



# National Marine Fisheries Service Section 10(a)(2)(B) Statements of Findings

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**NATIONAL MARINE FISHERIES SERVICE  
SECTION 10(a)(2)(B) STATEMENT OF FINDINGS  
FOR THE WELLS HYDROELECTRIC PROJECT**

Upon receiving a permit application and conservation plan completed in accordance with the requirements of Section 10(a)(2)(A) of the Endangered Species Act (ESA) and providing an opportunity for public comment, the National Marine Fisheries Service (NMFS) considers the issuance criteria described in Section 10(a)(2)(B) of the ESA in determining whether to issue the permit. If an application fails to meet any of the permit criteria, the permit must be denied. In addition, NMFS considers the general permit criteria in 50 CFR 222.303 and criteria specific to incidental take permits in 50 CFR 222.307. The denial of an incidental take permit must be made pursuant to Subpart D of 15 CFR part 904.

**I. Background**

Public Utility District No. 1 of Douglas County (Douglas PUD) has applied for an incidental take permit to be issued pursuant to Section 10(a)(1)(B) of the ESA for a term of 50 years to authorize take incidentally caused by the Wells Hydroelectric Project, licensed by the Federal Energy Regulatory Commission (FERC) as Project No. 2149. The following listed and unlisted anadromous species (“Permit Species”) would be taken:

<u>Species/Evolutionarily Significant Unit</u>	<u>ESA Listing Status</u>
Upper Columbia River (UCR) steelhead ( <i>Oncorhynchus mykiss</i> )	Endangered
UCR spring-run chinook salmon ( <i>O. tshawytscha</i> )	Endangered
UCR summer/fall-run chinook salmon ( <i>O. tshawytscha</i> )	Not Warranted
Okanogan River sockeye salmon ( <i>O. nerka</i> )	Not Warranted

The incidental take permit will authorize the incidental take of the listed species. NMFS’ findings with respect to the unlisted stocks are for the purpose of recording NMFS’ current evaluation of the issuance criteria for these stocks for consideration in the event they are later listed. Project operations will also result in take of reintroduced non-indigenous coho salmon (*O. kisutch*). This species is not considered as one of the Permit Species, because it cannot be listed in the future. Coho and the Permit Species are referred to collectively as “Plan Species.”

NMFS published a notice of its receipt of a revised application for incidental take permits (Permit Application) and Anadromous Fish Agreement and Habitat Conservation Plan (HCP), and the availability of these for public comment, in the Federal Register on June 25, 2002 (67 Fed. Reg. 42,755). NMFS received comments on the revised HCP as provided in Appendix B of NMFS’ Record of Decision (ROD). NMFS’ response to the revised HCP comments is provided in Appendix C of the ROD.

The Public Utility District No. 1 of Chelan County (Chelan PUD) has applied for two incidental take permits to authorize take of listed species caused by its Rock Island Hydroelectric Project (FERC No. 943) and its Rocky Reach Hydroelectric Project (FERC No. 2145). NMFS intends to issue a ROD considering all three projects and separate statements of findings for each of the three projects.

Under the permit, Douglas PUD would operate its Wells Hydroelectric Project and implement fish protection and mitigation measures in accordance with its HCP. The HCP sets forth specific performance standards that relate to the survival of each Permit Species and measures to mitigate for impacts to coho. The HCP defines an overall performance standard to achieve no net impact to the species migrating through the project. This includes a 91 percent combined adult and juvenile project survival rate through the project and compensation for the 9 percent unavoidable project mortality provided through hatchery and tributary programs. Current hatchery production levels affecting ESA-listed species have previously been analyzed under the ESA and are addressed by Section 10(a)(1)(A) enhancement permits (Permit Nos. 1094 and 1196) issued to the Washington Department of Fish and Wildlife (WDFW).

This Statement of Findings is based on information and analysis provided in Douglas PUD's Section 10(a)(1)(B) Permit Application and HCP; NMFS' Final Environmental Impact Statement (December, 2002)(FEIS); and NMFS' *Biological Opinion, Unlisted Species Analysis, and Magnuson-Stevens Fishery Conservation and Management Act Consultation for proposed issuance of a Section 10 Incidental Take Permit to Public Utility District No. 1 of Douglas County for the Wells Hydroelectric Project (FERC No. 2149) Anadromous Fish Agreement and Habitat Conservation Plan* (Biological Opinion), all of which are incorporated here by reference.

## **II. General Regulatory Issuance Criteria**

### **A. Issuance criteria specific to incidental take permits.**

NMFS considered and analyzed the following regulatory criteria, which are specific to incidental take permit decisions (50 CFR 222.307(c)(1)):

1. the status of affected species or stock;
2. the potential severity of direct, indirect, and cumulative impacts on the species or stocks and habitat as a result of the proposed activity;
3. the availability of effective monitoring techniques;
4. the use of best available technology for minimizing or mitigating impacts; and
5. the views of the public, scientists, and other interested parties knowledgeable of the species or stocks or other matters related to the application.

1. Status of the species. The Biological Opinion evaluated the status of the Permit Species affected by the HCP (Section 4) and the environmental baseline of the Permit Species and their habitat (Section 5). In sum, NMFS found in its Biological Opinion that listed stocks affected by the Wells Hydroelectric Project were in decline, and that the unlisted stocks were stable or increasing.

2. Direct, indirect, and cumulative impacts of implementing the proposed action. In addition, NMFS considered in Section 6 of its Biological Opinion the direct and indirect impacts of implementation of the HCP at the Wells Hydroelectric Project (both independent of and in conjunction with the Rocky Reach and Rock Island hydroelectric projects). Furthermore, NMFS considered, for ESA purposes, the cumulative effects of Federal, State, and private actions in Sections 5 and 7 of its Biological Opinion, and the cumulative impacts of this action for NEPA purposes in the FEIS. NMFS found that the HCP would improve survival through the project for all Permit Species and not appreciably reduce the likelihood of survival and recovery of the Permit Species in the wild.

