MEMORANDUM OF UNDERSTANDING

between the

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

and the

PACIFIC STATES MARINE FISHERIES COMMISSION

This Memorandum of Understanding (MOU) between California Department of Fish and Wildlife (CDFW), and the Pacific States Marine Fisheries Commission (PSMFC) sets forth an agreement on the terms for sharing fisheries data between the two parties.

1.0 Purpose

CDFW is the State of California (State) agency responsible for the management, conservation, and protection of California's marine resources. This responsibility includes the collection and management of accurate fisheries information which is disseminated when appropriate to support management of Pacific coast fisheries. CDFW works closely with the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) offices of the West Coast Region (WCR), the Northwest Fisheries Science Center (NWFSC), and the Southwest Fisheries Science Center (SWFSC), along with the Pacific Fishery Management Council (PFMC), the International Pacific Halibut Commission (IPHC), and the and the Inter-American Tropical Tuna Commission (IATTC) to support management of federal and international fisheries, (including salmon, groundfish, coastal pelagic species, and highly migratory species) that occur off the coast of California.

PSMFC, an interstate agency, promotes and supports policies and actions to conserve, develop, and manage fishery resources in five West Coast states including California. As authorized by Congress, PSMFC obtains and shares fisheries information to guide state and federal agencies to develop and deploy the most effective policies for regional fisheries management. Activities facilitated by PSMFC include coordinating fisheries research and monitoring, data collection, data integration and management, as well as managing a wide variety of projects. While PSMFC has no regulatory or management authority, it provides a number of services that support fisheries management by WCR, NWFSC, SWFSC, PFMC, and IATTC. These services may include fisheries monitoring, data collection, and data management.

Coordination and collaboration between CDFW and PSMFC is essential in order to support state, federal, and international fisheries management and includes working closely with the WCR, NWFSC, SWFSC, PFMC, and IATTC, along with NMFS Pacific Islands Regional Office (PIRO)

and Pacific Islands Fisheries Science Center (PIFSC), the Western and Central Pacific Fisheries Commission (WCPFC), and the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC). This MOU addresses activities related to the sharing and use of fisheries data that are deemed necessary for coordinated management of Pacific coast fisheries by the aforementioned organizations. Specifically, the purposes of this MOU are:

- a) To specify the types of fisheries data that may be shared, what these data may be used for, and the duties and responsibilities of each of the parties in regard to these data;
- b) To ensure the security, maintenance, and confidentiality of information provided by fishery participants are done so in accordance with applicable laws and regulations; and
- c) To allow for access to and use of data as specified in this MOU and the associated appendices.

2.0 References and Authority

- a) CDFW is subject to laws and regulations which provide the authority for maintaining the confidentiality of fisheries data, and for the exchange and use of those data under State laws and regulations. The primary authorities are contained in, but not limited to:
 - i. California Fish and Game Code Division 1, Chapter 3, Article 5, Section 391; Division 2, Chapter 3, Article 2, § 1050.6; Division 6, Part 1.7, Chapter 3, § 7060; Division 6, Part 1.7, Chapter 8, § 7090; Division 6, Part 3, Chapter 1, Article 2, commencing with § 7700, to Article 7.5, commencing with § 8043, inclusive; Division 9, Chapter 1, § 12000; and Division 11, commencing with § 14000, inclusive;
 - ii. California Code of Regulations Title 14, § 105.5(a), 190, 195, 197
 - iii. California Public Records Act (PRA), California Government Code Section 6250 et seq.;
 - iv. Information Practices Act, California Civil Code Section 1798 et seq.;
 - v. California Online Privacy Protection Act, California Business and Professions Code Chapter 22 et seq.; and
 - vi. State Administrative Manual Section 5300.
- b) PSMFC are subject to laws and regulations which provide the authority for maintaining the confidentiality of fisheries data provided to PSMFC pursuant to this MOU, and for the exchange and use of those data under federal laws and regulations. The primary authorities are contained in, but not limited to:
 - i. The Magnuson-Stevens Fishery Management and Conservation Act (16 U.S.C. § 1881a.(a) and 1881a.(b);
 - ii. The Privacy Act (5 U.S.C.\(552a \);

- iii. The Trade Secrets Act (18 U.S.C. §1905);
- iv. National Institute of Standards and Technology Special Publication (NIST SP) 800-53;
- v. Federal Information Processing Standards (FIPS) Publications 199 and 200; and
- vi. Freedom of Information Act (FOIA) (5 U.S.C. §552).

3.0 Definitions

For the purposes of this MOU, the following are defined:

Data means: fisheries information that is collected or stored in digital or physical format.

Confidential Data means: information containing personal information (Civ. Code, § 1798.3, subd. (a)) or personally identifiable information (Bus. & Prof. Code, § 22577); information covered under Fish and Game Code § 8022 and § 1050.6; individual recreational license information; and observer data that would directly or indirectly disclose the identity of an individual, boat or business or would disclose the fishing locations of individual commercial vessels and commercial passenger fishing vessels. Additionally, data can be deemed confidential through explicit FIPS 199 classification.

Non-confidential Data means: data without confidential attributes and that does not disclose the individual record or business of any person (see California Fish & Game Code, § 8022). The data aggregates or summaries must take into consideration the types of fisheries (sector, target species and gear types), and the aggregated information must be representative of three or more fishermen, vessels, and fish businesses.

CDFW Data means: the Confidential Data collected by CDFW through licensing and vessel registration and data collection programs for commercial and recreational fisheries pursuant to Section 2(a)(i) of this MOU. CDFW Data that may be shared with PSMFC include licensing data, commercial landings, vessel logbooks, and recreational survey data used by CDFW for state fisheries management.

PSMFC Data means: the Confidential Data received by PSMFC pursuant to Section 2(b)(i) of this MOU, and jointly used by PSMFC and CDFW for federal fisheries management. Data are stored on PSMFC equipment and shared with CDFW.

Confidential Fisheries Materials means: all documentation, copies, notes, diagrams, computer memory media and other materials that contain Confidential Data; and non-summarized confidential fisheries data.

