

Chapter 1

INTRODUCTION

The California Department of Fish and Game (CDFG) has prepared this Draft Subsequent Environmental Impact Report (DSEIR) to provide the public, responsible agencies, and trustee agencies with information about the potential environmental effects of the proposed Suction Dredge Permitting Program (Program or Proposed Program). This DSEIR was prepared in compliance with the California Environmental Quality Act (CEQA) of 1970 (as amended), the State CEQA Guidelines (California Code of Regulations [Cal. Code Regs.] title 14, section (§) 15000 et seq.), and pursuant to the December 2006 Court Order issued by the Alameda Superior Court which stemmed from the May 2005 legal challenge to the existing permitting program (*Karuk Tribe of California et al. v. California Department of Fish and Game* [Super. Ct. of Alameda County, 2005, No. RG05211597]).

1.1 Program Background

The use of vacuum or suction dredge equipment for instream mining is currently prohibited in California by state law (Fish and Game Code [Fish & G. Code] § 5653.1, added by Stats. 2009, ch. 62, § 1 (SB 670 [Wiggins])). The following is a history of suction dredge mining and CDFG's roles and authority. The current moratorium on suction dredging is discussed in more detail toward the end of this section.

Small-scale suction dredge mining activity in California began in the 1960's and peaked in the late 1970's and early 1980's, when gold prices were high. The CDFG administers a permitting program governing the use of vacuum and suction dredge equipment pursuant to Fish and Game Code section 5653 et seq. (Appendix A). The previous regulations promulgated by CDFG governing suction dredge mining are found in Title 14 of the California Code of Regulations, commencing with section 228. The existing regulatory regime governing the activity as administered by CDFG is rooted in statutory amendments to the Fish and Game Code that took effect in the late 1980's. CDFG promulgated the previous regulations governing suction dredge mining in California consistent with this statutory authority in 1994. Under the statute and regulations, any California resident or non-resident could obtain a suction dredge mining permit from CDFG upon payment of a fee specified by statute. The permits issued by CDFG authorize suction dredge mining throughout California subject to the terms and conditions set forth in the regulations. On average, CDFG has issued approximately 3,200 suction dredge mining permits to California residents annually for the last 15 years prior to the current moratorium established in July 2009. The comparable figure for non-resident suction dredge mining permits issued by CDFG was 450.

CDFG promulgated the previous regulations governing suction dredge mining in 1994 after preparing and certifying an environmental impact report (EIR) (State Clearinghouse Number 93102046) under CEQA (hereafter, 1994 EIR). CDFG considered proposed amendments to the regulations governing suction dredge mining in 1997, releasing a draft subsequent EIR for public review that same year (hereafter, 1997 Draft SEIR). However, the

1997 Draft SEIR was never completed or certified, and the proposed amendments were not adopted.

CDFG's current effort under CEQA stems from a legal challenge to the existing permitting program initiated in Alameda County Superior Court in May 2005 (*Karuk Tribe of California et al. v. California Department of Fish and Game* [Super. Ct. of Alameda County, 2005, No. RG05211597]). The *Karuk* lawsuit focused on the Klamath, Scott and Salmon River watersheds in northern California, and included allegations regarding impacts to various fish species, such as coho salmon (*Oncorhynchus kisutch*), and contended that CDFG's administration of the suction dredging program violated CEQA and various provisions of the Fish and Game Code. In February 2006, various mining interests and a number of individuals joined the lawsuit by court order as party interveners. In December 2006, the Alameda County Superior Court issued an order with the consent of all parties, directing CDFG to "conduct further environmental review pursuant to CEQA of its suction dredge mining regulations and to implement, if necessary, via rulemaking, mitigation measures to protect coho salmon and/or other special status fish species in the watershed of the Klamath, Scott, and Salmon rivers, listed as threatened or endangered after the 1994 EIR" (hereafter, December 2006 Court Order). For purposes of CEQA, the December 2006 Court Order describes CDFG's legal obligations in terms of Public Resources Code Section 21166 and related provisions in the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15162 - 15164). The December 2006 Court Order left it to CDFG's discretion to determine the scope and nature of the environmental review to be completed under CEQA.

As part of its effort to comply with the December 2006 Court Order, CDFG issued a public notice in October 2007, soliciting information regarding the environmental impacts that may occur in California as a result of suction dredge mining under CDFG's existing permitting program (Cal. Reg. Notice Register 2007, No. 42-Z, p. 1783, October 19, 2007) (hereafter, October 2007 Public Notice). In so doing, CDFG sought information from interested members of the public and various public agencies relevant to the following issues:

- Whether suction dredge mining results in adverse impacts to the environment;
- Whether suction dredge mining under CDFG's previous regulations governing such activities results in deleterious effects to fish;
- Whether there are changed circumstances or new information available since 1994 regarding suction dredge mining and the environment generally; and
- Whether changed circumstances or new information available since 1994 indicates that suction dredge mining under CDFG's previous regulations results in new significant or substantially more severe environmental impacts than previously considered by CDFG in the 1994 EIR.