3. Availability of effective monitoring techniques. Monitoring of the implementation of the HCP and the effectiveness of the HCP prescriptions (i.e., survival standards) are a critical feature of this HCP. Monitoring reports will be completed and submitted to the NMFS and the U.S. Fish and Wildlife Service (USFWS) according to the specific schedules required in the HCP or in the Incidental Take Statement of the Biological Opinion, or as otherwise agreed to by the members of each HCP committee. Monitoring and adaptive management shall occur throughout the term of the HCP. The HCP includes specific provisions to address an inability to measure the survival of certain species (e.g., sockeye and subyearling Chinook) by using surrogate measurements of survival at the dam until technology to measure project survival is developed. The HCPs require the use of the new monitoring technologies as they become available.

4. Use of the best available technology to minimize and mitigate take. The measures established in this HCP to improve the survival of migrating adult and juvenile steelhead and salmon represent the most recent developments in science and technology. These include voluntary spill at spillways, juvenile bypass systems, and adult fishways. The measures defined in the HCP to minimize take at the project represent the best available technology for improving survival of fish at hydropower projects. In addition, the adaptive management approach in the HCP allows for the use of new technologies to achieve the performance standards as those technologies become available.

5. Views of others. The proposed HCP for the Wells Hydroelectric Project is the result of over 9 years of planning and negotiations between NMFS, Douglas PUD, and other participants in the HCP process. Participants included technical, policy, and legal staff from USFWS, WDFW; the Bureau of Indian Affairs, the Confederated Tribes and Bands of the Yakama Indian Nation (Yakama); the Confederated Tribes of the Colville Reservation (Colville); the Confederated Tribes of the Umatilla Indian Reservation (Umatilla); American Rivers, Inc.; and Douglas PUD. This effort culminated in the completion of three proposed anadromous fish agreements and habitat conservation plans (one each for Wells, Rocky Reach, and Rock Island hydroelectric projects) offered for signing on March 26, 2002. Chelan and Douglas PUDs, certain power purchasers, WDFW, the USFWS, the Colville Tribe, and NMFS indicated their qualified support (pending the necessary regulatory review) by signing the agreement.

NMFS received public comment during the NEPA scoping process on the Draft Environment Impact Statement (DEIS), in response to the Notice of Revised Incidental Take Permit Applications, and on the FEIS.

NMFS considered the expertise of entities that participated in the negotiations and the views of other agencies and the public expressed through comments in reaching its decision. Additional information regarding the public review process can be found in the Biological Opinion, Section 2; FEIS Section 1.7 and Appendices A – D; and in Responses to Comments in the ROD.

## **B. General permit criteria**

NMFS also considered the general permit criteria set forth in 50 CFR 222.303(e)(1). These criteria require NMFS to issue the permit unless the denial has been made pursuant to 15 CFR part 904, Subpart D; the applicant has failed to disclose information or has made false statements as to any material fact;

the applicant has failed to demonstrate a valid justification for the permit or a showing of responsibility; the authorization potentially threatens a fish or wildlife population; or the applicant is not qualified.

NMFS has no evidence that the permit should be denied based on these criteria. To NMFS' knowledge, the applicant has not withheld information or made false statements as to any material facts. The applicant has demonstrated a valid justification for the permit and its responsibility. The effect of the permit on anadromous salmonids and other species is addressed in the Biological Opinion and FEIS. NMFS finds that based on the information and analysis in those documents, the permit issuance will not threaten any fish or wildlife population. NMFS finds that the applicant is otherwise fully qualified.

### **III. Incidental Take Permit Issuance Findings**

The issuance criteria of Section 10(a)(2)(B), as reiterated in NMFS regulations at 50 CFR 222.307(c)(2), require that the taking will be incidental to otherwise lawful activity; the applicant will, to the maximum extent practicable minimize and mitigate the impacts of such taking; the applicant will ensure that adequate funding for the plan will be provided; the taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild; and any additional measures that NMFS finds necessary or appropriate will be implemented.

Based on the information and analysis set forth in detail in Douglas PUD's permit application and HCP, NMFS' FEIS, and NMFS' Biological Opinion, NMFS finds:

#### **A. The taking of listed species will be incidental to an otherwise lawful activity.**

NMFS anticipates that the proposed action will result in incidental take of all Permit Species through direct, indirect, and delayed mortality caused by the dams. See the Biological Opinion. NMFS finds, based on the information provided in Douglas PUD's Section 10(a)(1)(B) Permit Application, that the take at the Wells Hydroelectric Project is incidental to, and not the purpose of, the operation of the project for hydroelectric power production.

#### **B. Douglas PUD will, to the maximum extent practicable, monitor, minimize, and mitigate the impacts of taking Permit Species associated with the Wells Hydroelectric Project.**

NMFS finds that implementation of the HCP will minimize and mitigate to the maximum extent practical the impacts of such taking through implementation of specific measures to improve survival through the project, by providing funding for tributary habitat improvements and hatchery production, and by committing to meet specific survival standards.

The HCP establishes an approach focusing on mitigation through avoidance of impacts, a no net impact standard for each species, compensation for unavoidable impacts, and the implementation of an adaptive management strategy. The no net impact standard consists of 91 percent combined adult and juvenile project survival goal and a 9 percent compensation for unavoidable project mortality. This 9 percent compensation level includes 7 percent provided through hatchery programs, and 2 percent through a tributary habitat improvement program.

The HCP also identifies specific monitoring and evaluation protocols to determine if the survival goals are being met throughout the term of the agreement, and an adaptive management strategy if the survival

goals are not being met (including termination or withdrawal provisions if it is determined that the standards cannot be met). These features are intended to account for the uncertainty in the scientific information concerning the Permit Species.

NMFS considered alternatives to the proposed action in its FEIS, including a no action alternative and an action alternative “Hydropower Conservation Measures to Protect Anadromous Fish” (*Alternative 2*).

Mitigation and monitoring programs for *Alternative 1* (No Action Alternative) are discussed in detail in Subsection 4.2.1 (Alternative 1 (No Action)), and pages S-10 to S-13 of the FEIS. These programs are essentially a continuation of existing programs established through the FERC licenses or settlement agreements, with no specific provisions for additional mitigation or an adaptive management program.