Summaries means: prepared synopses of data. Summaries may be non-confidential or confidential, as defined above.

Published means: Non-confidential data summaries made available for the public to view.

4.0 Description of Data and Intended Use

The specific types of fisheries data covered under this MOU are provided in the attached appendices. In addition, these appendices provide a description of each program that collects, manages, and/or maintains these data.

- a) PSMFC and CDFW agree to maintain and use Confidential Data provided to them through this MOU solely for the intended use as described in each of the appendices.
- b) If any CDFW Data covered under this MOU are used by PSMFC for any purpose other than authorized under this MOU, further access to any CDFW Data will be denied, and this MOU may be terminated as described in Section 12.0.

5.0 Data Transfer

All data that are transferred through internal and external networks shall adhere to NIST SP 800-53 SC-8 Transmission Confidentiality and Integrity. All data that are transferred by means other than internal and external networks shall adhere to NIST SP 800-53 MP-5 Media Transport.

6.0 Constraints on Use of CDFW Data

- a) PSMFC will in all respects treat CDFW Data as the proprietary information of CDFW in accordance with all procedures reasonably necessary to protect CDFW's proprietary rights therein, consistent with the legal authorities available to PSMFC as listed in Section 2.0. PSMFC will maintain the confidentiality of CDFW Data consistent with legal authorities available to the PSMFC as listed in Section 2.0. In the event that PSMFC receives a formal request for CDFW Data pursuant to PRA, FOIA, or any other applicable law, PSMFC shall notify CDFW prior to responding to the request.
- b) PSMFC shall only use CDFW Data as specified in the attached appendices.
- c) PSMFC shall restrict disclosure of CDFW Data to those individuals and contractors working for PSMFC and those individuals listed in the applicable appendices involved in state and federal fisheries management who have a need to know such information in order to accomplish the identified uses specified in the attached appendices. PSMFC shall advise such individuals, before they receive access to CDFW Data, of PSMFC obligations under this MOU. PSMFC shall ensure that all employees or agents (contractors) shall comply with the provisions of this MOU, including requiring all agents (contractors) to sign a confidentiality agreement consistent with the provisions of this MOU. A list of all individuals and contractors who have access to CDFW Data shall be provided to CDFW upon request.

7.0 Data Security

- a) To protect shared Confidential Data from unauthorized physical and electronic access and to ensure the confidentiality, availability and integrity of all shared data, PSMFC and CDFW shall meet or exceed industry best practices for physical security, data security, network security, and access controls, both technically and procedurally, including compliance with FIPS Publication 200, Minimum Security Requirements for Federal Information and Information Systems, and NIST SP 800-53, Security and Privacy Controls for Federal Information Systems and Organizations.
- b) PSMFC and CDFW will apply security patches and upgrades, and keep virus software up-to-date on all systems on which the data may be used.
- c) All shared CDFW data shall be housed and maintained only within PSMFC's internal and cloud-based data computer systems stored within the Continental U.S., unless otherwise authorized for disclosure pursuant to Section 6(c) of this MOU.
- d) In the event that CDFW Data are improperly accessed or breached, PSMFC shall take measures to prevent further access to CDFW Data or further breach incidents. In addition, PSMFC shall notify CDFW within 24 hours of discovering any unauthorized access; notification may occur via telephone or email. CDFW will confer with PSMFC prior to sending notice to affected individuals. PSMFC will perform an investigation of the incident and shall cooperate with inquiries by CDFW to the extent permitted by federal law. Despite any preventive measures taken by PSMFC, CDFW retains the right to terminate this MOU consistent with Section 12.0 of this Agreement.
- e) PSMFC shall be responsible for all costs incurred by CDFW due to a security incident resulting from PSMFC's failure to perform or negligent acts of its personnel, and resulting in an unauthorized disclosure, release, access, review, or loss theft, misuse or destruction of shared Confidential Data. If CDFW reasonably determines that notice to the individuals whose data have been lost or breached through such incident is appropriate, PSMFC will bear any and all costs associated with the notice or any mitigation deemed necessary by CDFW to comply with state laws and regulations, including but not limited to California State Administrative Manuel (SAM) 5340, Statewide Information Management Manual (SIMM) 5340-A, and SIMM 5340-C. These costs include, but are not limited to, staff time, material costs, postage, media announcements, and other identifiable costs associated with the breach or loss of data. CDFW shall have the right to conduct its own independent investigation of a security incident involving CDFW Data, and PSMFC shall cooperate fully in such investigations.

- f) To ensure data integrity, CDFW and PSMFC will conduct full backups of their databases using industry best practices. CDFW reserves the right to request backup parameter information to ensure backup procedures meet California SAM and SIMM requirements.
- g) Upon termination of this agreement, PSMFC will dispose of any archived CDFW Data in compliance with Section 12.0(d).

8.0 Authentication and Access

- a) Remote access to all data shall adhere to the following NIST SP 800-53 sections:
 - AC-7 Unsuccessful Logon Attempts
 - AC-17 Remote Access
 - IA-2 Identification and Authentication
 - IA-4 Identifier Management
 - IA-5 Authenticator Management
 - SC-23 Session Authenticity
- b) These sections shall be applied to all internal and public facing websites with access to data and virtual private network (VPN) connections. Additionally, all websites shall be secured using encryption equal to or greater than TLS 1.2/1.3.

9.0 Disposition of Records

All CDFW Data received by PSMFC under this MOU that are no longer needed by PSMFC as mutually determined by both parties, for the purposes described in the appendices shall be removed in the same manner as noted below in Section 12.0.

10.0 Period of Agreement

- a) This MOU shall be in effect from the date of last signature for a period of five years. This agreement may be extended by consent and signature of both parties.
- b) This agreement may be subject to reconsideration at any time upon request by either of the parties entering into the agreement.

11.0 Amendments and Alterations to this MOU

This MOU and associated appendices constitute the entire agreement between CDFW and PSMFC for the purpose of sharing fisheries data, including CDFW Data, for the stated purpose, and no other statements or representations, written or oral, shall be deemed to exist or to bind the parties for the stated purpose. CDFW and PSMFC may amend this MOU at any time, provided that the amendment is with the consent of both parties, in writing, and signed by an authorized person.

