CHAPTER 1, 2, 3

INTRODUCTION, BACKGROUND AND CONSULTATION HISTORY

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1 INTRODUCTION

The Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 et seq.) establishes a national program for conserving threatened and endangered species of fish, wildlife, plants, and the habitat they depend on. Section 7(a)(2) of the ESA requires Federal agencies to insure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their designated critical habitat. Federal agencies must do so in consultation with National Marine Fisheries Service (NMFS) for threatened or endangered species (ESA-listed), or designated critical habitat that may be affected by the action that are under NMFS jurisdiction (50 C.F.R. §402.14(a)). If a Federal action agency determines that an action "may affect, but is not likely to adversely affect" endangered species, threatened species, or designated critical habitat and NMFS concur with that determination for species under NMFS jurisdiction, consultation concludes informally (50 C.F.R. §402.14(b)).

Section 7(b)(3) of the ESA requires that at the conclusion of consultation, NMFS provides an Biological Opinion stating whether the Federal agency's action is likely to jeopardize ESA-listed species or destroy or adversely modify designated critical habitat. If NMFS determines that the action is likely to jeopardize listed species or destroy or adversely modify critical habitat, NMFS provides a reasonable and prudent alternative that allows the action to proceed in compliance with section 7(a)(2) of the ESA. If an incidental take is expected, section 7(b)(4) requires NMFS to provide an incidental take statement that specifies the impact of any incidental taking and includes reasonable and prudent measures to minimize such impacts and terms and conditions to implement the reasonable and prudent measures.

The action agency for this consultation is the Environmental Protection Agency (EPA). The Environmental Protection Agency has requested ESA Section 7(a)(2) consultation from the National Marine Fisheries Service on its registration of the approved uses of pesticide products containing two active ingredients pursuant to the Federal Insecticide Fungicide and Rodenticide Act (FIFRA). The two active ingredients being reviewed are: metolochlor and 1,3-Dichloropropene. Metolochlor is a seedling shoot growth inhibitor herbicide; 1,3-Dichloropropene is a soil fumigant used to control nematodes and certain soil diseases. This is the tenth biological opinion issued in a series prompted by Settlement Agreements stemming from a 2001 lawsuit (discussed below).

This consultation, biological opinion, and incidental take statement, were completed in accordance with section 7(a)(2) of the statute (16 U.S.C. 1536 (a)(2)), associated implementing regulations (50 C.F.R. §§401-16), and agency policy and guidance was conducted by NMFS Office of Protected Resources Endangered Species Act Interagency Cooperation Division (hereafter referred to as "we"). This biological opinion (Opinion) and incidental take statement were prepared by NMFS Office of Protected Resources Endangered Species Act Interagency Cooperation Division in accordance with section 7(b) of the ESA and implementing regulations at 50 C.F.R. §402.

A complete ESA consultation on EPA's registration of metolachlor and 1,3-Dichloropropene would encompass all ESA-listed species and designated critical habitat under NMFS jurisdiction. However, in this instance, as a result of the 2002 order in Washington Toxics Coalition v. EPA on EPA's registration of 37 pesticides, EPA initiated consultation specifically on listed Pacific salmonids under NMFS' jurisdiction and associated designated critical habitat in the states of California, Idaho, Oregon, and Washington. Metolachlor and 1,3-Dichloropropene are the final set of pesticides identified in the consultation schedule established in the settlement agreement. This document therefore represents the NMFS Opinion only on the effects of these actions on listed Pacific salmonids under NMFS' jurisdiction in the above-mentioned states, and the Incidental Take Statement only addresses take of those species. A complete record of this consultation is on file at the NMFS Office of Protected Resources in Silver Spring, Maryland.

Updates to the regulations governing interagency consultation (50 CFR part 402) were effective on October 28, 2019 [84 FR 44976]. As the preamble to the final rule adopting the regulations noted, "[t]his final rule does not lower or raise the bar on section 7 consultations, and it does not alter what is required or analyzed during a consultation. Instead, it improves clarity and consistency, streamlines consultations, and codifies existing practice." We have reviewed the information and analyses relied upon to complete this biological opinion in light of the updated regulations and conclude the Opinion is fully consistent with the updated regulations.