In response to the October 2007 Public Notice, CDFG received comments from approximately 70 federal, state, and local agencies; various tribal, environmental, and mining interests; representatives of the academic and consulting community; and members of the public. Based on this information, CDFG informed the Alameda County Superior Court on January 7, 2008, that it had determined it could not proceed with the court-ordered environmental review in reliance on an addendum prepared pursuant to CEQA (see generally Cal. Code Regs., tit. 14, § 15164). CDFG indicated to the court at the same time that more than minor additions or changes to the 1994 EIR would be necessary and that statewide issues would need to be addressed in a subsequent environmental document in

1 order to fulfill CDFG's obligations under CEQA. On February 26, 2008, CDFG informed the
2 Alameda County Superior Court that it intended to prepare a subsequent environmental
3 impact report (SEIR) that would be statewide in scope in order to comply with the
4 December 2006 Court Order.

5 This SEIR and related review under CEQA analyzes new significant and substantially more
6 severe environmental impacts that may be occurring under the existing permitting program
7 that were not addressed by CDFG during prior environmental review completed in 1994.
8 The proposed project, for the purposes of this SEIR, consists of the proposed amendments
9 to CDFG's previous regulations governing suction dredge mining throughout California, and
10 suction dredging activities conducted consistent with those amendments (see Chapter 2).
11 (See generally Cal. Code Regs., tit. 14, § 228 et seq.) This proposed project is referred to as
12 the "Proposed Program" or simply the "Program" throughout this document. Given the
13 existing court order prohibiting CDFG from issuing new permits, along with the temporary
14 moratorium on new permits and instream suction dredge mining in California established
15 by statute, this SEIR analyzes the potentially significant environmental effects that may
16 occur with the Proposed Program relative to a "no dredging" environmental baseline.

17 With respect to proposed amendments to the existing regulations, CDFG is charged by the
18 Fish and Game Code to issue suction dredge permits where CDFG determines, consistent
19 with the regulations, that the operation will not be deleterious to fish (Fish & G. Code, §
20 5653, subd. (b).). Any proposed amendments to CDFG's previous regulations governing
21 suction dredge mining must be promulgated in compliance with the Administrative
22 Procedures Act (APA) (Gov. Code, § 11340 et seq.). CDFG is conducting "formal rulemaking"
23 under the APA to promulgate the proposed amendments to the previous suction dredge
24 mining regulations concurrently with the related environmental review of the Program as
25 required by CEQA. The scope of the proposed amendments to the previous regulations is
26 discussed below in more detail.

27 As mentioned above, the use of vacuum or suction dredge equipment for instream mining is
28 currently prohibited in California by state law (Fish & G. Code, § 5653.1, added by Stats.
29 2009, ch. 62, § 1 (SB 670 (Wiggins))). As signed into law by Governor Schwarzenegger and
30 effective August 6, 2009, SB 670 (Wiggins) established a temporary moratorium on
31 instream suction dredge mining in California, even with an existing permit issued by CDFG.
32 The new law also prohibits CDFG from issuing any new permits under the previous
33 regulations. The statewide moratorium on instream suction dredge mining and the related
34 prohibition on the issuance of new permits will remain in place until CDFG completes the
35 environmental review required by the December 2006 Court Order; CDFG adopts, as
36 necessary, updates to the previous regulations; and any such updates become effective.
37 (Fish & G. Code, § 5653.1, subd. (b).)

38 CDFG is also subject to a separate court order prohibiting the issuance of any new suction
39 dredge permits under the previous regulations. Issued by the Alameda County Superior
40 Court as a preliminary injunction on July 9, 2009, the order specifically prohibits CDFG from
41 expending any money from the California General Fund in connection with the suction
42 dredge permitting program. The court clarified on July 27, 2009, that the order and
43 preliminary injunction prohibits CDFG from issuing any new permits under the previous
44 regulations. The order and preliminary injunction will remain in place pending further
45 court order or other direction from the Alameda County Superior Court. (*Hillman et al. v.*
46 *California Dept. of Fish and Game*, Super. Ct. Alameda County, 2009, No. RG09434444, order
47 filed July 10, 2009.)

1.2 Overview of CEQA Requirements

CEQA is the cornerstone of environmental law and policy in California. CEQA's primary objectives are to:

- ensure that the significant environmental effects of proposed activities are disclosed to decision makers and the public;
- identify ways to avoid or reduce environmental damage; prevent environmental damage by requiring implementation of feasible alternatives and/or mitigation measures;
- make public the reasons for agency approval of projects with significant environmental effects;
- foster multidisciplinary interagency coordination in the review of projects; and
- enhance public participation in the planning process.

With certain strictly limited exceptions, CEQA requires all state and local government agencies to consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects. It establishes both procedural and substantive requirements that agencies must satisfy to meet CEQA's objectives. For example, the agency with decision-making authority (the lead agency) must first assess whether a proposed project would result in significant environmental impacts. If the project could result in significant environmental impacts, CEQA requires that the agency prepare an EIR, analyzing both the proposed project and a reasonable range of potentially feasible alternatives.

As described in the CEQA Guidelines (Cal. Code Regs., tit. 14, § 15121 subdiv. (a)), an EIR is a public information document that assesses potential environmental effects of a proposed project as well as identifies mitigation measures and alternatives to the project that could reduce or avoid potentially significant environmental impacts (Cal. Code Regs., tit. 14, § 15121 subdiv. (a).) Other key requirements include developing a plan for implementing and monitoring the success of the identified mitigation measures, and carrying out specific noticing and distribution steps to facilitate public involvement in the environmental review process.

