

H.B.M.W.D. FEB 24 2012

**LONG-TERM
LAKE AND STREAMBED ALTERATION AGREEMENT
No. R1-2010-0093**

By and Between

THE CALIFORNIA DEPARTMENT OF FISH AND GAME

and

THE HUMBOLDT BAY MUNICIPAL WATER DISTRICT

January 6, 2012

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CALIFORNIA DEPARTMENT OF FISH AND GAME
Northern Region
Coastal Habitat Conservation
619 2nd Street
Eureka, California 95501

Notification No. R1-2010-0093

LONG-TERM LAKE AND STREAMBED ALTERATION AGREEMENT

This LONG-TERM LAKE AND STREAMBED ALTERATION AGREEMENT (LTSAA), a 15-year Agreement for activities to be undertaken by THE HUMBOLDT BAY MUNICIPAL WATER District ("District") is entered into following signature by both Parties, the CALIFORNIA DEPARTMENT OF FISH AND GAME ("DFG"), an agency of the State of California, and the District.

These entities may be referred to collectively as "Parties" and each individually as a "Party."

Recitals and Purposes

- A. The District provides water for municipal and industrial uses. The District operates Matthews Dam within Trinity County, California where it stores and releases water for power generation and for re-diversion downstream in accordance with established water rights. The District operates 6 points of diversion including Ranney Collectors (Pump Stations No. 1, 2, 3, 4, and 5) and surface flow intake (Pump Station No. 6) near Blue Lake (Essex Reach) within Humboldt County, California. The District installs and maintains instream berms and other structures for bank stabilization, to ensure flows are properly directed below Matthews Dam and at those points of diversion within the Essex Reach and for other purposes. The District manages vegetation and maintains some roads at its operational sites. The District's operations are covered by an Habitat Conservation Plan (HCP) and a Consistency Determination (CD) as described below.
- B. DFG has jurisdiction over the conservation, protection, restoration, enhancement, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species under State law, including California Fish and Game Code (FGC) §1600 *et seq.* Existing fish or wildlife resources the project could substantially adversely affect include: Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*O. kisutch*), steelhead trout (*O. mykiss*), coastal cutthroat trout (*O. clarki clarki*), longfin smelt (*Spirinchus thaleichthys*), green sturgeon (*Acipenser medirostris*), eulachon (*Thaleichthys pacificus*), Pacific lamprey (*Lampetra tridentate*), western pond turtle (*Actinemys marmorata*), foothill yellow legged frog (*Rana boylei*), willow flycatcher

(*Empidonax traillii*), other non-game and game fishes, amphibians, reptiles, aquatic invertebrates, mammals, birds, and other aquatic and riparian species.

- C. The District notified DFG on or about June 7, 2010, (Notification No. R1-2010-0093), requesting a LTSAA pursuant to FGC §1602 and §1605(g), for instream activities which substantially alter the bed, bank, or channel of a stream.
- D. An Environmental Assessment was completed for the National Marine Fisheries Service (NMFS) in 2002. NMFS issued a Biological Opinion and an “incidental take permit” (federal ITP) for coverage of three species, including the Federally-listed coho salmon. DFG issued a Consistency Determination (State CD) for coho salmon under the California Endangered Species Act (CESA) (Tracking No. 2080-2005-016-01), for activities analyzed in the NMFS biological opinion and described in the HCP. These activities include the water impoundment and diversion and instream work and Operating Conservation Program activities described in the HCP, and are termed “Covered Activities.”
- D. The District has water right permits P011714, P011715, and P018347 for 48,030, 103,981.4 and 843,977.5 acre-feet of water per annum (afa), respectively. P011714 has a season of storage from October 1 to April 30. The season of diversion for P011715 and P018347 is January 1 to December 31 and the season of storage is October 1 to April 30 of up to 100,000 afa. Under P011715, the District may divert up to 116 cubic feet of water per second (cfs) and store 20,000 afa. The purposes of use for P011714 and P011715 are municipal and industrial and the purpose of use for P018347 is power.
- E. DFG has determined that certain of the “Covered Activities” may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or result in use of material from the streambeds. DFG has determined that those activities, identified in Section 2 (defined as “Authorized Activities”), shall be the subject of a LTSAA.
- G. The District and DFG acknowledge that this LTSAA is entered into with the understanding that its terms may be subject to amendment as agreed to over time based on the results of on-going monitoring activities and reporting, changed conditions, and new information.