2 BACKGROUND

Pursuant to FIFRA, before a pesticide product may be sold or distributed in the U.S., it must be exempted or registered with a label identifying approved uses by EPA's Office of Pesticide Programs (OPP). Pesticide registration is the process through which EPA examines the ingredients of a pesticide; the site or crop on which it is to be used; the amount, frequency and timing of its use; and storage and disposal practices. Pesticide products (also referred to as "formulated products") may include active ingredients (a.i.s) and other ingredients, such as adjuvants and surfactants. EPA authorization of pesticide uses are categorized as FIFRA Sections 3 (new product registrations), 4 (re-registrations and special review), 18 (emergency use), or 24(c) Special Local Needs (SLN).

Metolachlor was first registered in the United States in 1976 as an herbicide for the control of weeds in a variety of agricultural crops including corn, cotton, potatoes and peanuts, among other uses. 1,3-Dichloropropene was initially registered in 1954 for use as a soil fumigant to control nematodes and certain soil diseases.

In April, 1995 EPA issued a Registration Eligibility Decision (RED) for metolachlor in which EPA concluded: "The Agency has determined that all uses of metolachlor with the exception of potatoes, soybeans, and peanuts as currently registered will not cause unreasonable risk to humans or the environment."

In December, 1998 EPA issued a Registration Eligibility Decision (RED) for 1,3-D in which EPA determined: "The Agency has concluded that 1,3-D, when labeled and used as specified in this RED document, will not cause unreasonable risks to human health or the environment."

On January 30, 2001, the Washington Toxics Coalition, Northwest Coalition for Alternatives to Pesticides, Pacific Coast Federation of Fishermen's Associations, and Institute for Fisheries Resources filed a lawsuit against EPA in the U.S. District Court for the Western District of Washington (*Wash. Toxics Coalition v. EPA*, Civ. No. C01–132C, 2002 WL 34213031 (W.D.Wash. July 2, 2002), *aff'd*, 413 F.3d 1024 (9th Cir.2005)). This lawsuit alleged that EPA violated section 7(a)(2) of the ESA by failing to consult on the effects to 26 Evolutionarily Significant Units (ESUs) of listed Pacific salmonids of its continuing approval of 54 pesticide active ingredients. On July 2, 2002, the court ruled that EPA had violated ESA section 7(a)(2) and ordered EPA to initiate interagency consultation and make determinations about effects to the salmonids on all 54 active ingredients by December 2004. Pursuant to this Court's order, between August 2002 and December 2004, EPA initiated consultations with NMFS on 37 of those pesticides EPA determined "may affect" listed salmonids; the remaining 17 active ingredients were determined to have "no effect" on listed species or their designated critical habitats.

In December 2002, EPA and the U.S. Fish and Wildlife Service and NMFS began interagency discussions for streamlining EPA's court ordered consultations.

On January 24, 2003, EPA and the Services published an Advance Notice of Proposed Rulemaking seeking public comment on improving the process by which EPA and the Services work together to protect listed species and critical habitat (68 FR 3785).

Between May and December 2003, EPA and the Services reviewed EPA's ecological risk assessment methodology and earlier drafts of EPA's "Overview of the Ecological Risk Assessment Process in the Office of Pesticide Programs, U.S. Environmental Protection Agency (Overview Document)". EPA and the Services also developed counterpart regulations to streamline the consultation process.

On January 22, 2004, the court in Wash. Toxics Coalition v. EPA, Civ. No. C01–132C entered an injunction vacating EPA's authorization of certain uses of 54 pesticide active ingredients in certain areas and imposing certain other requirements ("Interim Measures"), until issuance by NMFS of a biological opinion or other described termination event. The no-spray buffers in the proposed stipulated injunction extend 300 feet from salmon supporting waters for aerial applications and 60 feet for ground applications for these active ingredients, which include 1,3-D and metolachlor.

On January 23, 2004, EPA finalized its Overview Document which specified how EPA would conduct ecological risk assessment on pesticide registrations.