12.0 Termination of the MOU

- a) This MOU may be terminated immediately following a notice in writing from CDFW to PSMFC that CDFW Data have been used for a purpose other than stated in the appendices, or that the terms in Sections 6.0 and 7.0 have been breached.
- b) This MOU may be terminated by either party through a 10-day notice in writing if terms other than Sections 6.0 and 7.0 within the MOU have been breached and a resolution between the parties cannot be reached pursuant to Section 13.0.
- c) This MOU may be terminated for any reason by either party with a 30-day written notice.
- d) In the event that this MOU is terminated due to a breach by one of the parties, or in the event CDFW or PSMFC terminates this MOU, or PSMFC ceases operation, the parties will do the following:
 - i. PSMFC shall permanently remove access to all CDFW Data and Confidential Fisheries Materials covered by this MOU and identified in each of the appendices. PSMFC will return all CDFW Data, backups, and Confidential Fisheries Materials. Once CDFW Data are returned, PSMFC shall sanitize CDFW Data in accordance with NIST SP 800-53 MP-6 Media Sanitation. CDFW will request independent confirmation of data sanitation.
 - ii. CDFW and PSMFC shall follow the terms laid out in each of the appendices regarding changes in the access to non-confidential data and fisheries related materials covered by this MOU.

13.0 Dispute Resolution

Except as otherwise provided in this MOU, should a bona fide dispute arise between CDFW and PSMFC, it is the expectation of both PSMFC and CDFW that the parties shall meet and resolve the issue through discussion and negotiation. If the Parties are unable to resolve the dispute through good faith discussions, the Parties reserve the right to seek legal remedies as appropriate.

14.0 Notices

Unless improper access or a data security breach in Section 7(d) of this MOU or otherwise provided in the appendices, any notices made in connection with this MOU shall be in writing and sent certified mail to the following individuals and addresses, or to such other address as may be designated with written notice delivered pursuant to this section. Notice shall be deemed effective upon delivery in the case of personal delivery or delivery by overnight courier or, in the case of delivery by registered first class mail, five (5) days after deposit into the United States mail.

For CDFW:

California Department of Fish and Wildlife

Craig Shuman, Regional Manager

Marine Region

1933 Cliff Drive, Suite 9

Santa Barbara, CA 93109

Telephone: (805) 568-1246

E-mail: Craig.Shuman@wildlife.ca.gov

For PSMFC:

Pacific States Marine Fisheries Commission

Barry Thom, Executive Director 205 SE Spokane Street, Suite 100

Portland, OR 97202

Telephone: (503) 595-3100 E-mail: BThom@psmfc.org

15.0 Independent Capacity

The employees or agents of each party who are engaged in the performance of this MOU shall continue to be employees or agents of that party and shall not be considered for any purpose to be employees or agents of the other party.

By the signatures of their duly authorized representative below, the California Department of Fish and Wildlife, and Pacific States Marine Fisheries Commission agree to all of the provisions of this MOU.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE	PACIFIC STATES MARINE FISHERIES COMMISSION
BY:	BY: Barry L. Thom Barry Thom
TTTLE: Deputy Director, Wildlife and Fisheries Division	TITLE: Executive Director
DATE:	DATE:
BY: Stephen Adams BY: BY: Stephen Adams	
TITLE: Deputy Director, Data and Technology Di	ivision
DATE: 6/30/2022	

APPENDICES

Appendix A: Marine Landings Data System (MLDS) and E-Tix Data Transfer

Appendix B: Pacific Fisheries Information Network (PacFIN)

Appendix C: Pacific Coast Recreational Fisheries Information Network (RecFIN)



Appendix A: Marine Landings Data System (MLDS) and E-Tix Data Transfer

I. Background and Project Description

MLDS, built and maintained by the California Department of Fish and Wildlife (CDFW), contains a centralized database for all California commercial landing receipts, fish transportation receipts, marine aquaria receipts and landing fees. E-Tix, built and maintained by the Pacific States Marine Fisheries Commission (PSMFC), contains both state-mandated landings data and federally-mandated landings data. Prior to July 1, 2018, California fish businesses entered landings data into E-tix for specific fisheries as required by NOAA, while still completing and submitting state-required landings data to CDFW. Between July 1, 2018, and June 30, 2019, commercial fish businesses (on a voluntary basis) and CDFW staff entered landing receipt data for California fisheries into the PSMFC E-Tix data system. Entry of all California landing receipt data into the E-Tix data system by commercial fish businesses became mandatory on July 1, 2019. MLDS receives all the landing receipt data from the PSMFC's E-Tix data system via a daily data feed.

E-Tix contains preliminary, unedited, commercial fish landing records only. MLDS is used exclusively to manage the CDFW Data through established reports and by applying quality assurance and quality control measures. Consequently, the official records for commercial fishing landings are contained within the MLDS.

For the purposes of this appendix, the data submitted by fish businesses through E-Tix contains both CDFW Data and PSMFC Data as defined in Section 3.0 of this Memorandum of Understanding (MOU).

II. Duties and Responsibilities

In addition to the obligations described in the body of this MOU, CDFW and PSMFC have the following duties and responsibilities related to E-Tix and MLDS:

A. Data Exchange

- i. CDFW will provide CDFW Data to PSMFC as described in Table 1 of this appendix on a daily basis.
- ii. PSMFC will provide a secure process to upload the CDFW Data described in Table 1 of this appendix. The process must meet the requirements of Sections 5.0 and 7.0 of this MOU.
- iii. PSMFC will provide CDFW with a daily data feed of any new or updated CDFW Data and PSMFC Data described in Table 1 of this appendix that have been submitted into E-Tix since the previous data feed.
- iv. PSMFC will provide CDFW with access to all California electronic fish ticket data submitted to the E-Tix database.
- v. PSMFC will provide CDFW with an Agency Administrator role and access to the associated reports in the E-Tix application.