Programs associated with *Alternative 2* (Hydropower Conservation Measures to Protect Anadromous Fish) are discussed in Subsection 4.2.2 (Alternative 2), and pages S-13 to S-21 of the FEIS. *Alternative 2* analyzed additional mitigation measures that could be implemented at all three Mid-Columbia projects. The alternative measures applicable to the Wells Hydroelectric Project include operating within 1 percent of peak turbine efficiency at all times during juvenile and adult passage periods and operating the surface bypass system 24 hours a day for up to 99 percent of the juvenile migration period. While this alternative is expected to improve fish passage conditions at the project, resulting in somewhat greater survival rates over the levels described in *Alternative 1*, no specific fish passage survival goals are identified. In addition, the measures in *Alternative 2* do not include a tributary fund for off-site mitigation. In addition, although these measures may increase salmonid survival, these measures are very costly. Under the HCP alternative’s adaptive management program, such options could be pursued in the future if performance standards are not otherwise achieved. In addition, the monitoring program set forth in the HCP alternative includes all practicable means with current technology to monitor compliance and achievement of performance standards. In addition, the HCP alternative allows for the use of new monitoring techniques as technologies become available.

Therefore, based on the FEIS’s comparison of the alternatives, NMFS finds that the proposed Section 10(a)(1)(B) Permit for the HCP will, to the maximum extent practicable, monitor, minimize, and mitigate the impacts to Plan Species resulting from the otherwise lawful operation of the Wells Hydroelectric Project.

**C. Douglas PUD has ensured that adequate funding for the plan will be provided.**

NMFS finds that the applicant has provided adequate assurance, in its application and by signing the HCP, that funding for implementation of the HCP will be provided.

**D. Based upon the best available scientific information, the taking will not appreciably reduce the likelihood of the survival and recovery of the Permit Species in the wild.**

Section 10(a)(2)(B)(iv) of the ESA requires that any taking authorized in the incidental take permit not appreciably reduce the likelihood of the survival and recovery of the species in the wild. Section 7(a)(2) of the ESA requires Federal agencies, in consultation with NMFS, to ensure that any federal action is “not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification [of designated critical] habitat...” NMFS’ regulations define “jeopardize the continued existence of” to mean “to engage in an action that reasonably would be

expected, directly or indirectly, to reduce appreciably the likelihood of both survival and recovery of a listed species in the wild by reducing the reproduction, numbers or distribution of that species" (50 CFR 402.02). Thus, the "jeopardy standard" under Section 7(a)(2) as defined in the regulation is essentially identical to the incidental take issuance criteria in Section 10(a)(2)(B)(iv). The ESA's legislative history confirms this interpretation, stating that this issuance criteria be based on a finding of "not likely to jeopardize."

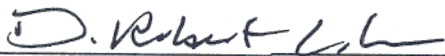
NMFS has completed a Section 7(a)(2) consultation and biological opinion analyzing whether issuance of the permit would jeopardize the continued existence of the Permit Species. NMFS' Section 7(a)(2) findings for the Permit Species (listed and unlisted) are found in Section 8 of the Biological Opinion. In summary, NMFS has considered the status of the species, the environmental baseline and the effects of the proposed action, and any indirect and cumulative effects within the HCP action area. NMFS concluded that issuance of the Incidental Take Permit to Douglas PUD for spring-run chinook salmon, summer/fall-run chinook salmon, sockeye salmon, and steelhead was not likely to jeopardize the continued existence of any of these species. Because this standard is essentially identical to the standard set forth in ESA Section 10(a)(2)(B)(iv), NMFS finds Douglas PUD's permit application and HCP meet this issuance requirement.

**E. The HCP has been revised to ensure any additional measures that NMFS finds necessary or appropriate will be implemented.**

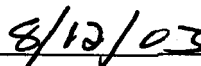
NMFS has worked closely with Douglas PUD, as well as Federal, state, and tribal representatives; American Rivers (a non-governmental organization); and representatives of Douglas PUD's power purchasers, over the last nine years in the development of the HCP. NMFS finds that the revised HCP incorporated all elements determined by NMFS to be necessary for approval of the HCP and issuance of the permit.

**IV. Conclusion**

Based on these findings, NMFS hereby determines that Douglas PUD's Incidental Take Permit Application and HCP meet the statutory and regulatory requirements for an Incidental Take Permit under Section 10(a)(2)(B) of the ESA and 50 CFR Sections 222.303 and 222.307.



\_\_\_\_\_  
D. Robert Lohn  
Regional Administrator  
National Marine Fisheries Service, Northwest Region

  
\_\_\_\_\_  
Date



**NATIONAL MARINE FISHERIES SERVICE  
SECTION 10(a)(2)(B) STATEMENT OF FINDINGS  
FOR THE ROCKY REACH HYDROELECTRIC PROJECT**

Upon receiving a permit application and conservation plan completed in accordance with the requirements of Section 10(a)(2)(A) of the Endangered Species Act (ESA) and providing an opportunity for public comment, the National Marine Fisheries Service (NMFS) considers the issuance criteria described in Section 10(a)(2)(B) of the ESA in determining whether to issue the permit. If an application fails to meet any of the permit criteria, the permit must be denied. In addition, NMFS considers the general permit criteria in 50 CFR 222.303 and criteria specific to incidental take permits in 50 CFR 222.307. The denial of an incidental take permit must be made pursuant to Subpart D of 15 CFR part 904.

**I. Background**

Public Utility District No. 1 of Chelan County (Chelan PUD) has applied for an incidental take permit to be issued pursuant to Section 10(a)(1)(B) of the ESA for a term of 50 years to authorize take incidentally caused by the Rocky Reach Hydroelectric Project, licensed by the Federal Energy Regulatory Commission (FERC) as Project No. 2145. The following listed and unlisted anadromous species (“Permit Species”) would be taken:

<u>Species/Evolutionarily Significant Unit</u>	<u>ESA Listing Status</u>
Upper Columbia River (UCR) steelhead [ <i>Oncorhynchus mykiss</i> ]	Endangered
UCR spring-run chinook salmon [ <i>O. tshawytscha</i> ]	Endangered
UCR summer/fall-run chinook salmon [ <i>O. tshawytscha</i> ]	Not Warranted
Okanogan River sockeye salmon ( <i>O. nerka</i> )	Not Warranted

The incidental take permits will authorize the incidental take of the listed species. NMFS’ findings with respect to the unlisted stocks are for the purpose of recording NMFS’ current evaluation of the issuance criteria for these stocks for consideration in the event they are later listed. Project operations will also result in take of reintroduced non-indigenous coho salmon (*O. kisutch*). This species is not considered as one of the Permit Species, because it cannot be listed in the future. Coho and the Permit Species are referred to collectively as “Plan Species.”