The EIR is an informational document used in the planning and decision-making process. It is not the purpose of an EIR to recommend either approval or denial of a project. Consistent with CEQA requirements, CDFG has engaged in a good faith, reasonable effort towards full public disclosure of potential project effects. Note that an EIR does not expand or otherwise provide independent authority of the lead agency to impose or address project-related significant environmental impacts beyond that authority that is already within the lead agency's jurisdiction.

1.3 Scope and Intent of this Document

This DSEIR has been prepared in accordance with CEQA, under which the Proposed Program constitutes a "project." That is, in proposing to amend the previous regulations and

issue suction dredge permits consistent with the proposed regulations, CDFG is proposing to carry out and approve a discretionary project subject to CEQA. CDFG will use the analyses presented in this DSEIR, and the public response to them, to evaluate the Proposed Program's environmental impacts and to further modify, approve, or deny approval of the Proposed Program based on the analyses provided herein.

1.3.1 Type of EIR: Subsequent EIR

A state or local lead agency prepares an SEIR when, after having prepared and certified an earlier EIR for the same project, new information, changed circumstances, or project changes are proposed that involve new significant or substantially more severe environmental effects not previously addressed in the earlier EIR. (*Id.*, § 15162, subd. (a); Pub. Resources Code, § 21166.) An SEIR is also appropriate where the prospect of such new or more severe environmental effects exist and more than minor additions or changes to the earlier EIR are necessary to provide meaningful, updated environmental review. (See Cal. Code Regs., tit. 14, § 15163, subd. (a).)

CDFG has determined that preparation of the SEIR is necessary for its existing suction dredge mining permitting program in order to comply with the December 2006 Court Order in the *Karuk* litigation. (See Fish & G. Code, § 5653.1, subd. (b)(1).) The SEIR is also necessary for CDFG to meet its broader obligations with respect to the suction dredge permitting program under CEQA. (Pub. Resources Code, § 21166; Cal. Code Regs., tit. 14, § 15162.) For purposes of CEQA, CDFG has determined that the continued issuance of suction dredge mining permits under the existing permitting program could result in new significant or substantially more severe environmental impacts than previously disclosed in the 1994 EIR. Because the 1994 EIR was statewide in scope, and because CDFG believes that new significant or substantially more severe environmental impacts could occur throughout the state (rather than limited to the watersheds of the Klamath, Scott and Salmon rivers, the geographic area at issue in the *Karuk* litigation), this SEIR is most appropriately statewide in scope. Similarly, CDFG believes the SEIR is necessary because more than minor revisions or changes to the 1994 EIR will be required, particularly with the recent enactment of SB 670 (Wiggins) and the issuance of the preliminary injunction in the *Hillman* litigation. It is the intent of this SEIR to analyze the potentially significant environmental impacts associated with the Proposed Program on a statewide basis.

Importantly, CDFG is preparing the SEIR under CEQA pursuant to Public Resources Code section 21166. The SEIR is being prepared, in particular, in connection with CDFG's permitting program for suction dredge mining in California. (See generally Fish & G. Code, §§ 5653, subd. (b), 5653.9.) For purposes of CEQA, the SEIR focuses on suction dredging activities associated with the overall permitting program, including proposed amendments to the previous regulations, issuance of permits consistent with the regulations, and related suction dredging activities. The issuance of individual suction dredge mining permits consistent with any regulations adopted by CDFG is a key component of the proposed project for purposes of CEQA in the present case. In other words, the subsequent issuance of individual suction dredge mining permits consistent with regulations adopted by CDFG under Fish and Game Code section 5653.9 is an important aspect of the discretionary project being analyzed in the SEIR that CDFG proposes to carry out and approve for purposes of CEQA.

1 That said, certain suction dredging activities under the proposed regulations would require
2 notification under Fish and Game Code section 1602 (see discussion in Section 1.4.6, below,
3 for greater details on these requirements). Individuals intending to engage in suction
4 dredging subject to the section 1602 notification requirement must still obtain a suction
5 dredge mining permit from CDFG pursuant to Fish and Game Code section 5653. Additional
6 independent review and related final action by CDFG under Fish and Game Code section
7 1602 et seq. will also be required before the dredging activity subject to the required
8 notification occurs, including appropriate environmental review by CDFG under CEQA of
9 the specific proposal at issue. The environmental effects expected with the suction
10 dredging operations subject to the section 1602 notification are addressed in detail in the
11 SEIR to the extent feasible at this juncture based on the statewide scope of the proposed
12 Project. The related analysis in the SEIR reflects CDFG's reasonable, good faith effort in the
13 present context to identify and analyze the expected environmental effects that may occur
14 with individual suction dredging activities subject to the section 1602 notice requirement
15 and additional independent review by CDFG.