- vi. PSMFC will provide CDFW with sufficient documentation for CDFW to verify the accuracy of the CDFW Data contained in the E-Tix data system, and in the data made available to authorized individuals with access to E-Tix pursuant to section II(D) of this appendix. Documentation will include metadata for each field.
- vii. PSMFC will provide CDFW with a monthly report of unsubmitted draft electronic fish tickets.
- viii. PSMFC will provide CDFW with a monthly list of fish businesses with E-Tix accounts.

B. Notice Provisions:

- i. Notifications listed below will be sent to the CDFW MLDS Product Owner.
- ii. PSMFC will provide CDFW with immediate notice by telephone and in writing when the data system is offline due to an unanticipated outage, disaster, or system failure.
- iii. PSMFC will notify CDFW in writing within 24 hours of a system failure that results in loss of California data.
- iv. CDFW will notify PSMFC by the next business day in writing if CDFW is unable to upload the data described in Table 1 of this appendix.
- v. PSMFC will notify CDFW by the next business day in writing if PSMFC is unable to transfer the data described in Table 1 of this appendix.
- vi. PSMFC will provide CDFW with a minimum of 24-hour advance notice in writing when access to the E-Tix data system will be limited or unavailable due to system maintenance.
- vii. CDFW and PSMFC will provide the other party with a minimum of 60 days advance notice in writing of any changes to file variables, formats, structure or functions of the data system or data transfers. This window can be shortened on an as needed basis if it is agreed upon by both parties in advance.
- viii. PSMFC will carbon copy ElectronicFishTicket@wildlife.ca.gov on any blanket emails to fish businesses regarding E-Tix.

C. Security Provisions

- i. CDFW and PSMFC will maintain security of their data systems per sections 5.0, and 7.0 of this MOU.
- ii. PSMFC will maintain a list of users and their associated agency or organization who have access to the CDFW Data stored in the E-Tix system. The list will be made available to CDFW upon request and will be reviewed at least annually to verify current authorized users.
- D. Access to CDFW Data: PSMFC will comply with the following constraints as defined in Section 6.0 of the MOU when allowing access to CDFW Data through the E-Tix system:
 - PSMFC will advise each individual who is provided access to CDFW Data stored in the E-Tix system of their non-disclosure obligations as specified in Section 6.0 of this MOU and in section 8022 of the California Fish and Game Code.

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- ii. CDFW Data in E-Tix will only be accessed by or released to:
 - a. Individuals working for PSMFC as described in Section 6(c) of the MOU.
 - b. Employees of CDFW.
 - c. Sworn or nonsworn law enforcement personnel of a federal or state agency that can demonstrate a need for purposes of fisheries law enforcement.
 - d. Employees with the following agencies: PFMC, Oregon Department of Fish and Wildlife (ODFW), Washington Department of Fish and Wildlife (WDFW), the U.S. Coast Guard, NMFS' West Coast Region (WCR), NMFS' Northwest Fisheries Science Center (NWFSC) and NMFS' Southwest Fisheries Science Center (SWFSC). The employees of the listed agencies above or individuals under direct contract with PFMC, WCR, NWFSC and SWFSC will be given access only upon signature of a non-disclosure agreement with PSMFC and if they have a professional requirement for access to CDFW Data for development and implementation of a PFMC fishery management plan, preparation of National Environmental Protection Act (NEPA) documents, production of Biological Opinions, or in support of regional management or international treaty agreements will be given access.
 - e. All other individuals only with the prior written approval of CDFW.
- E. Data Integrity: When data errors or anomalies are discovered within CDFW Data in the E-Tix system, PSMFC will notify CDFW of the potential problems. CDFW will investigate and make sufficient modifications when appropriate. Those corrections will be made available through the next data exchange as described in Table 1. CDFW will notify PSMFC of any identified data errors or anomalies in the CDFW Data stored in E-Tix.
- F. Prior to making any modifications of data for California landing receipts in E-Tix, PSMFC will consult with CDFW and no change will be made without prior written approval of CDFW.
- G. Data Requests and Reporting:
 - i. Requests by CDFW or PSMFC for project-related data or reports regardless of the need for programing, manipulation or summarization of the data, will be made in writing and should be granted in a timely manner as resources allow. Requests for data files and reports not requiring programing, manipulation or summarization of the data should be fulfilled within a time frame that is agreed upon by both parties.
 - ii. The CDFW MLDS Product Owner will be notified and asked to approve when new online data summaries (beyond the current standardized online reports) that include CDFW Data that are made available to the public.

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III. Source Data Collections

CDFW and PSMFC each manage the data sources as described in Table 1.

For each shared data source, the data owner, agency database name, data manager, coverage period, frequency of data delivery, and the Federal Information Processing Standards (FIPS) Classification are listed in Table 1.

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Table 1. CDFW Data to be shared between MLDS and E-Tix.

Source Data	Data Owner	Database Name	Data Manager	Coverage Period	Data Delivery Frequency	FIPS Classification	Notes
Commercial landings reference and lookup tables	CDFW	MLDS	CDFW	1981 to present	Updated daily.	{(confidentiality, NA), (integrity, medium), (availability, medium)}	Reference or look up tables provided for the purpose of data entry validation in E-Tix; Includes species codes, port codes, block codes, condition codes, grade codes, gear codes and use codes.
Commercial fishing license and permit data	CDFW	MLDS	CDFW	1981 to present	Updated daily.	{(confidentiality, high), (integrity, moderate), (availability, moderate)}	No additional information at this time.
Commercial fishing vessel registration and permit data	CDFW	MLDS	CDFW	1981 to present	Updated daily.	{(confidentiality, moderate), (integrity, moderate), (availability, low)}	No additional information at this time.
Commercial fish business license data	CDFW	MLDS	CDFW	1981 to present	Updated daily.	{(confidentiality, moderate), (integrity, moderate), (availability, low)}	No additional information at this time.
Commercial electronic fish ticket data	PSMFC, CDFW	E-Tix	PSMFC, CDFW	7/1/2018 to present	Updated daily.	{(confidentiality, medium), (integrity, moderate), (availability, moderate)}	No additional information at this time.