NMFS published a notice of its receipt of a revised application for incidental take permits (Permit Application) and Anadromous Fish Agreement and Habitat Conservation Plan (HCP), and the availability of these for public comment, in the Federal Register on June 25, 2002 (67 Fed. Reg. 42,755). NMFS received comments on the revised HCP as provided in Appendix B of NMFS’ Record of Decision (ROD). NMFS’ response to the revised HCP comments is provided in Appendix C of the ROD.

Chelan PUD has also applied for an incidental take permit to authorize take of listed species caused by its Rock Island Hydroelectric Project (FERC No. 943). Furthermore, Public Utility District No. 1 of Douglas County (Douglas PUD) has also applied for an incidental take permit to authorize take at its Wells Hydroelectric Project (FERC No. 2149). NMFS intends to issue a ROD considering all three projects and separate statements of findings for each of the three projects.

Under the permit, Chelan PUD would operate its Rocky Reach Hydroelectric Project and implement fish protection and mitigation measures in accordance with its HCP. The HCP sets forth specific performance standards that relate to the survival of each Permit Species and measures to mitigate for impacts to coho. The HCP defines an overall performance standard to achieve no net impact to the species migrating through the project. This includes a 91 percent combined adult and juvenile project survival rate through the project and compensation for the 9 percent unavoidable project mortality provided through hatchery and tributary programs. Current hatchery production levels affecting ESA-listed species have previously been analyzed under the ESA and are addressed by Section 10(a)(1)(A) enhancement permits (Permit Nos. 1094 and 1196) issued to the Washington Department of Fish and Wildlife (WDFW).

This Statement of Findings is based on information and analysis provided in Chelan PUD's Section 10(a)(1)(B) Permit Application and HCP; NMFS' Final Environmental Impact Statement (December, 2002)(FEIS); and NMFS' *Biological Opinion, Unlisted Species Analysis, and Magnuson-Stevens Fishery Conservation and Management Act Consultation for proposed issuance of a Section 10 Incidental Take Permit to Public Utility District No. 1 of Chelan County for the Rocky Reach Hydroelectric Project (FERC No. 2145) Anadromous Fish Agreement and Habitat Conservation Plan and construction of a small turbine in the attraction water conduit of an adult fishway* (Biological Opinion), all of which are incorporated here by reference.

## **II. General Regulatory Issuance Criteria**

### **A. Issuance criteria specific to incidental take permits.**

NMFS considered and analyzed the following regulatory criteria, which are specific to incidental take permit decisions (50 CFR 222.307(c)(1)):

1. the status of affected species or stock;
2. the potential severity of direct, indirect, and cumulative impacts on the species or stocks and habitat as a result of the proposed activity;
3. the availability of effective monitoring techniques;
4. the use of best available technology for minimizing or mitigating impacts; and
5. the views of the public, scientists, and other interested parties knowledgeable of the species or stocks or other matters related to the application.

1. Status of the species. The Biological Opinion evaluated the status of the Permit Species affected by the HCP (Section 4) and the environmental baseline of the Permit Species and their habitat (Section 5). In sum, NMFS found in its Biological Opinion that listed stocks affected by the Rocky Reach Hydroelectric Project were in decline, and that the unlisted stocks were stable or increasing.

2. Direct, indirect, and cumulative impacts of implementing the proposed action. In addition, NMFS considered in Section 6 of its Biological Opinion the direct and indirect impacts of implementation of the HCP at the Rocky Reach Hydroelectric Project (both independent of and in conjunction with the Wells and Rock Island hydroelectric projects). Furthermore, NMFS considered, for ESA purposes, the cumulative effects of Federal, State, and private actions in Sections 5 and 7 of its Biological Opinion, and the cumulative impacts of this action for NEPA purposes in the FEIS. NMFS found that the HCP

would improve survival through the project for all Permit Species and not appreciably reduce the likelihood of survival and recovery of the Permit Species in the wild.

3. Availability of effective monitoring techniques. Monitoring of the implementation of the HCP and the effectiveness of the HCP prescriptions (i.e., survival standards) are a critical feature of this HCP. Monitoring reports will be completed and submitted to the NMFS and the U.S. Fish and Wildlife Service (USFWS) according to the specific schedules required in the HCP or in the Incidental Take Statement of the Biological Opinion, or as otherwise agreed to by the members of each HCP committee. Monitoring and adaptive management shall occur throughout the term of the HCP. The HCP includes specific provisions to address an inability to measure the survival of certain species (e.g., sockeye and subyearling Chinook) by using surrogate measurements of survival at the dam until technology to measure project survival is developed. The HCPs require the use of the new monitoring technologies as they become available.

4. Use of the best available technology to minimize and mitigate take. The measures established in this HCP to improve the survival of migrating adult and juvenile steelhead and salmon represent the most recent developments in science and technology. These include voluntary spill at spillways, juvenile bypass systems, and adult fishways. The measures defined in the HCP to minimize take at the project represent the best available technology for improving survival of fish at hydropower projects. In addition, the adaptive management approach in the HCP allows for the use of new technologies to achieve the performance standards as those technologies become available.

5. Views of others. The proposed HCP for the project is the result of over 9 years of planning and negotiations between NMFS, Chelan PUD, and other participants in the HCP process. Participants included technical, policy, and legal staff from USFWS; WDFW; the Bureau of Indian Affairs; the Confederated Tribes and Bands of the Yakama Indian Nation (Yakama); the Confederated Tribes of the Colville Reservation (Colville); the Confederated Tribes of the Umatilla Indian Reservation (Umatilla); American Rivers, Inc.; and representatives of the major wholesale purchasers of Chelan PUD's electricity. This effort culminated in the completion of three proposed anadromous fish agreements and habitat conservation plans (one each for Wells, Rocky Reach, and Rock Island hydroelectric projects) offered for signing on March 26, 2002. Chelan and Douglas PUDs, certain power purchasers, WDFW, USFWS, the Colville Tribe, and NMFS indicated their qualified support (pending the necessary regulatory review) by signing the agreement.

NMFS received public comment during the NEPA scoping process on the Draft Environment Impact Statement (DEIS), in response to the Notice of Revised Incidental Take Permit Applications, and on the FEIS.