Agreement

This LTSAA, by and between DFG and the District and pursuant to FGC §1602, as authorized for an extended period of 15 years in accordance with §1605(g), authorizes the District to conduct the Authorized Activities identified in Section 2 pursuant to this LTSAA provided the Authorized Activities are carried out in accordance with the approved HCP and this LTSAA, including all conservation conditions and measures. This LTSAA may be extended one time for a period not to exceed five years.

The District hereby agrees to incorporate, into the Authorized Activities identified in Section 2, the applicable conditions identified in this LTSAA in accordance with the following provisions. Where the District determines that conformance with any of the applicable conditions identified are not feasible, the District may propose site-specific conditions, or alternative conditions through a separate notification and agreement pursuant to FGC §1602, which shall be subject to the arbitration provisions of Section 1603(b). The Parties agree that activities subject to FGC §1602 not listed in Section 2, require separate notification and agreement.

The District and DFG further agree that the authority given to the District under this LTSAA applies to the District, its officers, directors, employees, agents, subsidiaries, contractors, and subcontractors, and their respective officers, directors, employees, and agents when conducting Authorized Activities subject to FGC §1600 *et seq.* For the sole purposes of this LTSAA, such individuals and entities shall be referred to as the "Authorized Entities." The District's Authorized Entities shall be deemed under the direct control of, and acting as agents of the District. The District shall conduct an on-going educational program, to fully inform all relevant District agents of the terms and conditions of this LTSAA. All contracts regarding the implementation of Authorized Activities between the District and contractors shall require their compliance with this LTSAA. The District shall be responsible for supervising Authorized Entities' compliance with the terms and conditions herein. For the sole purposes of this LTSAA, the District shall remain legally responsible for any Authorized Activities that District or its Authorized Entities implements. For purposes of this LTSAA, action includes failure to act when action is required by this LTSAA or under FGC. The District shall provide a copy of this LTSAA to all Authorized Entities performing or supervising Authorized Activities. Copies of this LTSAA shall be readily available at work sites at all times during periods of active work on Authorized Activities, and must be presented to any DFG personnel upon request.

The District and DFG agree that all provisions of this LTSAA as executed or amended remain in force throughout the term of the LTSAA. Any amendment of the LTSAA is subject to agreement by both Parties provided such amendment are agreed to in writing. Mutually approved amendments become part of the LTSAA and are subject to all previously negotiated provisions.

1.0 DEFINITIONS

Activity Any action that by itself would be subject to subdivision (a) of FGC §1602.

Agreement A lake or streambed alteration agreement issued by DFG.

Authorized Activities Those activities identified in Section 2 that are subject to FGC §1600 *et seq.* This LTSAA permits conduct of these Authorized Activities.

Berm Gravel curb constructed to control water.

CCR California Code of Regulations

Construction For this LTSAA, those activities that primarily involve work or placement of a structure or facility or associated fill into a stream, or on to its bed or bank.

Covered Activities The certain activities covered by the federal ITP and the State CD and described in the HCP, Section 5 and carried out by the District on Covered Lands.

Emergency A sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. Emergency includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage (Public Resources Code [PRC] §21060.3).

Erosion Controls Soil stabilization treatments, and any other features or actions to reduce surface erosion, gulying, channel erosion, and mass erosion (e.g., sediment barriers and sediment filter strips).

Feasible Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technical factors.

Gravel An unconsolidated mixture of rock fragments and pebbles ranging from 4-64 millimeters (mm) in diameter. Clean, screened gravel refers to the product after removal of sand and silt and the majority of the granule (2-4 mm) component.

Gradient Water surface slope in percent.

One Hundred-Year (100-Year) Flood Flow That magnitude of peak flow that is calculated as having the probability of being equaled or exceeded, once every 100 years. The 100-year flood flow is estimated by empirical relationships between precipitation and watershed characteristics and runoff, and may be modified by direct channel cross section measurements and local experience.

Work Isolation Area An on-site treatment where water diversion activities (e.g., cofferdams), or effective erosion control measures are established prior to proposed operations, and maintained concurrent with operations, to separate a work area from water, sediment or other pollutants, or sensitive species or habitats.

Maintenance Minor and routine activities undertaken to protect the instream revetment work.