16 Because the Proposed Program involves the adoption of regulations, the SEIR will serve as
17 the functional equivalent environmental analysis under CDFG's related "certified regulatory
18 program" (CRP). (See generally Pub. Resources Code, § 21080.5; Cal. Code Regs., tit. 14, §
19 15251, subd. (n); Cal. Code Regs., tit. 14, § 777.5 et seq.) In general, CRPs as approved by
20 the Secretary for Natural Resources provide a functional equivalent process for state
21 agencies to prepare analysis and conduct related environmental review under CEQA for
22 certain types of projects that fall within the CRP. In general, environmental documents and
23 related review conducted pursuant to an approved CRP are exempt from Chapter 3 and a
24 limited number of other provisions in CEQA. However, all other CEQA provisions and
25 policies apply. (Pub. Resources Code, § 21080.5, subd. (c).) In the present case, CDFG is
26 preparing the SEIR pursuant to Public Resources Code Section 21166, a section of CEQA
27 that does not fall within the limited exemptions for CRPs provided by section 21080.5. For
28 this and other important reasons, CDFG has prepared the SEIR and conducted related
29 environmental review of the Proposed Program in accordance with CEQA generally, also
30 following the rulemaking process for regulations under the Proposed Program as set forth
31 in CDFG's related CRP and APA (Gov. Code, § 11340 et seq.).

32 Finally, it bears noting that this SEIR extends beyond the scope of a typical SEIR, in that it
33 presents a comprehensive evaluation of the full range of potential environmental impacts,
34 including topics which were previously addressed in the 1994 EIR. The 1994 EIR, in
35 general, utilized a fairly broad and qualitative approach in evaluating impacts. To bring
36 additional specificity and clarity to the impact discussion and conclusions, this SEIR revisits
37 many of these topics, even where there is not information to suggest that there may be new
38 significant or substantially more severe environmental effects than were evaluated in the
39 1994 EIR. In large part, the change in existing environmental conditions at the time of
40 preparation of these planning documents lends to the increased scope of this report
41 compared to a typical SEIR. As explained in more detail below, the *Hillman* injunction and
42 the passage of SB 670 prohibiting CDFG from issuing new suction dredge permits
43 necessitate a change in baseline conditions from which to assess potential effects, as
44 compared to an environmental baseline that includes ongoing suction dredging activities
45 consistent with the existing regulations in Title 14 as analyzed in the 1994 EIR.

1.3.2 Baseline Conditions

Under CEQA, the environmental setting or “baseline” serves as a gauge to assess changes to existing physical conditions that will occur as a result of a proposed project. Per CEQA Guidelines (Cal. Code Regs., tit. 14, §15125), for purposes of an EIR, the environmental setting is normally the existing physical conditions in and around the vicinity of the proposed project as those conditions exist at the time the Notice of Preparation (NOP) is published. As underscored by appellate case law, however, the appropriate environmental baseline for a given project may be different in certain circumstances in order to provide meaningful review and disclosure of the environmental impacts that will actually occur with the proposed project.

In the present case, CDFG has determined that a conservative approach to identifying the environmental baseline is appropriate. As described above, instream suction dredge mining is currently prohibited in California pursuant to a state law enacted shortly before the publication of the NOP for this SEIR. (Fish & G. Code, 5653.1, added by Stats. 2009, ch. 62, § 1 (SB 670 (Wiggins).) The same law and a related court order also prohibit CDFG from issuing new suction dredge permits. CDFG has determined that the appropriate environmental baseline for purposes of CEQA and the analysis set forth below is one that assumes no suction dredging in California, because that was (and remains) the state of the regulatory and physical environment at the time the NOP was published. The SEIR provides a “fresh look” at the impacts of suction dredge mining on the environment generally.

1.4 CEQA and Rulemaking Process

Proposed amendments to CDFG’s previous regulations governing suction dredge mining must be promulgated in compliance with the APA (Gov. Code, § 11340 et seq.). The “formal rulemaking” under the APA to promulgate amendments to the existing suction dredge mining regulations is running concurrently with the related environmental review of the SEIR required by CEQA, as they are both considered the Program. Figure 1-1 illustrates the relationship between these dual processes. The following discussion explains the steps in the CEQA and rulemaking process.

1.4.1 Initial Study/Notice of Preparation

An NOP for the Proposed Program was prepared pursuant to CEQA Guidelines (Cal. Code Regs., tit. 14, § 15082) and circulated on October 26, 2009. The NOP presented general background information on suction dredging, the scoping process, the environmental issues to be addressed in the SEIR, and the anticipated uses of the SEIR. The NOP also included the Initial Study which provided a preliminary, relatively brief environmental impact analysis for the Proposed Program. The Initial Study identified the less-than-significant effects expected to result from the Program, thus enabling the SEIR to address in more substantive detail the environmental topics with potentially significant effects. The Initial Study also described the Program as envisioned by CDFG at that time. Information contained in the NOP (activity descriptions, program description, range of topics, etc.) was further refined based on the input received in public comments on the NOP and is reflected in the text of this SEIR. The NOP and Initial Study are included in this SEIR in Appendix B.

1.4.2 Scoping Comments and Meetings

In order to provide the public and regulatory agencies an opportunity to ask questions and submit comments on the scope of the SEIR and regulation amendments, public scoping meetings were held during the NOP review period. The CDFG conducted scoping meetings on consecutive days in three different locations throughout the state given the Program's standing as a "project of statewide, regional, or area wide significance." These scoping meetings were held in Fresno, Sacramento and Redding to solicit input from the public and interested public agencies regarding the nature and scope of environmental impacts to be addressed in the draft SEIR and regulation amendments.

