 15 meters from the activity was 55; and the decibel level produced by SPTs at 1 meter from the activity was 92-96.4. (AR 317; Petitioners' Request for Judicial Notice in Support of Petitioners' Opening Brief, Exhibit C, ¶ 16.) These water surface or "air" measurements were converted to reflect the decibel or sound intensity levels of the drilling and SPTs underwater pursuant to a method based on the pressure difference between air and water. (AR 317; Petitioners' Request for Judicial Notice in Support of Petitioners' Opening Brief, Exhibit C, ¶ 17. See http://www.fas.org/man/dod-101/sys/ship/acoustics.htm#conversion.) Pursuant to such a conversion, a SPT measured at 90 decibels in the air was estimated to have a sound intensity underwater of approximately 152 decibels, a level below the levels for

injury to listed fish in the "Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities" between the National Oceanic and Atmospheric Administration Fisheries, USFWS, DFG, the California, Oregon and Washington Departments of Transportation, and the United States Federal Highway Administration. (AR 231, 316; Petitioners' Request for Judicial Notice in Support of Petitioners' Opening Brief, Exhibit C, ¶ 16, Exhibit 4. See AR 65-66.)

To avoid or minimize impacts on the listed fish from noise produced by overwater drilling and SPTs, the project design limited drilling and SPTs to a "working window" of August 1 to October 31 recognized by the National Marine Fisheries Service ("NMFS"), USFWS and DFG as a period when the listed species are expected to be in low abundance. (AR 65, 76, 147, 172, 229, 230-231, 316.) The drilling and SPTs were also limited to the hours between sunrise and sunset to accommodate the nocturnal behavior of juvenile green sturgeon. (AR 231.) The duration of drilling at any location was not expected to exceed 60 days, and the SPTs were to be performed at every 5 feet of vertical drilling depth from 10 to 15 times a day, less than a minute to a few minutes in duration each time, and 30 to 40 strikes per minute. (AR 172, 175, 190, 316-317.)

Because the overwater studies of the project were located within the waters of the United States, DWR applied for and obtained a permit to conduct the studies from the United States Army Corps of Engineers, the agency having regulatory jurisdiction over the waters. (AR 135-137, 177.) The permit authorized DWR to perform the studies subject to the terms and conditions set forth in an USFWS Biological Opinion for "incidental take" under the federal Endangered Species Act (AR 68-121), a NMFS letter of concurrence (AR 62-67), and a Section 401 water quality certification issued by the Corps. (AR 136.)

The USFWS Biological Opinion indicated that project noise and vibration could disturb the behavior of the delta smelt but were not likely to have a significant adverse effect on the federally listed threatened delta smelt because the project activities were minor in scope and duration and all project activities would be conducted between

August 1 and October 31, a work window prescribed in the "Formal Programmatic Consultation on the Issuance of Section 10 and 404 Permits for Projects with Relatively Small Effects on the Delta Smelt" when fish are at their lowest abundance in the waterways. (AR 76.) Similarly, the NMFS letter of concurrence concluded that the project may affect but is not likely to adversely affect federally listed endangered Chinook salmon, threatened green sturgeon, or their critical habitat for two reasons: there was a low likelihood that salmon would be present in the project area during geotechnical boring activities and, if green sturgeon were present during the activities, estimated peak sound intensity level to which they would be exposed was below that of the "Agreement in Principle for Interim Criteria For Injury to Fish from Pile Driving Activities" and likely to be insignificant. (62, 63, 65-66.)

Petitioners dispute both the reliability of DWR's measurements of the sound intensity levels for overwater drilling and SPTs and the effectiveness of the project design in reducing the impacts of drilling and SPT noise on listed species to a level of insignificance. Citing the analysis and opinions of their consultant, Erik Ringelberg, petitioners contend that substantial evidence in the administrative record supports a conclusion that the noise produced by the drilling and SPTs may adversely impact the listed species. However, the consultant's analysis and opinions are vague, speculative and lack a factual basis in a number of ways.

First, petitioners' consultant indicated that the sound levels measured at the water surface and converted to underwater sound levels by DWR were not a reliable assessment of in-water hydroacoustics. (AR 382, 457.) According to the consultant, the measurements did not take into account noise from the boat engine or the drilling rig engine; did not measure the frequencies of the noise produced by these engines or by the drilling and SPTs, a factor affecting the distance traveled by sound underwater; and did not consider the reverberation of sound in the water of a shallow, narrow channel as opposed to an open bay. (AR 381-382.) In the consultant's view, in-water hydroacoustic

testing was necessary to accurately measure the underwater levels of sound which are amplified and more intense than the levels of sound in air. (AR 382, 459-460.)