On January 26, 2004, the Services approved EPA's procedures and methods for conducting ecological risk assessments and approved interagency counterpart regulations for EPA's pesticide registration program.

On January 30, 2004, the Services published in the Federal Register (69 FR 4465) proposed joint counterpart regulations for consultation under the ESA for regulatory actions under the Federal Insecticide, Fungicide, and Rodenticide Act.

On August 5, 2004, the Services promulgated final joint counterpart regulations for EPA's ESA-related actions taken pursuant to FIFRA. These regulations and the Alternative Consultation Agreement (ACA) under the regulations allowed EPA to conduct independent analyses of potential impacts of pesticide registration on listed species and their designated critical habitats. The ACA outlined procedures to ensure EPA's risk assessment approach will produce effect determinations that reliably assess the effects of pesticides on listed species and designated critical habitat. Additionally, EPA and the Services agreed to meet annually, or more frequently as may be deemed appropriate. The intention of these meetings was to identify new research and other activities that may improve EPA's current approach for assessing the potential ecological risks posed by use of a pesticide to listed species or designated critical habitat.

On September 23, 2004, the Washington Toxics Coalition and others challenged the counterpart regulations in the U.S. District Court for the Western District of Washington, Civ. No. 04-1998, alleging that the regulations were not authorized by the ESA and that the Services had not complied with the Administrative Procedure Act and the National Environmental Policy Act (NEPA) in promulgating these counterpart regulations.

On August 24, 2006, the court determined the Services did not implement NEPA procedures properly during their promulgation of the joint counterpart regulations for EPA actions under FIFRA. Additionally, the court determined that the "not likely to adversely affect" and emergency consultation provisions of the counterpart regulations waiving Services' review were arbitrary and capricious and contrary to the substantive requirements of ESA section 7(a)(2). The court determined that EPA may write its own biological opinions under the alternative formal consultation procedures, as they required the Services' concurrence with EPA's conclusions. Washington Toxics Coalition, 457 F.Supp. 2d 1158 (W.D.Wash. 2006).

On November 5, 2007, the Northwest Coalition for Alternatives to Pesticides (NCAP) and others filed a legal complaint in the U.S. District Court for the Western District of Washington, Civ. No. 07 1791, against NMFS for its unreasonable delay in completing the section 7 consultations for EPA's registration of the remaining 37 (of the original 54) pesticide active ingredients.

On July 30, 2008, NMFS entered a settlement agreement with NCAP. NCAP had sued NMFS for failing to complete consultation on 37 pesticide active ingredients (17 of the original 54 active ingredients received "no effect" determinations and thus did not require formal

consultation) for impacts to listed salmon ESUs. In the settlement agreement NMFS agreed on a schedule for completion of consultation on each active ingredient, with the final consultation due in early 2013. Subsequent settlement agreements (described below) have revised this schedule, with the consultation on the final active ingredient of the 37 now due by December 31, 2020.

On November 18, 2008, NMFS issued the first biological opinion under this schedule for three organophosphates: chlorpyrifos, diazinon, and malathion. This Opinion concluded that EPA's action was likely to jeopardize all but one of the listed salmon ESUs, and likely to adversely modify their designated critical habitat. NMFS included a reasonable and prudent alternative (RPA) that would allow the action to proceed without likely jeopardy and likely adverse modification. The RPA included no-application buffers, as well as other measures.

On April 1, 2009, Dow AgroSciences, LLC, Makhteshim Agan of North America, Inc. and Cheminova Inc., USA, challenged the validity of the OP BiOp under the ESA and the Administrative Procedure Act ("APA"), Dow AgroSciences, LLC v. NMFS, No. 09-cv00824 (D. Md.) ("Dow") (Dkt. No. 1)

On April 20, 2009, NMFS issued the second biological opinion ("Carbamate BiOp") under the NCAP schedule concerning the effects on listed salmonids and their critical habitat of three of the 37 pesticides at issue in Washington Toxics: carbaryl, carbofuran, and methomyl.

On August 31, 2010, NMFS issued its third biological opinion under the NCAP schedule. This third consultation evaluated 12 organophosphate insecticides: azinphos methyl, bensulide, dimethoate, disulfoton, ethoprop, fenamiphos, methamidophos, methidathion, methyl parathion, naled, phorate, and phosmet.