The Scoping Meetings were held at the following locations:

- Fresno, CA - November 16, 2009, 5:00 to 8:00 pm. Held at the California Retired Teachers Association building (3930 E. Saginaw Way, Fresno, 93726);
- Sacramento, CA - November 17, 2009, 5:00 to 8:00 pm. Held at the West Sacramento City Hall Galleria (1110 West Capitol Avenue, West Sacramento, 95691);
- Redding, CA - November 18, 2009, 5:00 to 8:00 pm. Held at the Shasta Senior Nutrition Programs Main Facility (100 Mercy Oaks Drive, Redding, 96003).

All three meetings used the same format, and interested parties were invited to attend one or all meetings. At the beginning of each meeting, CDFG made a brief presentation in order to provide an overview of the existing program, the legal background leading to this SEIR, the objectives and range of information to be included in the Program, and the CEQA process generally. Afterwards, an interactive session followed, where CDFG staff was available to answer questions and provide information about the Program. CDFG accepted prepared written comments during the meetings, as well as during the 30-day scoping period which concluded on December 3, 2009. Comment forms were also distributed at the scoping meetings for submission of written comments during or after the meeting.

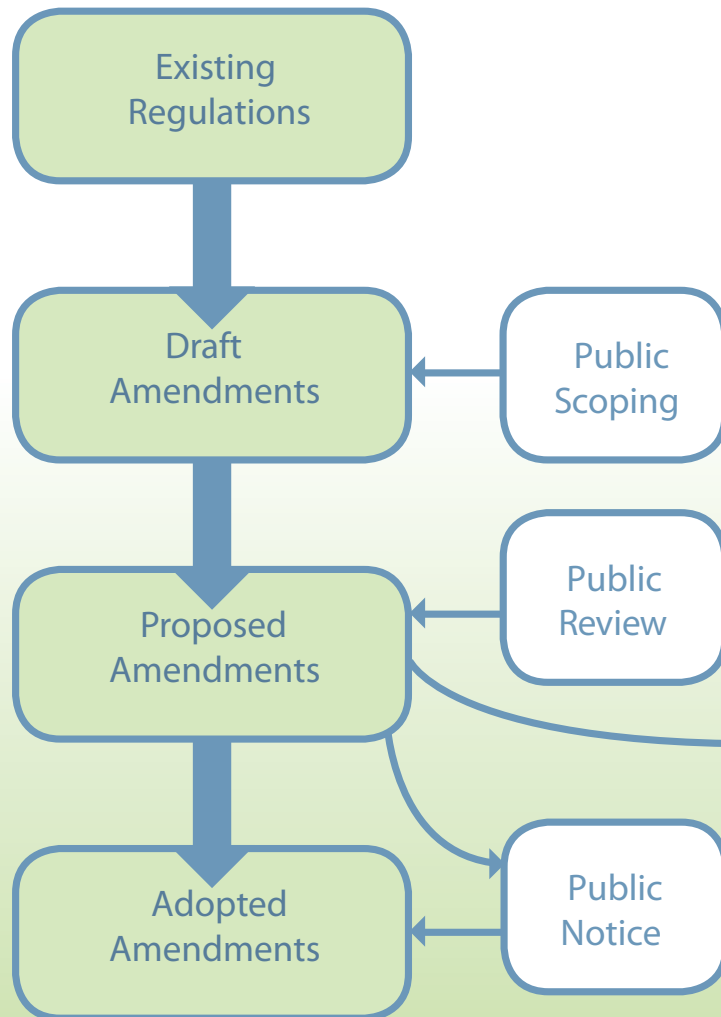
In addition to notices mailed to interested parties, scoping meeting information was published in local newspapers and CDFG's website (www.dfg.ca.gov) prior to the events to solicit attendance.

During the scoping period, 284 comment letters were received. These comments have been summarized, as well as included in their entirety, in a Scoping Report, which is included in this SEIR as Appendix C.