The consultant's views about DWR's measurements of project sound intensity levels are generalized, conclusory and not supported by data specifically indicating the extent of any amplification of underwater sound by the frequencies of noise from rotary drilling and SPTs or by the actual topography of the waterways where the drilling occurs. Similarly, the consultant provided no indication of the extent to which, if at all, the established methodology used by DWR to convert its in-air measurements of drilling and SPT sound intensity levels to underwater levels understated the underwater levels. The consultant also speculated about noise from the boat engine while the boat was anchored to prevent drifting during drilling, and the consultant did not appear to recognize that DWR's measurements included noise from the drilling rig. The consultant's views, accordingly, do not cast doubt on the reliability of DWR's measurements and do not constitute credible evidence of potential noise from project drilling and SPTs.

Second, petitioners' consultant criticized DWR's estimate of the duration of drilling activity, that noise from SPTs will last approximately one minute for a total of 10 to 15 times a day. The consultant indicated that DWR's estimate was contrary to his observations of identical in-water drilling activities in 2009 which lasted considerably longer than a minute. (AR 382, 456.) On the basis of those observations, the consultant concluded that DWR underestimated the duration of project drilling, the noise produced by the drilling, and the significance of impacts on listed fish species from the full duration of the noise. (AR 383.)

In reaching this conclusion about DWR's estimate of the duration of drilling activity, the consultant ignored the plain language describing the project in the Initial Study and MND. That language clearly indicated that drilling at any location was not expected to exceed 60 days, that the SPTs were to be performed every 5 feet of vertical drilling depth from 10 to 15 times a day; and that the duration of an SPT was less than a minute to a few minutes with 30 to 40 strikes per minute. (AR 172, 175, 190, 316-317.)

The language did not suggest that project drilling and the noise it produced apart from SPTs would last only a few minutes. The consultant's conclusion that DWR underestimated the duration of drilling activity in the Initial Study and MND is clearly wrong.

Third, petitioners' consultant observed that the MND failed to identify the hydroacoustic impacts of project noise on the listed fish, including potential physical injuries and behavioral disruptions. (AR 381.) In support of this observation, the consultant and petitioners referenced a number of studies on noise impacts on fish. Most of the referenced studies, however, have limited, if any, relevance to the impacts of noise produced by the rotary rig drilling and SPTs of the project. The referenced studies typically assessed the impacts of noise produced by pile driving or dredging (AR 467-484, 12013-12014, 9482-9483, 9825-9830), which produce noise considerably different in character and intensity than project noise. (AR 317 (contrasting energy produced by SPT hammer with that produced by pile-driving hammer).) Indeed, one of the studies on which the consultant relied cautioned that the criteria for protection of fish from exposure to pile driving sound should not be used for other sounds because the signals produced by pile-driving differed in critical ways from the signals produced by the other sounds. (AR 471, 472, 474, 478.) In addition, the criteria for protection of fish from pile driving sound appear to be well above DWR's measurement of the 150-decibel sound level produced by project drilling and SPTs underwater. (See AR 478, 9484 (studies by McCauley et al. finding damage to inner ears of aquatic vertebrates by high-energy sound levels of approximately 180 decibels), 9826 (sound exposure thresholds of >206 decibels peak and 183 decibels cumulative)).

In concluding that project noise entailed potentially significant alterations of the behavior of listed fish, the consultant relied on a biological opinion by NMFS on the impacts of pile driving on Chinook salmon, delta smelt and green sturgeon during the construction of the South Delta Temporary Barriers Project. (AR 11939.) That biological opinion used a noise level of "150 decibels root mean square" as a threshold at

which adverse behavioral effects may occur in exposed fish (AR 12004, 12013), a threshold that seems to approximate DWR's measurement of underwater noise produced by project drilling and SPTs. The consultant, however, failed to consider how NMFS used the threshold in assessing the potential impacts of pile-driving noise on the fish: NMFS found that the impacts would be minimal because the impacts were temporary, the pile driving was limited in duration and in area, and the impacts would likely be limited to avoidance behavior in which the fish moved away from the area of disturbance. (AR 12014.)