Major Amendment An amendment that would, in the opinion of DFG, significantly modify the scope or nature of any project covered by the LTSAA or any measure included in the LTSAA to protect fish and wildlife resources, or require additional

environmental review pursuant to PRC §21000 *et seq.* or CCR, Title 14, §15000 *et seq.* and §699.5.

Minor Amendment An amendment that would not, in the opinion of DFG, significantly modify the scope or nature of any project covered by the LTSAA or any measure included in the LTSAA to protect fish and wildlife resources.

Penstock The pipe delivering water to the hydraulic turbines in Matthews Dam.

Riparian The banks and other adjacent terrestrial environs of lakes, streams and wet areas, where transported surface and subsurface freshwaters provide soil moisture to support mesic vegetation.

Spoil material Soil, rock and organic debris generated during construction, reconstruction, and deconstruction activities, and maintenance activities.

Substantial Means material, considerable, and measurable quantitatively or qualitatively. For this LTSAA, substantial applies to 1) actions that qualitatively or quantitatively change any aspect of stream or lake water flow such that wetted channel perimeter, water depth, velocity, direction or quality is visibly or measurably altered; and 2) alteration on any portion of bed, bank or channel including the hyporheic zone of the bed, vegetation on the banks, and placement or removal of materials, whether temporarily or permanently.

Substantial Change in Conditions One or more of the following: a) a change in Project Conditions - the work described in this LTSAA, including its Notification and Subnotifications, is substantially changed; b) a change in Biological or Physical Conditions –populations or other factors affecting fish and wildlife resources substantially change; c) a change in Legal Conditions due to regulations, Statutory Law or Judicial or Court decisions; and/or d) the work conducted under this LTSAA has adversely affected, or may adversely affect, fish and wildlife resources.

2.0 AUTHORIZED ACTIVITIES

FGC §1602 only applies to procedures or actions that will substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of any river, stream, or lake, or use of any materials from the streambeds, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. Activities of the District which are subject to FGC §1600 *et seq.* are termed “Authorized Activities.”

The District is authorized to undertake the activities identified in this section without the need to obtain any additional agreements provided the District conducts these Authorized Activities in accordance with the terms and conditions of the HCP, the State CD and this LTSAA, including any Site-Specific Conditions. This LTSAA has measures

to prevent adverse impacts to riparian and aquatic species not already covered by the HCP, ITP, and CD.

Diversion and Bypass Activities

- A. Diversion to storage of Mad River stream flows at Matthews Dam and downstream release from the dam of water to keep fish in good condition to meet FGC §5937.
- B. Diverting water in the Essex Reach by sub-surface means using Ranney collectors and from surface flow using a direct diversion facility.
- C. Bypass Mad River stream flows below the diversion facilities at the Essex Reach to provide for fish protective flows to meet FGC §5901.

Routine and Ongoing Maintenance Activities

- D. Clearing vegetation and debris and cleaning channel in order to maintain adequate capacity in the tailrace and spillway pools below Matthews Dam.
- E. Dredging of the forebay and removing aggraded material from intake area at the direct diversion facility (Pump Station No. 6).
- F. Maintaining adequate flow to Pump Station No. 6 during low-flow conditions by constructing a channel. Maintaining adequate water surface elevation to the direct diversion Pump Station No. 6 during low-flow months by construction of a gravel berm.
- G. Gaining access to and maintaining Ranney collectors, which may involve building temporary gravel structures in the bed of the Mad River to access the collectors.

Periodic, As-Needed, Maintenance Activities

- H. Protecting the stream banks and structures by maintaining or repairing existing rock structures or revetments in the Essex Reach, and in the tailrace outlet and plunge pool downstream of Matthews Dam.

3.0 NOTIFICATION FOR AUTHORIZATION TO PROCEED (“SUBNOTIFICATION”)

Prior to commencing any of the specific Routine and Ongoing or Periodic As-Needed Maintenance Authorized Activities identified in subsections D, E, F, G, and H of Section 2 above, the District shall notify DFG in writing of its intent to commence the activity (“subnotification”).

3.1 Scope of Subnotifications

Each subnotification shall be limited in scope to work that can reasonably be completed in **one year**, in accordance with conditions of this LTSAA, unless site-specific project conditions specify otherwise. If work at projects or sites within a subnotification is not undertaken within the subnotification time frames specified below, the District shall submit a new subnotification for those sites if work is still proposed.

No subnotification is needed for minor and routine maintenance of encroachments permitted under this LTSAA; however, maintenance of these sites shall adhere to conditions in this LTSAA.