NMFS considered the expertise of entities that participated in the negotiations and the views of other agencies and the public expressed through comments in reaching its decision. Additional information regarding the public review process can be found in the Biological Opinion, Section 2; FEIS Section 1.7 and Appendices A – D; and in Responses to Comments in the ROD.

## **B. General permit criteria**

NMFS also considered the general permit criteria set forth in 50 CFR 222.303(e)(1). These criteria require NMFS to issue the permit unless the denial has been made pursuant to 15 CFR part 904, Subpart D; the applicant has failed to disclose information or has made false statements as to any material fact; the applicant has failed to demonstrate a valid justification for the permit or a showing of responsibility; the authorization potentially threatens a fish or wildlife population; or the applicant is not qualified.

NMFS has no evidence that the permit should be denied based on these criteria. To NMFS' knowledge, the applicant has not withheld information or made false statements as to any material facts. The applicant has demonstrated a valid justification for the permit and its responsibility. The effect of the permit on anadromous salmonids and other species is addressed in the Biological Opinion and FEIS. NMFS finds that based on the information and analysis in those documents, the permit issuance will not threaten any fish or wildlife population. NMFS finds that the applicant is otherwise fully qualified.

## **III. Incidental Take Permit Issuance Findings**

The issuance criteria of Section 10(a)(2)(B), as reiterated in NMFS regulations at 50 CFR 222.307(c)(2), require that the taking will be incidental to otherwise lawful activity; the applicant will, to the maximum extent practicable minimize and mitigate the impacts of such taking; the applicant will ensure that adequate funding for the plan will be provided; the taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild; and any additional measures that NMFS finds necessary or appropriate will be implemented.

Based on the information and analysis set forth in detail in Chelan PUD's permit application and HCP, NMFS' FEIS, and NMFS' Biological Opinion, NMFS finds:

### **A. The taking of listed species will be incidental to an otherwise lawful activity.**

NMFS anticipates that the proposed action will result in incidental take of all Permit Species through direct, indirect, and delayed mortality caused by the dams. See the Biological Opinion. NMFS finds, based on the information provided in Chelan PUD's Section 10(a)(1)(B) Permit Application, that the take at the Rocky Reach Hydroelectric Project is incidental to, and not the purpose of, the operation of the project for hydroelectric power production.

### **B. Chelan PUD will, to the maximum extent practicable, monitor, minimize, and mitigate the impacts of taking Permit Species associated with the Rocky Reach Hydroelectric Project.**

NMFS finds that implementation of the HCP will minimize and mitigate to the maximum extent practical the impacts of such taking through implementation of specific measures to improve survival through the project, by providing funding for tributary habitat improvements and hatchery production, and by committing to meet specific survival standards.

The HCP establishes an approach focusing on mitigation through avoidance of impacts, a no net impact standard for each species, compensation for unavoidable impacts, and the implementation of an adaptive management strategy. The no net impact standard consists of 91 percent combined adult and juvenile

project survival goal and a 9 percent compensation for unavoidable project mortality. This 9 percent compensation level includes 7 percent provided through hatchery programs, and 2 percent through a tributary habitat improvement program.

The HCP also identifies specific monitoring and evaluation protocols to determine if the survival goals are being met throughout the term of the agreement, and an adaptive management strategy if the survival goals are not being met (including termination or withdrawal provisions if it is determined that the standards cannot be met). These features are intended to account for the uncertainty in the scientific information concerning the Permit Species.

NMFS considered alternatives to the proposed action in its FEIS, including a no action alternative and an action alternative “Hydropower Conservation Measures to Protect Anadromous Fish” (*Alternative 2*).

Mitigation and monitoring programs for *Alternative 1* (No Action Alternative) are discussed in detail in Subsection 4.2.1 (*Alternative 1* (No Action)), and pages S-10 to S-13 of the FEIS. These programs are essentially a continuation of existing programs established through the FERC licenses or settlement agreements, with no specific provisions for additional mitigation or an adaptive management program.

Programs associated with *Alternative 2* (Hydropower Conservation Measures to Protect Anadromous Fish) are discussed in Subsection 4.2.2 (*Alternative 2*), and pages S-13 to S-21 of the FEIS. *Alternative 2* analyzed additional mitigation measures that could be implemented at all three Mid-Columbia projects. The alternative measures applicable to Rocky Reach include maximizing spill at 40 percent for 99 percent of the juvenile migration and the construction and operation of a sluiceway bypass system at Rocky Reach Dam to be used with, or instead of, the existing bypass system. While this alternative is expected to improve fish passage conditions at the project, resulting in somewhat greater survival rates over the levels described in *Alternative 1*, no specific fish passage survival goals are identified. In addition, the measures in *Alternative 2* do not include a tributary fund for off-site mitigation. In addition, although maximizing spill and construction of a sluiceway may increase salmonid survival, these measures are very costly. Under the HCP alternative’s adaptive management program, such options could be pursued in the future if performance standards are not otherwise achieved. In addition, the monitoring program set forth in the HCP alternative includes all practicable means with current technology to monitor compliance and achievement of performance standards. In addition, the HCP alternative allows for the use of new monitoring techniques as technologies become available.

Therefore, based on the FEIS’s comparison of the alternatives, NMFS finds that the proposed Section 10(a)(1)(B) Permit for the HCP will, to the maximum extent practicable, monitor, minimize, and mitigate the impacts to Plan Species resulting from the otherwise lawful operation of the Rocky Reach Hydroelectric Project.

### **C. Chelan PUD has ensured that adequate funding for the plan will be provided.**

NMFS finds that the applicant has provided adequate assurance, in its application and by signing the HCP, that funding for implementation of the HCP will be provided.

**D. Based upon the best available scientific information, the taking will not appreciably reduce the likelihood of the survival and recovery of the Permit Species in the wild.**

Section 10(a)(2)(B)(iv) of the ESA requires that any taking authorized in the incidental take permit not appreciably reduce the likelihood of the survival and recovery of the species in the wild. Section 7(a)(2) of the ESA requires Federal agencies, in consultation with NMFS, to ensure that any federal action is "not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification [of designated critical] habitat..." NMFS' regulations define "jeopardize the continued existence of" to mean "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both survival and recovery of a listed species in the wild by reducing the reproduction, numbers or distribution of that species" (50 CFR 402.02). Thus, the "jeopardy standard" under Section 7(a)(2) as defined in the regulation is essentially identical to the incidental take issuance criteria in Section 10(a)(2)(B)(iv). The ESA's legislative history confirms this interpretation, stating that this issuance criteria be based on a finding of "not likely to jeopardize."