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IV. Technical Points of Contact:

CDFW and PSMFC will keep the other party apprised of their agency's current point of contact for technical issues. The point of contact is responsible for notifying the appropriate staff in their agency of any technical issues.

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Appendix B: Pacific Fisheries Information Network (PacFIN)

I. Background and Project Description

The PacFIN program was established in 1981 as a collaboration between the west coast states of California, Oregon, and Washington, the National Marine Fisheries Service (NMFS), the Pacific Fishery Management Council (PFMC), and the Pacific States Marine Fisheries Commission (PSMFC). The program is funded by NMFS and those PacFIN funds are distributed through PSMFC to the participating states to support their data collection and processing efforts, as well as to support PSMFC's work relative to PacFIN.

The PSMFC performs a critical role in data management of fisheries related information and functions as an intermediary network to support regional management and decision making. PSMFC is responsible for the administration of PacFIN which includes consolidating and integrating disparate data sets collected by the states, NMFS, and PSMFC into a single comprehensive management system. Moreover, PSMFC staff process these diverse data into functional information, providing value-added analysis and interpretation, then making the data available to state and federal fishery managers, analysts, law enforcement, universities, scientists, and the public, in both confidential and non-confidential formats.

II. Duties and Responsibilities

In addition to the obligations described in the body of this Memorandum of Understanding (MOU), CDFW, and PSMFC have the following duties and responsibilities.

A. Data Exchange

- CDFW will provide PSMFC any new or updated CDFW Data, as described in Table 1 of this appendix.
- ii. PSMFC will provide a secure process via PacFIN for CDFW to upload the CDFW Data described in Table 1 of this appendix to the PacFIN database. The process must meet the requirements of sections 5.0 and 7.0 of this MOU. These data are uploaded from MLDS to PacFIN by PSMFC's groundfish data manager (CDFW contracted employee). All data uploaded to PacFIN must be immediately removed from the transfer site after being downloaded by PSMFC.
- iii. CDFW will provide PSMFC with sufficient documentation for the CDFW Data provided to PacFIN (described in Table 1 of this appendix), including but not limited to database table and column descriptions, conversions, translations, lookup tables, database diagrams, and other associated metadata. CDFW will also provide information on business rules, data notes, and caveats for the data provided including a description of elements filtered from the CDFW Data before uploading to PacFIN. CDFW will respond in a timely manner as resources allow to clarify technical or data issues.

iv. PSMFC will provide CDFW sufficient documentation for CDFW to verify the accuracy of the CDFW Data contained in the PacFIN database or stored on PacFIN servers, in the data summaries made available to the public, and in the data made available to authorized individuals with access to PacFIN pursuant to section II(D) in this appendix. Documentation will include: definitions for each field, detailed descriptions of all conversion factors for weight, estimation procedures for price and species composition, and any other conversions of CDFW Data in PacFIN.

B. Notice Provisions

- CDFW will notify the PacFIN Program Manager by the next business day in writing if CDFW is unable to upload the data described in Table 1 of this appendix.
- ii. PSMFC will notify the CDFW PacFIN representative by the next business day in writing if PSMFC is unable to transfer the data described in Table 1 of this appendix.
- iii. CDFW and PSMFC will provide the other party with a minimum of 60 days advance notice in writing of any changes to file variables, formats, structure or functions of the data system or upload process. This window can be shortened on an as needed basis if it is mutually agreed upon by both parties.

C. Security Provisions

- i. CDFW and PSMFC will maintain security of their data systems per Sections 5.0 and 7.0 of this MOU.
- ii. PSMFC will maintain a list of users and their associated agency or organization who have access to the CDFW Data stored in the PacFIN system. This list will be made available to CDFW upon request and will be reviewed at least annually to verify current authorized users.
- D. Access to CDFW Data: PSMFC will comply with the following constraints as defined in Section 6.0 of the MOU when allowing access to CDFW Data through PacFIN:
 - PSMFC will advise each individual who is provided access to CDFW Data stored in the PacFIN system of their non-disclosure obligations as specified in Section 6.0 of this MOU and in section 8022 of the California Fish and Game Code.
 - a. PSMFC will require user passwords to be reset annually.
 - ii. CDFW Data in PacFIN will only be accessed by or released to:
 - a. Individuals working for PSMFC as described in Section 6(c) of the MOU.
 - b. Employees of CDFW.
 - c. Sworn or nonsworn law enforcement personnel of a federal or state agency that can demonstrate a need for purposes of fisheries law enforcement.
 - d. Employees with the following agencies are: PFMC, Oregon Department of Fish and Wildlife (ODFW), Washington Department of Fish and Wildlife (WDFW), the U.S. Coast Guard, NMFS' West Coast Region (WCR),

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NMFS' Northwest Fisheries Science Center (NWFSC) and NMFS' Southwest Fisheries Science Center (SWFSC). The employees of the listed agencies above or individuals under direct contract with PFMC, WCR, NWFSC and SWFSC will be given access only upon signature of a non-disclosure agreement with PSMFC and if they have a professional requirement for access to CDFW Data for development and implementation of a PFMC fishery management plan, preparation of National Environmental Protection Act (NEPA) documents, production of Biological Opinions, or in support of regional management or international treaty agreements will be given access.

- e. All other individuals only with the prior written approval of CDFW.
- E. Data Integrity: When data errors or anomalies are discovered within CDFW Data, PacFIN will notify CDFW of the potential problems. CDFW will investigate and make sufficient modifications when appropriate. Those corrections will be made available through the next data exchange as described in Table 1. CDFW will notify PacFIN of any identified data errors or anomalies in the CDFW Data.

F. Data Requests and Reporting:

- i. Requests by CDFW or PSMFC for PacFIN project-related data or reports, regardless of the need for programming, manipulation or summarization of the data, will be made to the PacFIN Program Manager in writing and should be granted in a timely manner as resources allow. Requests for data files and reports not requiring programing, manipulation or summarization of the data should be fulfilled within a time frame that is agreed upon by both parties.
- ii. The CDFW PacFIN representative will be notified and asked to approve when new online data summaries (beyond the current standardized online reports) that include CDFW Data that are made available to the public.