3.2 Subnotification Process

3.2.1 Subnotification Process for Routine Maintenance Activities (Items D, E, F, and G)

The District shall submit to DFG a notice of the approximate dates Routine Maintenance work will begin based on the flows in the Mad River. This notice will provide DFG sufficient time to schedule field and office review of pending subnotifications.

DFG shall have 15 working days after receiving the subnotification¹ to review the subnotification to: 1) determine if the Authorized Activity is subject to this LTSAA; 2) concur with the subnotification; 3) contact the District to discuss the subnotification; 4) request more information; 5) propose site-specific conditions to protect fish and wildlife resources; or 6) contact the District to schedule a site visit.

DFG will provide the District contact person listed on the subnotification written documentation of the subnotification receipt date. If DFG does not contact the District, or no subnotification revision is requested within the 15 working day review period, the District may commence proposed activities on the 16th working day following subnotification receipt date.

If, following discussions, DFG and the District cannot come to mutual agreement regarding proposed site-specific conditions, the Parties shall resolve the disagreement in accordance with FGC §1603(b).

3.2.2 Subnotification Process for Periodic Maintenance Activities (Item H)

DFG shall have 15 working days after receiving the subnotification¹ to review the subnotification to: 1) determine if the Authorized Activity is subject to this LTSAA; 2) concur with the subnotification; 3) contact the District to discuss the subnotification; 4) request more information; 5) propose site-specific conditions to protect fish and wildlife resources; or 6) contact the District to schedule a site visit.

1 The subnotification receipt date is the date the local DFG Office (Attn: Coastal Habitat Conservation, 619 Second St., Eureka, California 95501) receives the subnotification, as indicated by a date stamp.

DFG will provide the District contact person listed on the subnotification written documentation of the subnotification receipt date. If DFG does not contact the District, or no subnotification revision is requested within the 15 working day review period, the District may commence proposed activities on the 16th working day following subnotification receipt date.

If DFG requests additional information, the 15-day subnotification review timeframe begins anew following DFG's receipt of all requested information. DFG will provide to the District documentation of the revised subnotification receipt date. At DFG's discretion, the revised subnotification receipt date may apply only to specific encroachments within a subnotification.

If DFG requests a site visit, it shall be conducted within 20 working days of receipt of the subnotification or revised subnotification information, unless natural ground conditions prohibit visiting the site within that time period, or the District and DFG mutually agree to extend the time period.

Within 15 working days of completing a site visit, DFG will concur with the proposed project as submitted, including conditions submitted by the District; propose additional site-specific conditions to protect fish and wildlife resources; or request additional information or discussion. If DFG considers the requested additional information and discussion as requiring more time, it shall notify the District that it is beginning anew the 15-day subnotification review timeframe.

If, following discussions, DFG and the District cannot come to mutual agreement regarding proposed site-specific conditions, the Parties shall resolve the disagreement in accordance with FGC §1603(b).

Any of the time periods described above may be extended by mutual agreement of both Parties.

3.3 Presumptions

DFG will presume that the Authorized Activity of which it was notified pursuant to the foregoing procedures is subject to this LTSAA. Therefore, unless DFG determines and notifies the District within 15 working days of the date the subnotification was received that the Authorized Activity is not authorized, or needs further information, review, discussion or a site visit, the District may commence such Authorized Activity in accordance with the terms of this LTSAA on the 16th working day following the subnotification receipt date.

It is DFG's intent to minimize time spent on office review of subnotifications and focus staff effort towards compliance and effectiveness monitoring of FGC §1602 and §1605 Agreements.

FGC §1602 and this LTSAA do not apply to procedures or actions that will not substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of any river, stream, or lake, or use any materials from the streambeds, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.

This LTSAA does not apply to emergency work that is immediately necessary to protect life or property. If the District completes emergency work, the District shall notify DFG of the work in accordance with FGC §1610. Notwithstanding the foregoing, this presumption shall not preclude DFG from taking any appropriate enforcement actions for any violation of the FGC, and any violations of this LTSAA.

3.4 Water Rights

Nothing herein constitutes a waiver by the District of its rights to divert, store, and re-divert its permitted water right.