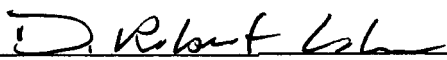
NMFS has completed a Section 7(a)(2) consultation and biological opinion analyzing whether issuance of the permit would jeopardize the continued existence of the Permit Species. NMFS' Section 7(a)(2) findings for the Permit Species (listed and unlisted) are found in Section 8 of the Biological Opinion. In summary, NMFS has considered the status of the species, the environmental baseline and the effects of the proposed action, and any indirect and cumulative effects within the HCP action area. NMFS concluded that issuance of the Incidental Take Permit to Chelan PUD for spring-run chinook salmon, summer/fall-run chinook salmon, sockeye salmon, and steelhead was not likely to jeopardize the continued existence of any of these species. Because this standard is essentially identical to the standard set forth in ESA Section 10(a)(2)(B)(iv), NMFS finds Chelan PUD's permit application and HCP meet this issuance requirement.

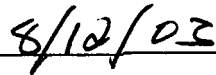
**F. The HCP has been revised to ensure any additional measures that NMFS finds necessary or appropriate will be implemented.**

NMFS has worked closely with Chelan PUD, as well as Federal, state, and tribal representatives; American Rivers (a non-governmental organization); and representatives of Chelan PUD's power purchasers, over the last nine years in the development of the HCP. NMFS finds that the revised HCP incorporated all elements determined by NMFS to be necessary for approval of the HCP and issuance of the permit.

**IV. Conclusion**

Based on these findings, NMFS hereby determines that Chelan PUD's Incidental Take Permit Application and HCP meet the statutory and regulatory requirements for an Incidental Take Permit under Section 10(a)(2)(B) of the ESA and 50 CFR Sections 222.303 and 222.307.

  
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D. Robert Lohn  
Regional Administrator  
National Marine Fisheries Service, Northwest Region

  
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Date

**NATIONAL MARINE FISHERIES SERVICE  
SECTION 10(a)(2)(B) STATEMENT OF FINDINGS  
FOR THE ROCK ISLAND HYDROELECTRIC PROJECT**

Upon receiving a permit application and conservation plan completed in accordance with the requirements of Section 10(a)(2)(A) of the Endangered Species Act (ESA) and providing an opportunity for public comment, the National Marine Fisheries Service (NMFS) considers the issuance criteria described in Section 10(a)(2)(B) of the ESA in determining whether to issue the permit. If an application fails to meet any of the permit criteria, the permit must be denied. In addition, NMFS considers the general permit criteria in 50 CFR 222.303 and criteria specific to incidental take permits in 50 CFR 222.307. The denial of an incidental take permit must be made pursuant to Subpart D of 15 CFR part 904.

**I. Background**

Public Utility District No. 1 of Chelan County (Chelan PUD) has applied for an incidental take permit to be issued pursuant to Section 10(a)(1)(B) of the ESA for a term of 50 years to authorize take incidentally caused by the Rock Island Hydroelectric Project, licensed by the Federal Energy Regulatory Commission (FERC) as Project No. 943. The following listed and unlisted anadromous species (“Permit Species”) would be taken:

<u>Species/Evolutionarily Significant Unit</u>	<u>ESA Listing Status</u>
Upper Columbia River (UCR) steelhead [ <i>Oncorhynchus mykiss</i> ]	Endangered
UCR spring-run chinook salmon [ <i>O. tshawytscha</i> ]	Endangered
UCR summer/fall-run chinook salmon [ <i>O. tshawytscha</i> ]	Not Warranted
Lake Wenatchee sockeye salmon [ <i>O. nerka</i> ]	Not Warranted
Okanogan River sockeye salmon [ <i>O. nerka</i> ]	Not Warranted

The incidental take permit will authorize the incidental take of the listed species. NMFS’ findings with respect to the unlisted stocks are for the purpose of recording NMFS’ current evaluation of the issuance criteria for these stocks for consideration in the event they are later listed. Project operations will also result in take of reintroduced non-indigenous coho salmon (*O. kisutch*). This species is not considered as one of the Permit Species, because it cannot be listed in the future. Coho and the Permit Species are referred to collectively as “Plan Species.”

NMFS published a notice of its receipt of a revised application for incidental take permits (Permit Application) and Anadromous Fish Agreement and Habitat Conservation Plan (HCP), and the availability of these for public comment, in the Federal Register on June 25, 2002 (67 Fed. Reg. 42,755). NMFS received comments on the revised HCP as provided in Appendix B of NMFS’ Record of Decision (ROD). NMFS’ response to the revised HCP comments is provided in Appendix C of the ROD.

Chelan PUD has also applied for an incidental take permit to authorize take of listed species caused by its Rocky Reach Hydroelectric Project (FERC No. 2145). Furthermore, Public Utility District No. 1 of Douglas County (Douglas PUD) has also applied for an incidental take permit to authorize take at its Wells Hydroelectric Project (FERC No. 2149). NMFS intends to issue a ROD considering all three projects and separate statements of findings for each of the three projects.

Under the permit, Chelan PUD would operate its Rock Island Hydroelectric Project and implement fish protection and mitigation measures in accordance with its HCP. The HCP sets forth specific performance standards that relate to the survival of each Permit Species and measures to mitigate for impacts to coho. The HCP defines an overall performance standard to achieve no net impact to the species migrating through the project. This includes a 91 percent combined adult and juvenile project survival rate through the project and compensation for the 9 percent unavoidable project mortality provided through hatchery and tributary programs. Current hatchery production levels affecting ESA-listed species have previously been analyzed under the ESA and are addressed by Section 10(a)(1)(A) enhancement permits (Permit Nos. 1094 and 1196) issued to the Washington Department of Fish and Wildlife (WDFW).

This Statement of Findings is based on information and analysis provided in Chelan PUD's Section 10(a)(1)(B) Permit Application and HCP; NMFS' Final Environmental Impact Statement (December, 2002)(FEIS); and NMFS' *Biological Opinion, Unlisted Species Analysis, and Magnuson-Stevens Fishery Conservation and Management Act Consultation for proposed issuance of a Section 10 Incidental Take Permit to Public Utility District No. 1 of Chelan County for the Rocky Island Hydroelectric Project (FERC No. 943) Anadromous Fish Agreement and Habitat Conservation Plan and construction of a small turbine in the attraction water conduit of an adult fishway* (Biological Opinion), all of which are incorporated here by reference.