III. Source Data Collections

CDFW and PSMFC collaboratively manage the data sources as described in Table 1. Additionally, other CDFW data are stored in the SWFSC database and the California Cooperative Groundfish Survey CALCOM database that are hosted on PacFIN servers.

For each shared data source, the data owner, agency database name, data manager, coverage period, frequency of data delivery, and the Federal Information Processing Standards (FIPS) Classification are listed in Table 1.

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Table 1. CDFW Data to be shared with PacFIN

Source Data	Data Owner	Database Name	Data Manager	Coverage Period	Data Delivery Frequency	FIPS Classification	Notes
Commercial landings reference and lookup tables	CDFW	MLDS	CDFW	1981 to present	Updated as needed.	{(confidentiality, NA), (integrity, low), (availability, low)}	Reference or look up tables provided for the purpose of data entry validation in E-Tix; Includes species codes, port codes, block codes, condition codes, grade codes, gear codes and use codes.
Commercial fishing license and permit data	CDFW	MLDS	CDFW	1981 to present	Updated monthly.	{(confidentiality, moderate), (integrity, moderate), (availability, low)}	No additional information at this time.
Commercial fishing vessel registration and permit data	CDFW	MLDS	CDFW	1981 to present	Updated every two weeks.	{(confidentiality, moderate), (integrity, moderate), (availability, low)}	No additional information at this time.
Commercial fish business license data	CDFW	MLDS	CDFW	1981 to present	Updated every two weeks.	{(confidentiality, moderate), (integrity, moderate), (availability, low)}	No additional information at this time.
Commercial landing receipt data	CDFW	MLDS	CDFW	1981 to 6/30/2019	Updated every two weeks.	{(confidentiality, moderate), (integrity, moderate), (availability, low)}	No additional information at this time.
Commercial electronic fish ticket data	PSMFC, CDFW	E-Tix	PSMFC, CDFW	7/1/2018 to present	Daily feed from E-Tix to PacFIN. Updated every two weeks by CDFW.	{(confidentiality, moderate), (integrity, moderate), (availability, low)}	No additional information at this time.

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Source Data	Data Owner	Database Name	Data Manager	Coverage Period	Data Delivery Frequency	FIPS Classification	Notes
Commercial logbook reference and lookup tables	CDFW	MLS	CDFW	1981 to present	Updated as needed	{(confidentiality, NA), (integrity, low), (availability, low)}	No additional information at this time.
Groundfish trawl logbook (DFG 176) data	CDFW	MLS	CDFW	1981 to June 30, 2019	Historical data updated as needed	{(confidentiality, moderate), (integrity, moderate), (availability, moderate)}	No additional information at this time.
Halibut trawl logbook (DFG 176) data	CDFW	MLS	CDFW	1981 to present	Updated three times per year.	{(confidentiality, moderate), (integrity, moderate), (availability, moderate)}	No additional information at this time.
Shrimp/prawn trawl logbook (DFG 120) data containing groundfish bycatch	CDFW	MLS	CDFW	1981 to present	Updated three times per year.	{(confidentiality, moderate), (integrity, moderate), (availability, moderate)}	No additional information at this time.
Groundfish trawl logbooks	WCRO	E-logbook	PSMFC, CDFW	July 1, 2019 to present	Updated daily.	{(confidentiality, moderate), (integrity, moderate), (availability, moderate)}	No additional information at this time.
Biological Data System (BDS) from the California Cooperative Survey	PSMFC	CALCOM	PSMFC	1978 to present	Updated weekly.	{(confidentiality, moderate), (integrity, moderate), (availability, low)}	SWFSC extracts CDFW landings data from PacFIN and applies the species proportions generated by the expansion program which is performed within CALCOM and hosted on PSMFC servers.

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Source Data	Data Owner	Database Name	Data Manager	Coverage Period	Data Delivery Frequency	FIPS Classification	Notes
California Catch Reconstruction data	CDFW	CALCOM	SWFSC	varies by dataset	Updated as needed.	{(confidentiality, moderate), (integrity, moderate), (availability, low)}	This dataset contains older CDFW landings and logbook data that were recovered by SWFSC as part of the catch reconstruction efforts.
Gillnet logbook data (DFG 174)	CDFW	HMS_FOU NDATION	SWFSC	1981 to June 30, 2019	Updated as needed.	{(confidentiality, moderate), (integrity, moderate), (availability, moderate)}	Stored on PSMFC servers.
Harpoon logbook data (DFG 107)	CDFW	HMS_FOU NDATION	SWFSC	1981 to June 30, 2019	Updated as needed.	{(confidentiality, moderate), (integrity, moderate), (availability, moderate)}	Stored on PSMFC servers.

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IV. Technical Points of Contact:

CDFW and PSMFC will keep the other party apprised of their agency's current point of contact for technical issues. The point of contact is responsible for notifying the appropriate staff in their agency of any technical issues.

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Appendix C: Pacific Coast Recreational Fisheries Information Network (RecFIN)

I. <u>Background and Project Description</u>

The RecFIN program was established in 1992 as a collaboration between the west coast states of California, Oregon, and Washington, the National Marine Fisheries Service (NMFS), the Pacific Fishery Management Council (PFMC), and the Pacific States Marine Fisheries Commission (PSMFC). The program is funded by NMFS, and RecFIN funds are distributed through PSMFC to the participating states to support their data collection and processing efforts, as well as to support RecFIN's central office at PSMFC.

The PSMFC is responsible for the administration of RecFIN and performs a critical role in data management of fisheries related information and functions as an intermediary network to support regional management and decision making. California, Oregon, and Washington sampling programs collect recreational fishing data using different survey methods and each state stores their data in different database formats. RecFIN is responsible for consolidating and integrating disparate data sets collected by the states into a single comprehensive management system. Moreover, RecFIN processes these diverse data into functional information, provides value-added analysis and interpretation, and makes the data available to state and federal fishery managers, analysts, universities, scientists, and the public.