3.5 Content of Subnotifications

Subnotifications shall consist of the following:

- A. A description of the Authorized Activities to be undertaken, including the type (e.g., water drafting, instream work), and scope of the work planned;
- B. Location information, including township, range, and section numbers, road numbers, the name of streams the Authorized Activity will affect, and a map of the work site with sufficient detail to enable a person who is not familiar with the area to easily locate the site;
- C. The name, address, and telephone number of the Contact Person;
- D. Detailed work plans that describe the project, including items such as:
 - 1. Construction drawings, diagrams or sketches, cross sections and dimensions, or any other information needed to fully convey to DFG the proposed project and existing conditions;
 - 2. Volumes of materials to be removed or added and estimates of the disturbed area involved;
 - 3. For permanent structures, calculations or other data used to determine 100-year flood flows and calculations and engineering plans or other data used to determine structure dimensions and flow capacity; and
 - 4. The applicable provisions of Section 10 of this document that will be applied to the Authorized Activities.

3.6 Revisions and Amendments

A subnotification may be revised during the review process prior to receiving authorization to proceed. Amendment fees do not apply to revisions during the subnotification review period.

Following authorization to proceed, when District may freely commence the activity in accordance with the terms of this LTSAA, changes to proposed projects described in a subnotification are usually considered minor amendments of subnotifications to the LTSAA. Amendment fees in Section 6.1 apply; and the amendment request must be accompanied by the amendment fee. Review time frames for amendments to subnotifications are the same as for subnotifications in Section 3.0.

The District may request to amend the LTSAA at any time provided the amendment request references the LTSAA No. and is accompanied by the amendment fee as specified in Section 3.5. Both minor and major amendments are permitted. Review time frames for amendments to the LTSAA shall be determined by mutual agreement of both Parties.

Review time frames for DFG-requested amendments to the LTSAA shall be determined by mutual agreement of both Parties.

4.0 TERM OF THE AGREEMENT

This LTSAA shall be valid for a period of 15 years from the date of all Parties signature, provided the State CD remains in effect for such period and the District continues to implement the Authorized Activities in accordance with the HCP and CD. Additionally, provided that the State CD and this LTSAA remain in effect, the District may request one five-year extension of this Agreement prior to the expiration date of this LTSAA in accordance with FGC §1605.

5.0 SUSPENSION, CANCELLATION, REINSTATEMENT, AND RECONSIDERATION

5.1 Scope of Suspension/Cancellation

DFG may suspend or revoke in its entirety the Agreement if it determines that the District, or any person acting on behalf of District, including the District agents, is not in compliance with the Agreement. DFG will limit the suspension or cancellation to specified Authorized Activities unless DFG, in its reasonable discretion, determines that the failure to comply is of such a substantial nature that it results in the suspension or cancellation of the entire LTSAA. Notwithstanding the foregoing, DFG and the District shall meet and confer in good faith in order to determine whether the District's ability to conduct the Authorized Activity can be restored, or a substitute LTSAA negotiated.

DFG shall notify the District of any suspension in writing. Any suspension shall take effect immediately upon receipt of such notice by the District, or in accordance with the instructions contained in the notice. Such notice will identify the reason(s) for the suspension or cancellation, the actions necessary to correct the deficiencies, and inform the District of the right to object to the proposed suspension or cancellation. Such notice may be amended at any time by DFG. The District may file a written objection to the proposed action within 45 calendar days of the date of DFG's notice.

The Regional Manager shall make a decision on the proposed suspension or cancellation within 45 days after the end of the objection period. DFG shall notify the District in writing of the decision regarding the suspension or cancellation and the reasons therefore. The Regional Manager may begin procedures to suspend or cancel the LTSAA if the District fails within 60 days of written notification to correct the deficiencies that were the cause of the suspension or cancellation. The Regional Manager may also begin procedures to cancel the LTSAA if statutory enactments subsequent to the execution or renewal of the LTSAA prohibit the continuation of the LTSAA or an Authorized Activity subject to this LTSAA. In such event, DFG shall undertake due diligence to provide a substitute LTSAA that will comply with such statutory enactment.

5.2 Reinstatement Following Suspension

DFG may lift any suspension within 60 days of written notification of the Regional Manager's decision to suspend the LTSAA, after determining that the District has adequately addressed the problem(s) that caused the suspension, and that reinstatement will not cause harm to fish and wildlife resources.