## **II. General Regulatory Issuance Criteria**

### **A. Issuance criteria specific to incidental take permits.**

NMFS considered and analyzed the following regulatory criteria, which are specific to incidental take permit decisions (50 CFR 222.307(c)(1)):

1. the status of affected species or stock;
2. the potential severity of direct, indirect, and cumulative impacts on the species or stocks and habitat as a result of the proposed activity;
3. the availability of effective monitoring techniques;
4. the use of best available technology for minimizing or mitigating impacts; and
5. the views of the public, scientists, and other interested parties knowledgeable of the species or stocks or other matters related to the application.

1. Status of the species. The Biological Opinion evaluated the status of the Permit Species affected by the HCP (Section 4) and the environmental baseline of the Permit Species and their habitat (Section 5). In sum, NMFS found in its Biological Opinion that listed stocks affected by the Rock Island Hydroelectric Project were in decline, and that the unlisted stocks were stable or increasing.

2. Direct, indirect, and cumulative impacts of implementing the proposed action. In addition, NMFS considered in Section 6 of its Biological Opinion the direct and indirect impacts of implementation of the HCP at the Rock Island Hydroelectric Project (both independent of and in conjunction with the Wells and Rocky Reach hydroelectric projects). Furthermore, NMFS considered, for ESA purposes, the cumulative effects of Federal, State, and private actions in Sections 5 and 7 of its Biological Opinion, and the cumulative impacts of this action for NEPA purposes in the FEIS. NMFS found that the HCP



would improve survival through the project for all Permit Species and not appreciably reduce the likelihood of survival and recovery of the Permit Species in the wild.

3. Availability of effective monitoring techniques. Monitoring of the implementation of the HCP and the effectiveness of the HCP prescriptions (i.e., survival standards) are a critical feature of this HCP. Monitoring reports will be completed and submitted to the NMFS and the U.S. Fish and Wildlife Service (USFWS) according to the specific schedules required in the HCP or in the Incidental Take Statement of the Biological Opinion, or as otherwise agreed to by the members of each HCP committee. Monitoring and adaptive management shall occur throughout the term of the HCP. The HCP includes specific provisions to address an inability to measure the survival of certain species (e.g., sockeye and subyearling chinook) by using surrogate measurements of survival at the dam until technology to measure project survival is developed. The HCPs require the use of the new monitoring technologies as they become available.

4. Use of the best available technology to minimize and mitigate take. The measures established in this HCP to improve the survival of migrating adult and juvenile steelhead and salmon represent the most recent developments in science and technology. These include voluntary spill at spillways, juvenile bypass systems, and adult fishways. The measures defined in the HCP to minimize take at the project represent the best available technology for improving survival of fish at hydropower projects. In addition, the adaptive management approach in the HCP allows for the use of new technologies to achieve the performance standards as those technologies become available.

5. Views of others. The proposed HCP for the project is the result of over 9 years of planning and negotiations between NMFS, Chelan PUD, and other participants in the HCP process. Participants included technical, policy, and legal staff from USFWS; WDFW; the Bureau of Indian Affairs; the Confederated Tribes and Bands of the Yakama Indian Nation (Yakama); the Confederated Tribes of the Colville Reservation (Colville); the Confederated Tribes of the Umatilla Indian Reservation (Umatilla); American Rivers, Inc.; and representatives of the major wholesale purchasers of Chelan PUD's electricity. This effort culminated in the completion of three proposed anadromous fish agreements and habitat conservation plans (one each for Wells, Rocky Reach, and Rock Island hydroelectric projects) offered for signing on March 26, 2002. Chelan and Douglas PUDs, certain power purchasers, WDFW, the USFWS, the Colville Tribe, and NMFS indicated their qualified support (pending the necessary regulatory review) by signing the agreement.

NMFS received public comment during the NEPA scoping process on the Draft Environment Impact Statement (DEIS), in response to the Notice of Revised Incidental Take Permit Applications, and on the FEIS.

NMFS considered the expertise of entities that participated in the negotiations and the views of other agencies and the public expressed through comments in reaching its decision. Additional information regarding the public review process can be found in the Biological Opinion, Section 2; FEIS Section 1.7 and Appendices A – D; and in Responses to Comments in the ROD.

## **B. General permit criteria**

NMFS also considered the general permit criteria set forth in 50 CFR 222.303(e)(1). These criteria require NMFS to issue the permit unless the denial has been made pursuant to 15 CFR part 904, Subpart D; the applicant has failed to disclose information or has made false statements as to any material fact; the applicant has failed to demonstrate a valid justification for the permit or a showing of responsibility; the authorization potentially threatens a fish or wildlife population; or the applicant is not qualified.

NMFS has no evidence that the permit should be denied based on these criteria. To NMFS' knowledge, the applicant has not withheld information or made false statements as to any material facts. The applicant has demonstrated a valid justification for the permit and its responsibility. The effect of the permit on anadromous salmonids and other species is addressed in the Biological Opinion and FEIS. NMFS finds that based on the information and analysis in those documents, the permit issuance will not threaten any fish or wildlife population. NMFS finds that the applicant is otherwise fully qualified.

## **III. Incidental Take Permit Issuance Findings**

The issuance criteria of Section 10(a)(2)(B), as reiterated in NMFS regulations at 50 CFR 222.307(c)(2), require that the taking will be incidental to otherwise lawful activity; the applicant will, to the maximum extent practicable minimize and mitigate the impacts of such taking; the applicant will ensure that adequate funding for the plan will be provided; the taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild; and any additional measures that NMFS finds necessary or appropriate will be implemented.

Based on the information and analysis set forth in detail in Chelan PUD's permit application and HCP, NMFS' FEIS, and NMFS' Biological Opinion, NMFS finds:

### **A. The taking of listed species will be incidental to an otherwise lawful activity.**

NMFS anticipates that the proposed action will result in incidental take of all Permit Species through direct, indirect, and delayed mortality caused by the dams. See the Biological Opinion. NMFS finds, based on the information provided in Chelan PUD's Section 10(a)(1)(B) Permit Application, that the take at the Rock Island Hydroelectric Project is incidental to, and not the purpose of, the operation of the project for hydroelectric power production.