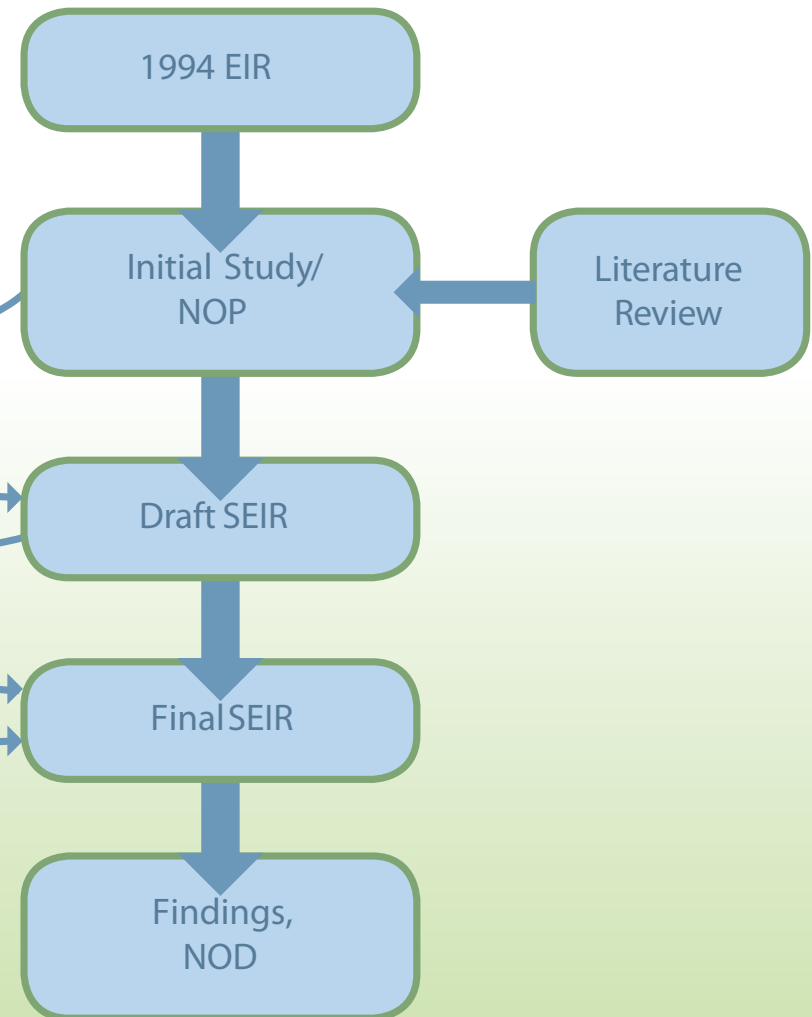
1.4.3 Draft SEIR and Draft Regulations

The primary purpose of the SEIR is to analyze and disclose the direct and reasonably foreseeable indirect physical environmental impacts that may occur as a result of the Proposed Program. As stated earlier, for the purposes of the SEIR, the Proposed Program consists of the draft regulations contained in Chapter 2 and the suction dredging activities expected to occur consistent with those regulations. The Initial Study served to identify the related, potentially significant environmental impacts to be addressed in detail in the DSEIR. The Initial Study also served to inform CDFG's development of the specific proposed amendments to the previous regulations consistent with CDFG's statutory mandate to issue suction dredge permits, but only where the underlying operation will not result in

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deleterious effects to fish. The DSEIR, as informed by the Initial Study and related public and agency input, provides analysis and disclosure of the potentially significant environmental impacts associated with suction dredge mining under CDFG's permitting program and, where any such impacts are significant, potentially feasible mitigation measures and alternatives that substantially lessen or avoid such effects are identified and discussed.

1.4.4 Public Review and Meetings

The DSEIR and draft regulations are currently undergoing public review for a minimum of 60 days. During this period, CDFG will hold a total of five public meetings in different locations throughout the state. One meeting will be held in each of the following locations: Santa Clarita, Fresno, Sacramento, Redding and Yreka. The meetings will begin with a brief overview of the analysis and conclusions set forth in the DSEIR, as well as a brief overview of the proposed amendments to the previous regulations. This introductory presentation will then be followed by the opportunity for interested members of the public to provide oral comments to CDFG regarding the Proposed Program and the SEIR under CEQA and the APA. Commenters may provide oral or written comments, or both.

The dates, times, and exact locations of the public meetings will be published in local newspapers prior to the events and are included in the Notice of Availability of this SEIR.

1.4.5 Final SEIR and Proposed Regulations

Written and oral comments received in response to the DSEIR will be addressed in a Response to Comments document which, together with the DSEIR and any related changes to the substantive discussion in the DSEIR, will constitute the Final SEIR. In addition, CDFG will consider the comments received to refine, as necessary, the proposed amendments to the previous regulations. The Final SEIR, in turn, will inform CDFG's exercise of its discretion as a lead agency under CEQA in deciding whether or how to approve the Proposed Program as prescribed by the Fish and Game Code.

1.4.6 Further Notification Requirements

As previously indicated, the Proposed Program as analyzed in this SEIR, is the issuance of permits by CDFG pursuant to the draft proposed regulations (detailed in Chapter 2). Any person that intends to engage in suction dredge mining as defined must obtain a suction dredge permit from the California Department of Fish and Game pursuant to Fish and Game Code section 5653 et seq., though certain circumstances also require notification under Fish and Game Code section 1602 (notification of Lake or Streambed Alteration). In general, Fish and Game Code section 1602 requires an entity to notify the CDFG of any proposed activity that may substantially modify a river, stream, or lake. Certain methods of suction dredging, or activities performed to facilitate suction dredging, require notification to the CDFG pursuant to Fish and Game Code section 1602 subdivision (a), in addition to obtaining a valid suction dredging permit. These activities include:

- Use of motorized winches or other motorized equipment for the movement of instream boulders or wood to facilitate suction dredge activities;

- Temporary or permanent flow diversions, impoundments, or dams constructed for the purposes of facilitating suction dredge activities;
- Suction dredging within lakes or reservoirs; and
- Use of a dredge with an intake nozzle greater than 4 inches in diameter.

Where a notification pursuant to Fish and Game Code section 1602 subdivision (a) is made, an on-site inspection and approval by the CDFG is required. Approval of such operations may require individual CEQA analysis at a project-specific level of detail. In these cases, information contained within this SEIR may be used to support such site-specific tiered evaluations.

1.5 Other Related Activities

As part of preparing this SEIR, CDFG has engaged in several activities which, while not strictly a part of the CEQA or rulemaking process, have supported the development of and analysis contained within the SEIR.

1.5.1 Literature Review

Though not a CEQA requirement, a review of the scientific literature was conducted to develop a better understanding of the existing information associated with suction dredging and its effects (both beneficial and adverse) on the environment. In particular, the literature review focused on information that has become available since the previous environmental analysis completed in 1994. During this step, all relevant information was gathered, reviewed, and assessed, with the resulting body of data used for the Initial Study assessment. The Literature Review is included in this SEIR as Appendix D.