In effect, the consultant failed to consider the NMFS threshold for behavioral alterations in fish within the context of the project design and scope. Considering the project design and scope, USFWS determined that the 152-decibel level of noise produced by project drilling and SPTs would not have a significant adverse impact on delta smelt because the project was minor in scope and duration and would be conducted between August 1 and October 31 when fish are at their lowest abundance in the waterways.[5] (AR 76.) The NMFS determined that impacts to Chinook salmon were discountable due to the low likelihood of their presence in the project area during the project activities and that, should the green sturgeon be present during the project activities, project impacts were likely to be insignificant due to the estimated sound peak sound intensity of drilling below the level in the Agreement in Principle for Interim Criteria for Injury to Fish. (AR 65-66. See also AR 147 (DFG streambed alteration agreement limiting project work to period between August 1 and November 30); 43 (401

[5] Petitioners' consultant commented that the work window of August 1 through October 31 was not justified. (AR 375.) In support of this comment, the consultant mentioned (but did not provide a copy of) an NMFS document indicating a work window ending September 15 and provided excerpts from two reports regarding the presence of listed fish in the project area during drilling. (*Ibid.*) The consultant's comment is confusing in light of the NMFS letter of concurrence, stating that the time period from August 1 to October 31 "complies with the "accepted in-water work window for NMFS species in the Delta (AR 63), the EFH consultation in the NMFS letter of concurrence indicating that the project in-water work schedule avoids Pacific salmon presence in the watershed during geotechnical boring actions (AR 66), and the USFWS biological opinion indicating that the work window is prescribed in a formal programmatic consultation. (AR 76.) In addition, the excerpts of the two reports in the record do not clearly establish that the reports even pertain to the project area in the Delta (AR 399-400) or the project work period. (AR 401-405.)

water quality certification order by Central Valley Regional Water Quality Control Board, recognizing work window of August 1 through October 31).)

Fourth, petitioners' consultant recommended in-water hydroacoustic monitoring during all project water activities to monitor compliance with applicable decibel guidance and limits. (AR 381.) Petitioners argue that the presence of an environmental scientist on board project vessels, for the purpose of observing the immediate area for potentially sensitive environmental resources and/or unauthorized discharges, is inadequate as a means of monitoring or mitigating the noise impacts. (AR 179.) Petitioners ignore the requirements for ceasing work when a sensitive species is encountered by the on-board monitor as well as other avoidance measures protective of sensitive species. (AR 181, 183.)

Thus, the observations and conclusions of petitioners' consultant regarding the impact of project noise on listed fish are general and inapplicable or unconnected to actual project activities and conditions. As such, the consultant's observations and conclusions are without substance or relevance to an analysis of the project's noise impacts. The observations and conclusions do not present expert opinion in conflict with the determinations of the MND that project noise impacts are reduced to a level of insignificance with mitigation, do not support a fair argument that the noise impacts are potentially significant, and do not require the preparation of an EIR for the project.

--Contaminants

The overwater geotechnical studies of the project were designed to avoid significant impacts to listed fish species resulting from discharges or leakages of contaminants into the water. (AR 203.) Spills of the contaminants, which include bentonite clay used in the drilling fluid and cement used in grouting the bore hole upon completion of drilling and SPTs, are prevented by a closed system for drilling and sampling. (AR 179.) Any spill is controlled by emergency response and control plans. (AR 179-180.) And bore holes are sealed as the drilling apparatus is removed. (AR 173.)

The drilling apparatus is contained in a conductor casing, 6 to 8 inches in diameter, that extends from the boat or barge deck through the water column to 10 or 15 feet below the slough or river bottom and remains there until drilling and SPTs are completed. (AR 173.) The drill hole below the casing is 3.5 to 5.5 inches in diameter. (*Ibid.*) All drilling rods, samplers and related equipment pass through the inside of the casing. (*Ibid.*) The drilling fluids and cuttings are confined by the casing and narrower bore hole walls, then returned through the casing to the boat or barge deck, through a tee connection at the head of the conductor casing, into a drilling fluid recirculation tank. (*Ibid.*) A heavy plastic sleeve is provided over the conductor casing to prevent seepage from the annular space between the casing and the tank, the probable cause of several spills while drilling in October 2009. (AR 175, 18523.) The drill and sample rods are disconnected over the casing or recirculation tank, and spill stoppage materials are placed around the work area on the boat and barge decks. (AR 175.) Once the drill cuttings have settled out in the recirculation tank, the cuttings are transferred to 55-gallon storage drums adjacent to the tank, using good work practices to avoid spills and picking up any spill immediately with a flat blade shovel. (*Ibid.*)