On March 10, 2011, EPA, on behalf of itself and the Departments of the Interior, Commerce and Agriculture, asked the National Academy of Sciences ("NAS") to evaluate the differing risk assessment approaches used by these agencies with regard to pesticides and endangered species. Specifically, the committee was asked to evaluate EPA's and the Services' methods for determining risks to listed species posed by pesticides and to answer questions concerning the identification of the best scientific data, the toxicological effects of pesticides and chemical mixtures, the approaches and assumptions used in various models, the analysis of uncertainty, and the use of geospatial data.

On June 30, 2011, NMFS issued its fourth biological opinion under the NCAP schedule. This fourth consultation evaluated four herbicides: 2,4-D, triclopyr BEE, diuron and linuron; and 2 fungicides: captan and chlorothalonil.

In October 2011, the U.S. District Court for the District of Maryland granted NMFS' cross-motion for summary judgment and denied plaintiff's motion for summary judgment, Dow AgroSciences, LLC v. NMFS, 821 F. Supp. 2d 792 (D. Md. 2011) in regards to DoW

AgroSciences' challenge of the 2008 biological opinion for chlorpyrifos, malathion, and diazinon. The dismissed case was subsequently appealed by plaintiffs to the Fourth Circuit (Dow AgroSciences, LLC v. NMFS, 707 F.3d 462 (4th Cir. 2013)).

On May 31, 2012, NMFS issued its fifth biological opinion under the NCAP schedule. This fifth consultation evaluated herbicides: oryzalin, trifluralin, and pendimethalin.

On July 2, 2012, NMFS issued its sixth biological opinion under the NCAP schedule. This sixth consultation evaluated the herbicide thiobencarb.

On February 21, 2013, the U.S. Circuit Court for the Fourth Circuit issued an Opinion which reversed the judgement of the district court (October 2011) and remanded the 2008 OP BiOp (chlorpyrifos, malathion, and diazinon) to NMFS for further explanation on exposure assumptions, reliance on water quality monitoring data, and the technologic and economic feasibility of RPAs.

On April 30, 2013, the NAS issued a report entitled "Assessing Risks to Endangered and Threatened Species from Pesticides". In light of the recommendations in the NAS Report, NMFS, FWS, EPA, and the U.S. Department of Agriculture (USDA) developed a common approach to risk assessment for pesticides. The NAS report contained recommendations on scientific and technical issues related to pesticide consultations under the ESA and FIFRA. Since then, the Agencies have worked to implement the recommendations. Joint efforts to date include: collaborative relationship building between EPA, NMFS, FWS and USDA; clarified roles and responsibilities for the EPA, FWS, NMFS and USDA; agency processes designed to improve stakeholder engagement and transparency during review and consultation processes; multiple joint agency workshops resulting in interim approaches to assessing risks to threatened and endangered species from pesticides; a plan and schedule for applying the interim approaches to a set of pesticide compounds; and multiple workshops and meetings with stakeholders to improve transparency as the pesticide consultation process evolves.

On May 21, 2014, NMFS and NCAP revised the settlement agreement with NMFS to issue a new biological opinion on the organophosphates chlorpyrifos, malathion, and diazinon by December 31, 2017. The agreement noted that NMFS, FWS, and EPA were working to develop a common approach to risk assessment in pesticides consultations that would implement the recommendations of the 2013 National Academies of Sciences report. As part of the settlement NMFS agreed to deadlines for biological opinions which included 1,3-dichloropropene and metolachlor.

On January 7, 2015 NMFS issued its seventh biological opinion under the NCAP schedule. This seventh consultation evaluated the pesticides diflubenzuron, fenbutatin oxide, and propargite.

On December 29, 2017 NMFS, pursuant to the stipulation filed in NCAP v. NMFS, cv-1791-RSL, completed a new nationwide biological opinion for chlorpyrifos, malathion and diazinon.

3 CONSULTATION HISTORY

3.1 Metolachlor

On November 29, 2002 EPA submitted to NMFS a request for consultation on the effects of the pesticide racemic-metolachlor, pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.).