As part of the Literature Review, a review of the existing regulations applicable to suction dredging in other states was conducted. A tabular comparison showing each state's regulatory requirements for suction dredge mining is included in Appendix E of this SEIR.

1.5.2 Suction Dredger Surveys

CDFG conducted a survey of suction dredge permit holders. This survey was an update of a similar survey conducted in 1994. The voluntary survey was designed to gather current information regarding the general characteristics of suction dredging, and the expenditures made by suction dredgers as part of the activity. The information generated by the survey has been used to support the CEQA and rulemaking processes for the Program.

The survey was sent to a random selection of 1,100 California residents, and 500 non-residents, who purchased suction dredge permits in 2008. 734 residents and 337 non-residents returned the survey. The survey and a summary of results are provided in Appendix F.

1.5.3 Public Advisory Committee

Based on suggestions received during the public scoping process, CDFG convened a Public Advisory Committee (PAC) for the Program. The overall goal of the PAC was to assist CDFG in exploring potential regulatory approaches to help with development of proposed

regulations for suction dredging. By establishing a collaborative environment, CDFG intended that the PAC would provide input on technical issues relevant to the regulatory development effort. CDFG considered recommendations of all stakeholders. Ultimately, the responsibility to develop new regulations belongs to CDFG.

The PAC was comprised of individuals who are knowledgeable regarding suction dredging, the environmental processes found in streams where dredging activities occur, and/or regulatory issues associated with suction dredging and streams. The members provided a local perspective – as well as topical and on-the-ground knowledge – and had the ability to work collaboratively with people with views different from their own.

The PAC had a diverse membership, including 25 individuals representing federal agencies, county governments, environmental/conservation and mining interests, private industry, the Karuk Tribe, and scientists. The group met on February 11th and 25th, and on March 11, 2010. All three meetings included presentations on a variety of topics. Topics included existing regulations, geomorphology, water quality, mercury, an overview of dredge mining, mining techniques known as power sluicing and high banking, what's changed since the 1994 regulations were adopted, CDFG enforcement history and capabilities, and Tribal fish allocations and harvesting techniques. All the presentations were provided to help increase the PAC's collective understanding of issues pertinent to suction dredging. The discussions and questions that followed each of the presentations have been very informative for CDFG.

The PAC provided valuable input for CDFG's consideration. Specifically, the PAC provided specific suggestions on which components of the 1994 regulations should be considered for inclusion in a future regulatory program. In addition, a few PAC members provided ideas as to how to evaluate potential impacts to fish and the environment. The PAC provided a forum for sharing information and knowledge on a wide range of topics that collectively offered particularly helpful insights for CDFG's consideration.

A summary of the PAC process and outcomes is provided in Appendix G.

1.5.4 Socioeconomic Report

A Socioeconomic Report (Appendix H) has been prepared that provides socioeconomic information to support the conclusions presented in the Economic and Fiscal Impact Statement (Standard Form 399), as part of the APA process. The information in that report focuses on the economic contribution that suction dredging activities makes to regional and local economies in California. In addition, the report addresses the socioeconomic implications of existing and potential conflicts between suction dredging activities and other beneficial uses. The report also includes information on the amount of gold collected by dredgers.

The Socioeconomic Report first describes economic conditions pertaining to suction dredging activity in California in 2008, which was the most recent full year that suction dredging was permitted in California. This information provides a foundation for assessing the effects of the proposed program and other program alternatives on the impacts of suction dredging activities on regional and local economies, and of potential changes in beneficial use conflicts.

The socioeconomic report relies upon responses from holders of suction dredge permits in 2008 and there is no independent analysis available to corroborate estimates of suction dredging effort or expenditures. This type of survey is subject to two forms of bias. The first is “recall bias” and is caused by the lapse of time from the conduct of an activity to the later point in time when the activity is documented. Although the exact nature and magnitude of error introduced by “recall bias” is uncertain, similar studies on hunting and fishing activities suggest that longer recall periods tend to produce larger estimates of the activity. The second type of bias is “strategic bias”. This occurs when a respondent provides a response with the intent to influence an outcome from the use of that data. This is more of a concern in studies where theoretical questions are posed, than it was in this survey. However, it is possible that some respondents chose to increase their estimate of time spent suction dredging or their economic investment in the activity.

The SEIR made use of the survey data primarily to estimate the location and amount of suction dredge activity throughout the State. In the event that either “recall bias” or “strategic bias” occurred in association with this survey, these errors are believed to increase the possibility that a particular impact would be considered significant. In that context, determinations made in this Draft SEIR that a particular impact is less than significant tend to be conservative. Said another way, the likelihood of making a mistake in concluding that an impact is not significant, is reduced.

Note that socioeconomic effects are not considered environmental impacts under CEQA, unless they have relevance to a significant physical impact. The impact analysis therefore makes use of the socioeconomic information as appropriate where such a nexus exists.

1.6 Organization of this DSEIR

This DSEIR contains the following components.

Executive Summary. A summary of the Program, a description of the issues of concern, Program alternatives, and a summary of environmental impacts are provided in this chapter.

Chapter 1, *Introduction*. This chapter describes the purpose and organization of the SEIR and its preparation, review and certification process.