5.3 Reconsideration of Suspension or Cancellation

The District may request reconsideration of a suspension or cancellation of this LTSAA. The request for reconsideration must be received by the Regional Manager within 30 days of the date of notification of the decision for which reconsideration is requested. DFG shall notify the District of its decision in writing within 45 days of the receipt of the request for reconsideration. Such decision may be appealed to the Director within 30 days of the date of notification of the decision on the request for reconsideration. The Director's decision on appeal shall be made within 30 calendar days of receipt of the appeal, unless such time is extended for one additional 30-day period for good cause and the District is notified of the extension. The Director's decision on appeal shall constitute the final administrative decision of DFG.

6.0 FEES

6.1 Base Fees

In accordance with California Code of Regulations (CCR), Title 14, §699.5, the District submitted a base fee of \$2,689.50, and a per project fee of \$840.25, for a total of

\$3529.75, with the submittal of the Notification for a LTSAA in order to cover DFG preparation costs.

6.2 Amendment Fee

The fee for the District to amend this LTSAA shall come from the fee schedule in effect at the time of the request as specified in CCR, Title 14, §699.5. As of April 2010, the fee is \$168.00 for minor amendments and \$560.25 for major amendments. Amendments proposed by DFG are not subject to an Amendment fee.

6.3 Extension Fee

The fee to extend this LTSAA shall be that specified in CCR, Title 14, §699.5 at the time of the request. An extension of this LTSAA is not considered an amendment.

7.0 MONITORING AND REPORTING

7.1 Yearly Reporting

The District shall provide to DFG a copy of required reporting under the District's HCP by February 28 of each calendar year. The summary shall include inspection and maintenance activities and the diversion records under the LTSAA the previous year. The District shall provide information about how many and what species of fish were killed, entrained, rescued, stranded, and/or impinged by operations.

7.2 Four-year Status Report

Per FGC §1605(g)(2), the District shall provide a status report (trend monitoring) to DFG by February 28 every four years, with the first report due February 28, 2016. The status report shall include all of the following information:

- A. A copy of the LTSAA, including all subsequent site-specific conditions, with any suggested edits or revisions on the document;
- B. The status of the Authorized Activities, including a report with necessary sketches and graphics that describes, on a yearly basis the last 4 years of Authorized Activities, that were undertaken and any other activities completed pursuant to the LTSAA;
- C. An evaluation of the success or failure of the measures in the LTSAA to protect the fish and wildlife resources that the Authorized Activities may substantially adversely affect. If the evaluation indicates fish and wildlife resource protection measure can be improved, then the District shall propose methods and actions to improve these measures;

D. A discussion of any factors that could increase the predicted adverse impacts on fish and wildlife resources; and

E. A description of the resources that may be adversely affected.

If the District fails to provide timely status reports as required by this subdivision, DFG may suspend or revoke the LTSAA.

7.3 Status Report Review

Per FGC Section 1605(g)(3), DFG shall review the four-year status report, and conduct onsite inspections to confirm that the District is in compliance with the LTSAA and that the measures in the LTSAA continue to protect the fish and wildlife resources.

In the fifth year, after reviewing the four-year status report, DFG shall amend the LTSAA if necessary. Amendments shall include items such as updating specific contact information that has changed (e.g., website addresses, street addresses, telephone numbers, etc.), providing revisions informed by the four-year report, and any monitoring efforts and newer information.

8.0 ACCESS TO OPERATIONAL AREAS

The District agrees to allow DFG employees unrestricted access to District property for the purpose of site visits and inspecting and/or monitoring the implementation, compliance, and effectiveness of the Authorized Activities. DFG personnel shall employ standard precautions including safety precautions given the nature of the District's facility (e.g., chlorine safety protocols) when accessing District property and will contact the District regarding site visit coordination.

Nothing in the Agreement limits or otherwise affects DFG's enforcement authority or that of its enforcement personnel. Nothing in the Agreement precludes DFG from pursuing an enforcement action against the District instead of, or in addition to, suspending or revoking the Agreement.

9.0 COMPLIANCE WITH OTHER LAWS

Nothing in this LTSAA shall be construed to authorize the violation of any applicable federal, state, or local laws including, but not limited to, FGC §§5650, 5652, 5901, 5937, and 5948, the Porter-Cologne Act ("Clean Water Act"), and California Water Code.