On June 19, 2006 EPA finalized the biological evaluation for metolachlor covering 26 listed salmonid species per Washington Toxics Coalition v. EPA, No. C-01-132 (W.D. Wash. July 2, 2002) Court Order. The 2006 assessment reached the following conclusions regarding metolachlor use and the 26 ESUs of listed salmonids in California and the Pacific Northwest:

1. Metolachlor is expected to have no direct effect on the listed salmonids.

2. Metolachlor is expected to have no appreciable effect on designated critical habitat for the listed salmonids.

3. Metolachlor is expected to have no effect on the listed salmonid prey.

4. Metolachlor is not likely to adversely affect listed salmonids through effects on aquatic plants.

5. Metolachlor is not likely to adversely affect listed salmonids through effects on riparian vegetation.

On June 23, 2006 EPA withdrew its November 29, 2002 request for formal consultation and requested concurrence on a “not likely to adversely affect” (NLAA) determination for the registration of metolachlor, based on the 2006 biological evaluation.

On June 19, 2007 NMFS responded to EPA’s request for concurrence with a letter indicating that NMFS “does not concur with the effects determinations for Pacific salmonids and steelhead and recommends that EPA initiate formal consultation on the re-registration and use of racemic metolachlor”. NMFS did, however, agree with EPA’s NLAA determination for one species: Ozette Lake Sockeye.

On July 13, 2007 NMFS submitted to EPA a technical review of EPA’s pesticide effects determination for racemic metolachlor on federally listed salmonid species in the Pacific Northwest and California.

On November 5, 2007, the Northwest Coalition for Alternatives to Pesticides (NCAP) and others filed a legal complaint in the U.S. District Court for the Western District of Washington, Civ. No. 07 1791, against NMFS for its unreasonable delay in completing the section 7 consultations for EPA's registration of the remaining 37 (of the original 54) pesticide active ingredients. The resulting settlement, and subsequent related settlements, revised the schedule for completion of consultation on each active ingredient. The court ordered due date for metolachlor was eventually set for December 31, 2020.

On September 29, 2011 NMFS hosted an initial meeting with the previously identified metolachlor applicants: Sipcam, Loveland, and MANA.

On September 19, 2019 EPA released the "Metolachlor/S-Metolachlor: Draft Ecological Risk Assessment for Registration Review."

On December 9, 2019 NMFS requested that EPA identify the applicants relevant to NMFS' Biological Opinion on 1,3-D and metolachlor. NMFS also requested that EPA provide updated Summary Use and Usage Matrix (SUUM) reports for both compounds.

On December 17, 2019 EPA provided NMFS a link to the Pesticide Product Label System for access to active Section 3 labels. EPA indicated that Section 24C labels and SUUM reports would be provided in February and April for 1,3-D and metolachlor, respectively.

On January 14, 2020 NMFS requested that EPA identify and provide a list of applicants relevant to NMFS' Biological Opinion on 1,3-D and metolachlor.

On January 30, 2020 EPA provided NMFS with a list of technical registrants/applicants, including point of contact information for each. EPA recommended that NMFS Biological Opinion evaluate both racemic-metolachlor as well as s-metolachlor.

On January 31, 2020 NMFS contacted the applicants identified by EPA for metolachlor (Adama Agan Ltd.; Drexel; Sipcam Agro USA, Inc.; Sharda Cropchem Ltd.; Albaugh, LLC; Helm Agro; Greenfields Marketing Ltd.; Syngenta; Extremis, LLC; and UPL Delaware Inc.). NMFS informed the applicants that the agency was preparing a Biological Opinion. NMFS requested that the applicants inform NMFS if any of the label information provided in EPA's 2019 draft ecological risk assessment review of metolachlor was incorrect or anticipated to change.

On February 14, 2020 Extremis LLC commented that EPA's draft ecological risk assessment review of metolachlor appeared to be missing some labeled use patterns. Details were provided for follow-up.

On April 30, 2020 EPA submitted to NMFS the "Metolachlor (108801) National and State Use and Usage Summary" report as well as the current collection of 24C labels for metolachlor and S-metolachlor.