Chapter 2, *Program Description*. This section summarizes the Program, including: a description of the Program purpose and objectives; a brief description of the Program area and areas where the suction dredge mining historically occurs; the Program applicability; proposed updates to the regulations; and related permits and approvals associated with the activity.

Chapter 3, *Activity Description*. This section describes the activities associated with suction dredge mining, including: a summary of the existing regulations; a brief history of gold mining operations in California leading up to, and including, suction dredge mining; and a description of the equipment and methods associated with operation of the activity.

Chapter 4, *Environmental Setting and Impact Analysis*. This chapter begins with an introductory section which identifies resource areas determined not to be affected by the Program. Chapter 4 includes ten subchapters which describe existing environmental conditions and the Proposed Program's anticipated potentially significant environmental impacts. The following resource topics are addressed in Chapter 4:

- 4.1 *Hydrology and Geomorphology,*
- 4.2 *Water Quality and Toxicology,*
- 4.3 *Biological Resources,*
- 4.4 *Hazards and Hazardous Materials,*
- 4.5 *Cultural Resources,*
- 4.6 *Aesthetics,*
- 4.7 *Noise,*
- 4.8 *Recreation,*
- 4.9 *Transportation and Traffic, and*
- 4.10 *Mineral Resources.*

Chapter 5, *Other Statutory Considerations*, addresses the Proposed Program's potential to contribute to cumulative impacts. Chapter 5 outlines the Proposed Program's potential to induce growth; and identifies significant, irreversible environmental changes resulting from the Program.

Chapter 6, *Alternatives Analysis*, describes the process through which alternatives to the Proposed Program were developed and screened; evaluates their likely environmental impacts; and identifies the environmentally superior alternative.

Chapter 7, *Report Preparation*, lists the individuals involved in preparing this SEIR.

Chapter 8, *References*, provides a bibliography of printed references, web sites, and personal communications used in preparing this Draft SEIR.

Appendix A contains Fish and Game Code section 5653 et seq.

Appendix B contains the Initial Study and NOP issued by CDFG.

Appendix C contains the Scoping Report and comments received on the NOP.

Appendix D presents the literature review that was prepared for the SEIR.

Appendix E presents the review of existing regulations applicable to suction dredging in other states that was conducted as part of the literature review.

Appendix F contains the suction dredger survey and an overview of the results.

Appendix G contains the summary of the PAC meetings.

Appendix H contains the socioeconomic report on the regulatory amendments.

Appendix I describes habitat types likely to occur in or adjacent to Proposed Program activities.

Appendix J contains species lists generated from the California Natural Diversity Database.

Appendix K describes the life histories of *Fish* action species

Appendix L describes species-based restrictions on Proposed Program activities.

Appendix M contains information regarding the management of invasive species.

1.7 Impact Terminology

This Draft SEIR uses the following terminology to describe environmental effects of the Proposed Program.

- A finding of *no impact* is made when the analysis concludes that the Program would not affect the particular environmental resource or issue.
- An impact is considered *less than significant* if the analysis concludes that there would be no substantial adverse change in the environment and that no mitigation is needed.
- An impact is considered *significant* or *potentially significant* if the analysis concludes that there could be a substantial adverse effect on the environment.
- An impact is considered *significant and unavoidable* if the analysis concludes that there could be a substantial adverse effect on the environment and no feasible mitigation measures are available to reduce the impact to a less-than-significant level.
- An impact is considered *beneficial* if the analysis concludes that there would be a positive change in the environment.
- *Mitigation* refers to specific measures or activities adopted to avoid an impact, reduce its severity, or compensate for it.
- A *cumulative impact* can result when a change in the environment results from the incremental impact of a project when added to other related past, present, or reasonably foreseeable future projects. Significant cumulative impacts may result from individually minor but collectively significant projects. The cumulative impacts analysis in this SEIR focuses on whether the Proposed Program's incremental contribution to other impacts caused by past, present, or probable future projects is cumulatively considerable (i.e., significant).

1.8 Units of Measurement

Both the metric and English systems of measurement are used throughout this document. In general, quantitative values are reported in units that allow for the simplest interpretation of the data. For example, water quality parameters are generally reported in metric units such as milligrams per kilogram (mg/kg), whereas description of dredge equipment (e.g., nozzle size) is reported in standard units.

1.9 Submittal of Comments

CDFG is now circulating this DSEIR for a 60-day public review and comment period which will end on April 29, 2011. CDFG will host five public meetings during this period. The purpose of public circulation and the public meetings is to provide agencies and interested individuals with opportunities to comment on or express concerns regarding the contents of the DSEIR. Specific dates, times and locations for these meetings will be provided in the Notice of Availability, on CDFG's website, and through several other methods.

For those interested, written comments or questions concerning this Draft SEIR should be submitted within this review period and directed to the name and address listed below.

Submittal of written comments via e-mail (Microsoft Word format) would be greatly appreciated.

California Department of Fish and Game
Attn: Mark Stopher
Suction Dredge Program Draft SEIR Comments
601 Locust Street
Redding, CA 96001

e-mail: dfgsuctiondredge@dfg.ca.gov

All documents mentioned herein or related to this Program can be reviewed online at the Program Website (<http://www.dfg.ca.gov/suctiondredge>).

Written comments received in response to the Draft SEIR during the public review period will be addressed in a new Response to Comments chapter of the Final SEIR.