The RecFIN database has been designated by NMFS as the central repository for west coast marine recreational fishing catch, effort, and demographic data collected by the Marine Recreational Fisheries Statistics Survey (MRFSS) and by the state surveys that replaced MRFSS. These data include California state survey data that are collected with support from partial funding by the NMFS Pacific RecFIN grant. Per the May 12, 2010 agreement between the California Department of Fish and Wildlife (CDFW) and NMFS (Memorandum of Agreement for Designation of the State of California as an Exempted State Based on Submission of Recreational Survey Data Pursuant to 50 CFR 600.1415 and .1417), CDFW has agreed to provide NMFS with the CDFW Data (as defined in Section 3.0 of this MOU) it collects through its state survey to maintain its exemption from the National Saltwater Angler Registry Program.

II. <u>Duties and Responsibilities</u>

In addition to the obligations described in the body of this MOU, CDFW and PSMFC have the following duties and responsibilities related to CRFS:

A. Data Exchange

 CDFW will provide PSMFC with CDFW Data and estimates to RecFIN, as described in Table 1 of this appendix on a routine basis from surveys conducted under the CDFW contract with PSMFC using funds from NMFS Pacific RecFIN Grant.

- ii. PSMFC will provide a secure process for CDFW to upload the CDFW Data and estimates described in Table 1 of this appendix to the RecFIN database. The process must meet the requirements of sections 5.0 and 7.0 of this MOU. All data uploaded to RecFIN must be immediately removed from the transfer site after being downloaded by PSMFC.
- iii. CDFW will provide PSMFC with sufficient documentation for the data provided to RecFIN (described in Table 1 of this appendix), including but not limited to database table and column descriptions, conversions, translations, lookup tables, and other associated metadata. CDFW will also provide information on business rules, data notes, and caveats for the data provided including a description of elements filtered from the CDFW Data before uploading to RecFIN. CDFW will respond in a timely manner as resources allow to clarify technical or data issues.
- iv. PSMFC will provide CDFW with access to all recreational CDFW Data in the RecFIN database and on the PSMFC server.
- v. PSMFC will provide CDFW with sufficient documentation to verify the accuracy of the CDFW Data and estimates contained in the RecFIN database, in the summaries made available to the public, and the data made available to authorized individuals with access to RecFIN pursuant to section II(D) in this appendix. Documentation will include definitions for each field, detailed descriptions of all estimation procedures for catch rate, effort, average weight, and groundfish depth-dependent mortality, and detailed descriptions of any pooling rules or adjustments.

B. Notice Provisions

- CDFW will notify the RecFIN Senior Program Manager by the next business day in writing if CDFW is unable to upload the data described in Table 1 of this appendix.
- ii. PSMFC will notify the CDFW RecFIN representative by the next business day in writing if RecFIN is unable to transfer the data described in Table 1 of this appendix.
- iii. CDFW and PSMFC will provide the other party with a minimum of 60 days advance notice in writing of any changes to file variables, formats, structure or functions of the data system or upload process. This window can be shortened on an as needed basis if it is mutually agreed upon by both parties.

C. Security Provisions

- i. CDFW and PSMFC will maintain security of their data systems per Sections 5.0 and 7.0 of this MOU.
- ii. PSMFC will maintain a list of users and their associated agency or organization who have access to the CDFW Data stored in the RecFIN system. The list will be made available to CDFW upon request and will be reviewed at least annually to verify current authorized users.

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- D. Access to CDFW Data: PSMFC will comply with the following constraints as defined in Section 6.0 of the MOU when allowing access to CDFW Data through RecFIN.
 - i. PSMFC will advise each individual who is provided access to CDFW Data stored in the RecFIN database or warehouse of their non-disclosure obligations as specified in section 6.0 of this MOU and in sections 1050.6 and 8022 of the California Fish and Game Code.
 - a. PSMFC will require passwords to be reset annually.
 - ii. CDFW Data in RecFIN will only be accessed by or released to:
 - a. Individuals working for PSMFC as described in Section 6(c) of the MOU.
 - b. Employees of CDFW.
 - c. Sworn or nonsworn law enforcement personnel of a federal or state agency that can demonstrate a need for purposes of fisheries law enforcement.
 - d. Employees with the following agencies: PFMC, Oregon Department of Fish and Wildlife (ODFW), Washington Department of Fish and Wildlife (WDFW), the U.S. Coast Guard, NMFS' West Coast Region (WCR), NMFS' Northwest Fisheries Science Center (NWFSC) and NMFS' Southwest Fisheries Science Center (SWFSC). The employees of the listed agencies above or individuals under direct contract with PFMC, WCR, NWFSC and SWFSC will be given access only upon signature of a non-disclosure agreement with PSMFC and if they have a professional requirement for access to the CDFW Data for development and implementation of a PFMC fishery management plan, preparation of National Environmental Protection Act (NEPA) documents, production of Biological Opinions, or in support of regional management or international treaty agreements will be given access.
 - e. All other individuals only with the prior written approval of CDFW.
 - iii. PSMFC will remove all personally identifiable information from the following historical data that it maintains on its system: CRFS angler license telephone survey data and California party/charter survey data. This shall be done in accordance with NIST SP 800-53 MP-6 Media Sanitation as outlined in section 12(d)(i).
- E. CDFW Data to be shared with RecFIN: CDFW will provide RecFIN with the following CDFW Data described in Table 1.
- F. Historical data on California fisheries maintained on the PSMFC data system is described in Table 2. Historical data are defined as data collected prior to January 1, 2015 and the estimates produced using those data.
- G. Data Integrity: When data errors or anomalies are discovered within CDFW source data, RecFIN will notify CDFW of the potential problems. CDFW will investigate and make sufficient modifications when appropriate. Those corrections will be made available through the next data exchange as described

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in Table 1. CDFW will notify RecFIN of data errors or anomalies in the CDFW Data.