On June 4, 2020 EPA submitted to NMFS a revised list of applicants for metolachlor/s-metolachlor which included a new technical registrant: INMES LLC.

On June 5, 2020 NMFS contacted INMES LLC to inform them that the agency was preparing a Biological Opinion. NMFS requested that INMES LLC inform NMFS if any of the label information provided in EPA's 2019 draft ecological risk assessment review of metolachlor was incorrect or anticipated to change.

On June 25, 2020 Syngenta submitted to NMFS a number of toxicological studies regarding metolachlor which had previously been requested by NMFS.

On July 22, 2020 NMFS sent preliminary draft chapters to EPA and metolachlor applicants for review. The draft chapters sent included: introduction, background, consultation history, description of action, action area, summary of LAA determinations, status of the species, and cumulative effects.

On August 17, 2020 Syngenta provided NMFS with three studies which had been requested by NMFS (MRID: 43928911; 46829506; 44995903).

On October 2, 2020 NMFS sent additional preliminary draft chapter to EPA and metolachlor applicants for review. The draft chapters sent included: assessment framework, introduction to the effects analysis; species effects analysis; introduction to habitat analysis; habitat effect analysis; species integration and synthesis, habitat integration and syntheses. The chapters sent included NMFS draft conclusions.

On October 16, 2020 NMFS was granted an extension to the court-ordered deadline of December 31, 2020. The deadline in the settlement agreement was thus amended to read: "NMFS agrees to finalize and publish a biological opinion concerning the effects of 1,3-D and racemic metolachlor by June 30, 2021."

On November 18, 2020 NMFS sent an additional preliminary draft chapter to EPA and metolachlor applicants for review. The draft chapter included: reasonable and prudent measures, incidental take statement, terms and conditions, conservation recommendations, and reinitiation notice.

On December 7, 2020 NMFS met with EPA and metolachlor applicants to discuss the preliminary draft terms and conditions of the RPM. Following the meeting NMFS sent EPA and metolachlor applicants an updated draft of the RPM chapter for review.

[Updated to 1-6-21]

3.2 1,3-Dichloropropene

On April 19, 2004 EPA finalized the biological evaluation for 1,3-D. The 2004 biological evaluation concluded that "the use of 1,3-Dichloropropene may affect but is not likely to adversely affect 11 ESUs when used according to labeled application directions and will have no effect on 15 ESUs in this assessment" (see **Table 1**).

Table 1. Summary conclusions on specific ESUs of listed Pacific salmon and steelhead for 1,3-Dichloropropene; adapted from EPA's biological evaluation of 1,3-D (Table 27). EPA did not make effects determinations to designated critical habitat.

Species	ESU	Finding (2004)
Chinook Salmon	California Coastal	No Effect
Chinook Salmon	Central Valley spring-run	No Effect
Chinook Salmon	Lower Columbia	May Affect, NLAA
Chinook Salmon	Puget Sound	May Affect, NLAA
Chinook Salmon	Sacramento River winter-run	May Affect, NLAA
Chinook Salmon	Snake River fall-run	May Affect, NLAA
Chinook Salmon	Snake River spring/summer-run	May Affect, NLAA
Chinook Salmon	Upper Columbia spring-run	May Affect, NLAA
Chinook Salmon	Upper Willamette	May Affect, NLAA
Chum Salmon	Columbia River	May Affect, NLAA
Chum Salmon	Hood Canal summer-run	No Effect
Coho Salmon	Central California	No Effect
Coho Salmon	Oregon Coast	No Effect
Coho Salmon	Southern Oregon/Northern California Coast	No Effect
Sockeye Salmon	Ozette Lake	No Effect
Sockeye Salmon	Snake River	No Effect
Steelhead	Central California Coast	No Effect
Steelhead	Central Valley, California	No Effect
Steelhead	Lower Columbia River	No Effect
Steelhead	Middle Columbia River	May Affect, NLAA
Steelhead	Northern California	No Effect

Steelhead	Snake River Basin	May Affect, NLAA
Steelhead	South-Central California	No Effect
Steelhead	Southern California	No Effect
Steelhead	Upper Columbia River	May Affect, NLAA
Steelhead	Upper Willamette River	No Effect

On July 29, 2004 EPA requested NMFS' concurrence on the NLAA determination made in the 2004 biological evaluation.