### **B. Chelan PUD will, to the maximum extent practicable, monitor, minimize, and mitigate the impacts of taking Permit Species associated with the Rock Island Hydroelectric Project.**

NMFS finds that implementation of the HCP will minimize and mitigate to the maximum extent practical the impacts of such taking through implementation of specific measures to improve survival through the project, by providing funding for tributary habitat improvements and hatchery production, and by committing to meet specific survival standards.

The HCP establishes an approach focusing on mitigation through avoidance of impacts, a no net impact standard for each species, compensation for unavoidable impacts, and the implementation of an adaptive management strategy. The no net impact standard consists of 91 percent combined adult and juvenile project survival goal and a 9 percent compensation for unavoidable project mortality. This 9 percent

compensation level includes 7 percent provided through hatchery programs, and 2 percent through a tributary habitat improvement program.

The HCP also identifies specific monitoring and evaluation protocols to determine if the survival goals are being met throughout the term of the agreement, and an adaptive management strategy if the survival goals are not being met (including termination or withdrawal provisions if it is determined that the standards cannot be met). These features are intended to account for the uncertainty in the scientific information concerning the Permit Species.

NMFS considered alternatives to the proposed action in its FEIS, including a no action alternative and an action alternative “Hydropower Conservation Measures to Protect Anadromous Fish” (*Alternative 2*).

Mitigation and monitoring programs for *Alternative 1* (No Action Alternative) are discussed in detail in Subsection 4.2.1 (*Alternative 1* (No Action)), and pages S-10 to S-13 of the FEIS. These programs are essentially a continuation of existing programs established through the FERC licenses or settlement agreements, with no specific provisions for additional mitigation or an adaptive management program.

Programs associated with *Alternative 2* (Hydropower Conservation Measures to Protect Anadromous Fish) are discussed in Subsection 4.2.2 (*Alternative 2*), and pages S-13 to S-21 of the FEIS. *Alternative 2* analyzed additional mitigation measures that could be implemented at all three Mid-Columbia projects. The alternative measures applicable to the Rock Island Hydroelectric Project include constructing a permanent juvenile bypass system, maximizing spill for 99 percent of the juvenile migration, and operating turbine units within 1 percent of peak turbine efficiency at all times during migration periods. While this alternative is expected to improve fish passage conditions at the project, resulting in somewhat greater survival rates over the levels described in *Alternative 1*, no specific fish passage survival goals are identified. In addition, the measures in *Alternative 2* do not include a tributary fund for off-site mitigation. In addition, although maximizing spill and construction of a bypass system may increase salmonid survival, these measures are very costly. Under the HCP alternative’s adaptive management program, such options could be pursued in the future if performance standards are not otherwise achieved. In addition, the monitoring program set forth in the HCP alternative includes all practicable means with current technology to monitor compliance and achievement of performance standards. In addition, the HCP alternative allows for the use of new monitoring techniques as technologies become available.

Therefore, based on the FEIS’s comparison of the alternatives, NMFS finds that the proposed Section 10(a)(1)(B) Permit for the HCP will, to the maximum extent practicable, monitor, minimize, and mitigate the impacts to Plan Species resulting from the otherwise lawful operation of the Rock Island Hydroelectric Project.

### **C. Chelan PUD has ensured that adequate funding for the plan will be provided.**

NMFS finds that the applicant has provided adequate assurance, in its application and by signing the HCP, that funding for implementation of the HCP will be provided.

**D. Based upon the best available scientific information, the taking will not appreciably reduce the likelihood of the survival and recovery of the Permit Species in the wild.**

Section 10(a)(2)(B)(iv) of the ESA requires that any taking authorized in the incidental take permit not appreciably reduce the likelihood of the survival and recovery of the species in the wild. Section 7(a)(2) of the ESA requires Federal agencies, in consultation with NMFS, to ensure that any federal action is "not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification [of designated critical] habitat..." NMFS' regulations define "jeopardize the continued existence of" to mean "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both survival and recovery of a listed species in the wild by reducing the reproduction, numbers or distribution of that species" (50 CFR 402.02). Thus, the "jeopardy standard" under Section 7(a)(2) as defined in the regulation is essentially identical to the incidental take issuance criteria in Section 10(a)(2)(B)(iv). The ESA's legislative history confirms this interpretation, stating that this issuance criteria be based on a finding of "not likely to jeopardize."

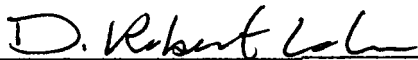
NMFS has completed a Section 7(a)(2) consultation and biological opinion analyzing whether issuance of the permit would jeopardize the continued existence of the Permit Species. NMFS' Section 7(a)(2) findings for the Permit Species (listed and unlisted) are found in Section 8 of the Biological Opinion. In summary, NMFS has considered the status of the species, the environmental baseline and the effects of the proposed action, and any indirect and cumulative effects within the HCP action area. NMFS concluded that issuance of the Incidental Take Permit to Chelan PUD for spring-run chinook salmon, summer/fall-run chinook salmon, sockeye salmon, and steelhead was not likely to jeopardize the continued existence of any of these species. Because this standard is essentially identical to the standard set forth in ESA Section 10(a)(2)(B)(iv), NMFS finds Chelan PUD's permit application and HCP meet this issuance requirement.

**E. The HCP has been revised to ensure any additional measures that NMFS finds necessary or appropriate will be implemented.**

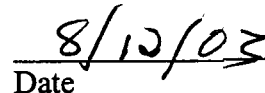
NMFS has worked closely with Chelan PUD, as well as Federal, state, and tribal representatives; American Rivers (a non-governmental organization); and representatives of Chelan PUD's power purchasers, over the last nine years in the development of the HCP. NMFS finds that the revised HCP incorporated all elements determined by NMFS to be necessary for approval of the HCP and issuance of the permit.

**IV. Conclusion**

Based on these findings, NMFS hereby determines that Chelan PUD's Incidental Take Permit Application and HCP meet the statutory and regulatory requirements for an Incidental Take Permit under Section 10(a)(2)(B) of the ESA and 50 CFR Sections 222.303 and 222.307.



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National Marine Fisheries Service, Northwest Region

  
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