Each completed bore hole is grouted with bentonite and cement from the bottom of the hole to approximately 10 to 15 feet below the river bottom using the *tremie* method to prevent grout migration into the slough or river water. (*Ibid.*) After the grouting is completed and the hole is sealed, the conductor casing is pulled out of the hole, through the water column, to the boat or barge deck. (*Ibid.*)

An environmental scientist on the boat or barge observes drilling activities to determine whether all drilling fluid and cuttings are confined in the recirculation tanks and storage drums and monitors the water for colored or opaque turbidity plumes, an indication that contaminated material may be leaking into the water. (AR 12, 14, 175, 179. 181, 183.) In the event of a contaminant spill, all drilling activity is stopped and an emergency response and spill control plan is implemented by staff who have been trained in emergency response and spill control. (AR 14, 15, 175, 179-180, 182.)

A stream alteration agreement between DWR and DFG reinforces the mitigation measures included in the MND. (AR 139-153.) Pursuant to the agreement, DWR is required to prepare and implement a comprehensive hazardous materials control and spill prevention and response plan prior to project activity. (AR 145-146.) In addition, the agreement limits project work to the period between August 1 and November 30 and requires a qualified biological monitor to monitor implementation of conservation or mitigation measures. (AR 147.)

The USFWS' biological opinion concerning the project and the Army Corps of Engineers' permit approval for project activity within the waters of the United States also reinforce the mitigation measures in the MND. The biological opinion requires DWR to implement all the proposed conservation measures listed in the MND's Project Description and to have all best management practices and spill prevention plans for the project in place before, during and after the project. (AR 120.) The Corps' permit approval requires DWR's compliance with the terms and conditions of the USFWS biological opinion as well as project mitigation measures identified in the NMFS letter of concurrence. (AR 135-136. See AR 65-66.)

On the basis of the project design and mitigation measures, DWR concluded in the Initial Study and MND for the project that the impacts to listed fish species and their habitat from contaminant discharges caused by the project were less than significant with mitigation. (AR 1, 202.) NMFS' letter of concurrence (AR 65-66) reached the same conclusion with respect to green sturgeon and Chinook salmon, as does USFWS' biological opinion with respect to delta smelt. (AR 76.)

Petitioners dispute DWR's conclusion and contend that substantial evidence in the administrative record supports a fair argument that the geotechnical overwater studies of the project carry a significant risk of hazardous materials spills, creating contaminated sediment plumes that would adversely affect listed fish species physically and behaviorally. Petitioners further contend that the risk was realized by five spills during DWR's overwater drilling operations in October 2009, releasing bentonite clay in drilling

fluid into the Sacramento River and Fourteen Mile Slough in unknown amounts. (See AR 18970, 18976-18978, 18987).

Relying on the conclusions of their consultant, petitioners argue that the MND proposes no effective mitigation measures to reduce the risk of contaminant spills to less than significant levels. The consultant concluded that the MND failed to identify mitigation measures preventing contaminants from entering the water, particularly when the conductor casing was removed at the completion of drilling and sampling a bore hole, and recommended the establishment of a project-specific spill prevention plan, spill control practices and spill control equipment for handling and transporting toxic substances. (AR 377-379.) In the consultant's view, no mitigation measures other than on-deck spill protection were proposed in the MND. (AR 379-380.) Petitioners add that various mitigation measures in the MND -- including measures related to monitoring by an environmental scientist, corrective actions to take if sensitive species are encountered, and implementation of a hazardous materials control and spill prevention and response plan -- lack specificity and performance-based criteria, thereby impermissibly deferring to the future formulation of the mitigation measures. (See CEQA Guideline 15126.4(a)(1)(B); *Sacramento Old City Assn. v. City Council of Sacramento* (1991) 229 Cal.App.3d 1011, 1029-1030.)

Petitioners' contentions are plainly without merit. The Initial Study and MND detail a closed system for confining drilling fluids and preventing their release or entry into the water during drilling operations. The effectiveness of this closed system in confining the drilling fluids and preventing spills was substantially increased with the addition of a heavy plastic sleeve over the conductor casing after several leakages in October 2009; with the addition of the plastic sleeve to prevent seepage between the conductor casing and the recirculation tank system, no further spills occurred. (AR 18523.) Neither petitioners nor their consultant have presented credible evidence of a significant risk of contaminant releases from the project's closed drilling system to the water. Rather, without relation to the actual design of the closed system, they have

speculated generally about a risk of contaminant releases and about the escape of drilling fluids and cement grout from the conductor casing upon its removal from a bore hole.