10.0 CONDITIONS NECESSARY FOR PROTECTION OF FISH AND WILDLIFE RESOURCES FROM IMPACTS OF AUTHORIZED ACTIVITIES SUBJECT TO THIS AGREEMENT

10.1 General Conditions

- A. Except where otherwise stipulated in this Agreement, all work shall be in accordance with the project descriptions submitted with Notification No. 1600-2010-0093-R1.
- B. Routine Maintenance Activity E occurs periodically throughout the winter season. Routine Maintenance Activity D is typically necessary only after severe winter storm events, and as such, may be necessary during the winter season to protect Matthews Dam and the powerhouse.
- C. From May 1 through July 14, the District shall not initiate Routine Maintenance Activity F until Mad River flows are at or below 125 cfs, as measured at USGS No. 11481000, Arcata, California. Routine Maintenance Activity F shall cease by October 15 of each year.
- D. Routine Maintenance Activity G and Periodic Maintenance Activity H shall be confined to the period July 1 through October 15 of each year.
- E. An Emergency Spill Response Plan for all operations shall be prepared and submitted to DFG for review and approval within six months of the effective date of this Agreement. The plan shall identify the materials to be used and the actions that will be taken in the event of spill of petroleum products, fine sediment or any other material harmful to aquatic or plant life. The emergency response materials shall be kept at the site to allow the rapid containment and clean-up of any spilled material. Emergency clean up of all spills shall be done immediately. During or soon after the initial clean up is possible, the District will notify DFG that a spill has occurred, and will consult with DFG regarding final clean-up procedures.

10.2 Water Diversion

- A. The season of diversion from the Ranney collectors at Pump Stations Nos. 1 through 5 for municipal use is January 1 to December 31. The season of diversion from the surface flow intakes at Pump Station No. 6 is January 1 to December 31.
- B. The maximum instantaneous rate of diversion shall not exceed 116 cfs from all water diversion facilities.
- C. The District shall perform a hydrologic and fish passage assessment approved by DFG. The assessment shall determine the effects of stream impoundment

(Matthews Dam) and stream diversion at Essex. The District shall provide DFG a draft of the assessment within six month of execution of this LTSAA for DFG approval. The results of the DFG approved assessment proposal shall be submitted within three years of execution of this LTSAA. The results of the assessment will help inform DFG and the District if aquatic habitat for listed and sensitive species can be improved with minor modifications to the District's operations. Any minor modifications to the Districts operations shall be limited to those within the District's operational constraints. The District will not be required to fund additional studies or assessments, but will cooperate with DFG by providing available data or personnel.

- D. Based on the assessment results described in 10.2 C above, the District and DFG shall determine and agree upon the flow releases and bypass flows within one year of completing the assessment. Flow releases from Matthews Dam shall be designed to mimic the natural hydrograph to the extent feasible and bypass flows below the Essex Reach shall keep fish in good condition. Given the District's flow releases are limited during storm events; dam releases shall, to the extent feasible, track the magnitude and duration of inflow to the reservoir as measured at USGS Station No. 11480390, Zenia, California.
- E. Flow releases from Matthews dam shall not strand or displace (washout) fish or other aquatic resources.
- F. The District's operations at Essex shall not: 1) inhibit juvenile and adult fish passage, 2) constrict the natural flow of the stream, or 3) cause sudden changes in velocity or turbulent stream flow that would result in juvenile displacement or inhibition of juvenile and adult fish movement.
- G. Maintenance activities described in 2.0 D through 2.0 H shall not result in the stranding or entrapment of fish.
- H. If the District is authorized to add instream flow dedication to its water right pursuant to Water Code §1707, the water released for instream purposes may be used to toward meeting the above conditions 10.2 C through 10.2 F.
- I. The District shall maintain daily records with current operational information for the Essex Reach diversions including: 1) domestic diversion via the Ranney Collectors and industrial diversion via the direct diversion facility; 2) date and time; 3) instantaneous diversion rate (in gallons per minute or cubic feet per second); and 4) screen cleaning and inspection notes. The District shall provide records to DFG upon request.

10.3 Maintenance

- A. Maintenance of, or repairs to, existing rock structures shall not disturb or remove vegetation to the maximum extent practicable. If more than 1/8 of an acre of

riparian vegetation is removed during maintenance activities, the Permittee shall submit to DFG a revegetation plan (described below) for review and approval.

1. Submittal of a DFG-Approved Revegetation Plan

A revegetation plan shall be prepared by a qualified botanist, plant ecologist, or revegetation specialist with expertise in northern California ecosystems and native plant revegetation techniques. Currently available research addressing revegetation methods, selection of species having good survival characteristics for the topography and climate of the maintenance area shall be used. This plan shall be submitted to DFG for review and approval prior to commencement of vegetation removal activities.