On November 5, 2007, the Northwest Coalition for Alternatives to Pesticides (NCAP) and others filed a legal complaint in the U.S. District Court for the Western District of Washington, Civ. No. 07 1791, against NMFS for its unreasonable delay in completing the section 7 consultations for EPA's registration of the remaining 37 (of the original 54) pesticide active ingredients. The resulting settlement, and subsequent related settlements, revised the schedule for completion of consultation on each active ingredient. The court ordered due date for 1,3-D was eventually set for December 31, 2020.

On December 9, 2019 NMFS requested that EPA identify the applicants relevant to NMFS' Biological Opinion on 1,3-D and metolachlor. NMFS also requested that EPA provide updated Summary Use and Usage Matrix (SUUM) reports for both compounds.

On December 10, 2019 EPA released the "1,3-dichlorpopropene (1,3-D): Draft Risk Assessment (DRA) in Support of Registration Review."

On December 17, 2019 EPA provided NMFS a link to the Pesticide Product Label System for access to active Section 3 labels. EPA indicated that Section 24C labels and SUUM reports would be provided in February and April for 1,3-D and metolachlor, respectively.

On January 14, 2020 NMFS requested that EPA identify and provide a list of applicants relevant to NMFS' Biological Opinion on 1,3-D and metolachlor.

On January 30, 2020 EPA provided NMFS with a list of technical registrants/applicants, including point of contact information for each.

On January 31, 2020 NMFS contacted the sole applicant identified by EPA for 1,3-D, Salt Lakes Holding LLC. NMFS informed the applicant that the agency was preparing a Biological Opinion and requested updated label information.

On February 9, 2020 Salt Lake Holdings LLC provided NMFS with a label summary generated in 2013. Salt Lake Holdings LLC stated that no additional uses had been added since the 2013 summary was generated.

On February 28, 2020 EPA provided NMFS with 35 24C labels relevant to 1,3-D. EPA also provided NMFS with the "Telone (1,3-Dichloropropene) (029001) National and State Summary Use and Usage Matrix" memorandum.

On March 11, 2020 NMFS met with representatives from Salt Lake Holdings LLC to discuss 1,3-D exposure estimate modeling techniques and other components of the consultation.

On April 15, 2020 Salt Lake Holdings LLC submitted to NMFS a number of studies and additional information to support NMFS' consultation on 1,3-D.

On May 21, 2020 Salt Lake Holdings LLC provided NMFS with additional ecotoxicology studies on 1,3-D and its metabolites.

On June 23, 2020 NMFS requested additional information from Salt Lake Holdings LLC regarding 1,3-D application rates as well as information to help inform exposure estimates for chloropicrin, a common co-active ingredient in 1,3-D formulated products.

On June 25 NMFS requested additional information from EPA regarding 1,3-D application rates.

On July 22, 2020 NMFS sent preliminary draft chapters to EPA and 1,3-D applicants for review. The draft chapters sent included: introduction, background, consultation history, description of action, action area, summary of LAA determinations, status of the species, and cumulative effects.

On October 2, 2020 NMFS sent additional preliminary draft chapter to EPA and 1,3-D applicants for review. The draft chapters sent included: assessment framework, introduction to the effects analysis; species effects analysis; introduction to habitat analysis; habitat effect analysis; species integration and synthesis, habitat integration and syntheses. The chapters sent included NMFS draft conclusions.

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On November 18, 2020 NMFS sent an additional preliminary draft chapter to EPA and 1,3-D applicants for review. The draft chapter included: reasonable and prudent measures, incidental take statement, terms and conditions, conservation recommendations, and reinitiation notice.

On December 9, 2020 NMFS met with EPA and 1,3-D applicants to discuss the preliminary draft terms and conditions of the RPM. Following the meeting NMFS sent EPA and 1,3-D applicants an updated draft of the RPM chapter for review.