In addition, there is no basis for petitioners' contention that, in contravention of CEQA Guidelines and case law (CEQA Guideline 15126.4(a)(1)(B); *Sacramento Old City Assn. v. City Council of Sacramento* (1991) 229 Cal.App.3d 1011, 1029-1030), measures to mitigate contaminant spills lack specificity and that formulation of effective and enforceable mitigation measures is deferred to the future. The monitoring responsibilities and tasks of an environmental scientist are evident from the provisions of the MND, requiring him or her to observe the work area for potentially sensitive environmental resources and/or unauthorized discharges (AR 179), to act as a biological monitor (AR 181), and to monitor implementation of the conservation measures itemized in the MND. (AR 179-180, 183.) Performance criteria for plans to prevent, control and respond to any spill are also clear and specific: upon a contaminant spill, project work must stop immediately and the DWR Environmental Scientist, DFG, NMFS and USFSW must be notified (AR 179-180); upon observing a turbidity plume indicating the release of contaminant material into the water, a biological monitor must immediately notify drillers and geologists, and project operations may not resume until the source of the leak is identified and remedied to the satisfaction of DFG (AR 182); contaminants may not be allowed to enter the stream or be placed where they may be washed into the stream (AR 181); contaminant materials from drilling must be placed in a holding facility and removed for proper disposal (AR 181-182); prior to project activity, DWR must prepare and implement a hazardous materials control and spill prevention and response plan, and DFG must approve the plan to verify that the plan incorporates on-site handling rules to keep drilling materials out of waterways, measures to prevent contaminants from entering the water, procedures to clean up spills and notify the Regional Water Quality Control Board and DFG immediately, and provisions for periodic inspection during project activity. (AR 182.)

Petitioners have presented no substantial evidence to support a fair argument that the potentially significant adverse impacts of contaminant material releases into the habitat of listed fish species by project drilling operations are not avoided and mitigated to a level of insignificance. A project EIR is not required in these circumstances.

--Mandatory Finding of Significance

Petitioner contends that the impacts upon listed species as a result of project noise and water quality degradation from contaminant material spills and emissions has the potential to reduce the population of listed fish species and thus requires a mandatory finding of significance and the preparation of an EIR. Petitioners base this contention on CEQA Guideline section 15065(a), which mandates a finding of significance and the preparation of an EIR for a project when there is substantial evidence in light of the whole record that the project has the potential to considerably degrade the quality of the environment, reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of an endangered, rare or threatened species.

A mandatory finding of significance and the preparation of an EIR for the geotechnical studies project is not warranted pursuant to CEQA Guideline section 15065(a). As indicated previously in this ruling, petitioners have not presented substantial evidence in light of the whole record that the project has the potential to adversely impact endangered Chinook salmon, threatened green sturgeon, threatened delta smelt or their critical habitat. DWR correctly determined in the Initial Study for the project that project impacts to those listed fish species and their habitat would be less than significant with mitigation. (See AR 272-273.)

--Cumulative impacts

Petitioners contend that DWR failed to adequately assess, pursuant to CEQA Guideline 15064(h)(1), whether the cumulative impacts of the project are significant, whether project's effects are cumulatively considerable, and thus, whether an EIR must

be prepared for the project. Petitioners argue that evidence in the administrative record supports a fair argument that the project's incremental impacts on biological resources, particularly fish, are cumulatively considerable when viewed in connection with the impacts of past projects, current projects and probable future projects in the delta. Therefore, petitioners conclude, DWR must prepare an EIR for the project. (See CEQA Guideline 15065(a)(3).)

In the Initial Study for the project, DWR determined that the project would have less-than-significant cumulative impacts because it had no long-term impacts. (AR 272.) The project's impacts -- noise levels and small vibrations produced primarily by the drill rig engine and short durations from the standard penetration tests -- were minor, localized and short term; were avoided by project design; or were mitigated to a level of insignificance. (AR 272-273.) In other words, DWR determined that the project would have no incremental effects.

DWR's determination is correct, and petitioners' contention to the contrary is rejected. Petitioners have not presented any substantial evidence upon which to base a fair argument that project noise and risk of contaminant releases may have a significant impact on listed fish species and are cumulatively considerable. In the absence of substantial evidence of any potentially significant effect, DWR was entitled to conclude that the effects of the project would not be cumulatively considerable and was not required to prepare an EIR on the basis of cumulative impacts. (*Sierra Club v. West Side Irrigation Dist.* (2005) 128 Cal.App.4th 690, 701-702.