2. Contents of the Revegetation Plan

The plan shall include the following elements:

1. Identification and quantities and types of the native and non-native plant communities that will be impacted by the maintenance activity.
2. Utilization of a native plant pallet of species currently or historically present in the work area. Seeds, cuttings and divisions of locally-collected native plants are recommended.
3. Planting design specifications and schedule, maintenance plan, erosion control and irrigation plans as necessary. Planting shall be conducted during the most favorable period of the year for plant establishment. Approval in writing of the revegetation plan by DFG shall provide permission for the applicant to conduct the replanting activities specified within the revegetation plan.
4. Designated photo points shall be established for monitoring planting success following guidelines from the current literature on the topic of photo point monitoring. For example: *Photo Point Monitoring, Frederick C. Hall, PNW-GTR-526, USFS, March 2002.*
5. Restoration of native plants at a ratio of 3:1 or with a planting density typical of historic conditions or at a level that will facilitate natural recruitment and recovery of the native riparian species.
6. If an invasive non-native plant species is present and a native plant community does not exist or exists in combination with invasive non-native plant species, the plan shall address the removal of the invasive non-native species.

7. A description of how planting success will be determined. The criteria for success shall be 80 percent survival with 75 percent coverage after five years.
 8. A post-maintenance activity monitoring plan of plant survival and coverage requirements for five years.
 9. An invasive non-native plant species eradication and five year maintenance plan.
- B. Removal of large woody debris [(LWD) downed trees greater than 12 inches in diameter and 20 feet in length] from annual maintenance work sites shall require DFG approval. LWD approved for removal by DFG shall be temporarily stockpiled, and after completion of operations, redistributed into the active stream channel at the direction of DFG.
- C. A qualified wildlife biologist shall evaluate and document in a report prepared for DFG's review and concurrence the extent of suitable willow flycatcher habitat in and within 300 feet of any proposed maintenance activity site that includes vegetation removal, new road construction, rip rap maintenance, and/or gravel bar manipulation where work is proposed to occur before August 15. Where such activities are proposed, a survey of suitable habitat shall be conducted by a qualified wildlife biologist to determine if the project area or adjacent habitat is occupied by willow flycatcher. The survey shall follow guidelines found in *A willow flycatcher survey protocol for California* (Bombay, et al. 2003), which can be obtained at the attached link:
http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html.

DFG shall receive a report summarizing survey effort results at least one week before maintenance activities are to take place. If willow flycatchers are observed, the qualified wildlife biologist shall design appropriate buffer widths and operational restrictions and forward the operational report to DFG for review and approval. Maintenance activities shall not commence until DFG has approved the operational report. DFG shall strive to make the determination within 96 hours of receiving the survey report.

10.4 Site Specific Conditions

- A. Forebay dredge materials shall not be stockpiled within 150 feet of the top of bank or edge of existing riparian, whichever is greater. Temporary stockpiling adjacent to Pump Station No. 6 may occur, but shall not remain for more than one work season. Stockpile locations shall be approved by DFG prior to use.
- B. Gravel used to construct the berm adjacent to Pump Station No. 6 shall be allowed to return to the river when increased winter flows wash it out. Following

construction of the berm, the gravel bar surfaces shall be smooth and free of depressions.

- C. Immediately upstream of the reservoir formed by Matthews Dam, natural streamflow velocities are reduced likely causing aggradation of river-run gravels. Downstream of the Matthews Dam, natural replenishment of river-run gavel may not be occurring. This is a steelhead trout spawning area. To address this, the District, in cooperation with DFG, shall participate in an assessment to determine if gravel below Matthews Dam is depleted and the potential effects. If DFG determines adverse impacts exist after the assessment, then the District shall develop a gravel replenishment plan for the Mad River below Matthews Dam within two years of the completion of the assessment. Gravel replenishment options shall include the utilization of gravel from the Mad River channel upstream of the reservoir.

IN WITNESS WHEREOF, THE PARTIES HERETO have executed this LTSAA to be in effect as of the date of this LTSAA by all Parties.

Dated: 1/10/12

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

By: Carol Rische
CAROL RISCHE
GENERAL MANAGER

Dated: 2/2/2012

CALIFORNIA DEPARTMENT OF FISH AND GAME

By: Neil Manji
NEIL MANJI
REGIONAL MANAGER