Did DWR comply with CEQA notice and recirculation requirements?

DWR distributed a notice dated June 14, 2010, that it intended to adopt the MND for the geotechnical studies project. (AR 15440.) The notice was sent to the clerks of the five counties where the project would be performed: Sacramento, Contra Costa, Yolo, San Joaquin and Solano. (AR 30-41, 15440-15442.) The notice indicated that a public comment period was open from June 15, 2010 to July 15, 2010. (AR 15440.)

DWR distributed a notice dated July 1, 2010, that it intended to adopt a supplemental MND for the project. (AR 27.) The notice was sent to the clerks of the five counties where the project would be performed and indicated that the supplemental MND was proposing minor technical changes to the MND. (AR 49-58, 15443-15447.) The notice stated that a public comment period was open from July 1, 2010 to July 31, 2010. (*Ibid.*) The technical changes proposed in the supplemental MND consisted of additional depth at approximately 20 boring locations, approximately five additional days of drilling at those 20 locations, and additional tests to characterize soils, liquefaction potential and shear wave velocities for seismic stability analysis. (AR 167, 176-177.)

--Adequate Notice of Comment Period?

Petitioner contends that neither the notice dated June 14, 2010 nor the notice dated July 1, 2010 provided the 30-day public notice required by CEQA. (See Pub. Resources Code §§ 20192, 20192.3.) DWR responds that it provided more than the 30-day notice because the notice of intent to adopt a supplemental MND essentially extended the notice provided to more than 30 days.

The Court finds that DWR exceeded the 30-day notice required by Public Resources Code by extending the public comment period to July 31, 2010. This extension resulted in additional notice, which the agency may provide pursuant to CEQA Guideline 15072(c). Members of the public were not deprived of the 30-day notice they were entitled to receive under Public Resources Code section 20192.

--Need for Recirculation of MND?

Petitioner contends that DWR was required by CEQA Guideline 15073.5 to recirculate the MND because it had to be revised after public notice of its availability but prior to its adoption. Petitioner indicates that new mitigation measures in the supplemental MND for the protection of biological resources, highlighted by underlining, reflected a determination by DWR that the mitigation measures in the draft MND would not reduce potential project impacts to less than significance and, thus, that new measures were required. (See CEQA Guideline 15073.5(b). The new mitigation measures also

reflected, in petitioners' view, DWR's identification of new avoidable significant project impacts on biological resources. (*Ibid.*)

DWR points out that the underlined text in the supplemental MND consisted of the terms and conditions of Dig's Streambed Alteration Agreement and the USFWS biological opinion issued for the project. According to DWR, those terms and conditions were incorporated into the supplemental MND in accordance with previous notice in the draft MND, that "any additional avoidance actions or conservation measures established by [USFWS and DFG among other permitting agencies] would be followed. (See AR 181 (Administrative Measure 6).) Thus, DWR contends that the underlined text did not add any new measures to mitigate any new significant impact to biological resources. Rather, in DWR's view, the underlined text reflected its preexisting project design, not mitigation measures.

The Court finds that the underlined text did not trigger the provisions for recirculation under CEQA Guideline 15037.5(b). As DWR contends, the underlined text simply updates the MND with permit terms and conditions which reflected the project design and were referenced in the draft MND. The underlined text does not reflect any new analysis of significant impacts or the adoption of new mitigation measures.

RULING

The petition is denied. Respondent is directed to prepare, serve and submit a proposed judgment in accordance with Rule 3.1312 of the California Rules of Court.

Dated: November 2, 2011

LLOYD G. CONNELLY
JUDGE OF THE SUPERIOR COURT

CERTIFICATE OF SERVICE BY MAILING (C.C.P. Sec. 1013a(4))

I, the Clerk of the Superior Court of California, County of Sacramento, certify that I am not a party to this cause, and on the date shown below I served the **RULING ON SUBMITTED MATTER** by depositing true copies thereof, enclosed in separate, sealed envelopes with the postage fully prepaid, in the United States Mail at 720 9th Street, Sacramento, California, each of which envelopes was addressed respectively to the persons and addresses shown below:

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I, the undersigned Deputy Clerk, declare under penalty of perjury that the foregoing is true and correct.

SUPERIOR COURT OF CALIFORNIA
COUNTY OF SACRAMENTO

Dated: November 3, 2011

By: C. BEEBOUT, _____
Deputy Clerk