H. Data Requests and Reporting

- i. Requests by CDFW or PSMFC for RecFIN project-related data or reports, regardless of the need for programming, manipulation, or summarization of the data, will be made to the RecFIN Program Manager in writing and should be granted in a timely manner as resources allow. Requests for data files and reports not requiring programming, manipulation, or summarization of the data should be fulfilled within a time frame that is agreed upon by both parties.
- ii. The CDFW RecFIN representative will be notified and asked to approve when new online data summaries (beyond the current standardized online reports) that include CDFW Data that are made available to the public.

III. Source Data Collections

CDFW and PSMFC collaboratively manage the data sources as described in Table 1.

For each shared data source, the data owner, agency database name, data manager, coverage period, frequency of data delivery, and the Federal Information Processing Standards (FIPS) Classification are listed in Table 1.

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Table 1. CDFW Data to be shared with RecFIN

Source Data	Data Owner	Database Name	Data Manager	Coverage Period	Data Delivery Frequency	FIPS Classification	Notes
CRFS Survey Data for All Modes (i.e., angler interview and catch rate survey)	CDFW	CRFS	CDFW	2012 to present	Monthly	{(confidentiality, low), (integrity, low), (availability, low)}	CDFW will remove the following confidential information from the catch rate survey files prior to delivery to PSMFC: commercial passenger fishing vessel (CPFV) boat name, boat number (CDFW boat registration number) and captain's name. Biological sample data including length, weight, and sex data is included.
CRFS Survey Location Data for Private and Rental Boats	CDFW	CRFS	CDFW	2012 to present	Monthly	{(confidentiality, low), (integrity, low), (availability, low)}	Specific catch or effort locations in terms of depth, latitude and longitude or in one-nautical mile blocks.
CRFS Survey Location Data for CPFVs	CDFW	CRFS	CDFW	2012 to present	Monthly	moderate), (integrity, low), (availability, low)}	Specific location and depth where most of the fish were caught or most of the effort occurred on a trip. Location in terms of latitude and longitude or in one-nautical mile blocks. Confidential data include CPFV boat name, boat number (CDFW boat registration number), captain's name, CPFV catch or effort location, county and site number of the CPFV landing.
CRFS Estimates	CDFW	CRFS	CDFW	2012 to present	Monthly	{(confidentiality, low), (integrity, low), (availability, low)}	CRFS monthly estimates of catch and effort.
Salmon Estimates	CDFW	Ocean Salmon Project	CDFW	1976 to present	Annually	{(confidentiality, low), (integrity, low), (availability, low)}	Annual salmon estimates of catch and effort. Estimates are produced using CRFS private rental boat sampling data and CDFW Ocean Salmon Project sampled catch data from CPFV trips targeting salmon. Estimations augmented by CDFW Ocean Salmon Project. Salmon estimates are extracted by RecFIN from PFMC salmon SAFE tables.
CRFS CPFV Observer Data (stop-by-stop location and catch)	CDFW	CRFS	CDFW	2012 to present	Monthly	moderate), (integrity, low), (availability, low)}	Information on the location, depth and catch at each stop on a CPFV trip. Confidential data include CPFV boat name, boat number (CDFW boat registration number), captain's name, county and site number of the CPFV landing, name of the CPFV landing location of each stop.
Reference Files	CDFW	CRFS	CDFW	2012 to present	On Demand	{(confidentiality, NA), (integrity, moderate), (availability, moderate)}	Codes for taxonomic categories, counties, sites, states, countries, and other variables.

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Table 2. Historical CDFW data on California fisheries maintained on the PSMFC data system. Historical CDFW data are defined as data collected prior to January 1, 2015 and the estimates produced using those data.

Source Data	Data Owner	Database Name	Data Manager	Coverage Period	Data Delivery Frequency	FIPS Classification	Notes
CRFS Survey Data for Private and Rental Boats and Shore Modes (i.e., angler interview and catch rate survey)	CDFW	RecFIN	PSMFC	2004-2014	N/A	{(confidentiality, low), (integrity, moderate), (availability, moderate)}	CRFS Survey Data for Private and Rental Boats and Shore Modes includes data on catch, effort, angler demographics and catch location in terms of depth, water area and CRFS geographic districts.
CRFS Survey Data for CPFVs (i.e., angler interview and catch rate survey)	CDFW	RecFIN	PSMFC	2004-2014	N/A	{(confidentiality, moderate), (integrity, moderate), (availability, moderate)}	CRFS Survey Data for CPFVs includes data on catch, effort, angler demographics and catch location in terms of depth, water area and CRFS geographic districts. Confidential fields include CPFV boat name, boat number (CDFW boat registration number), captain's name, county and site number of the CPFV landing.
CRFS Survey Location Data for Private and Rental Boats	CDFW	RecFIN	PSMFC	2004-2013	N/A	{(confidentiality, low), (integrity, moderate), (availability, moderate)}	Specific catch or effort locations in terms of depth, latitude and longitude or in one-nautical mile blocks.
CRFS Survey Location Data for CPFVs	CDFW	RecFIN	PSMFC	2004-2011	N/A	{(confidentiality, moderate), (integrity, moderate), (availability, moderate)}	Specific location where most of the fish were caught or most of the effort occurred on a trip. Location in terms of depth, latitude and longitude or in one-nautical mile blocks. Confidential fields include CPFV boat name, boat number (CDFW boat registration number), captain's name, CPFV catch or effort location, county and site number of the CPFV landing
CRFS Angler License Telephone Survey Data	CDFW	RecFIN	PSMFC	2004-2014	N/A	{(confidentiality, moderate), (integrity, low), (availability, low)}	Historic information from a monthly survey of randomly selected sportfishing license holders to learn about their saltwater sportfishing activities in the prior month. Historical data are defined as data collected prior to January 1, 2015. Confidential data and personally identifiable information include name and telephone number.
CRFS Party/Charter Telephone Survey Data	CDFW	RecFIN	PSMFC	2004-2010	N/A	{(confidentiality, moderate), (integrity, low), (availability, low)}	Historic information from a weekly survey of CPFV operators to learn about the trips their CPFV took in the prior week. Historical data are defined as data collected prior to January 1, 2011. Confidential data include CPFV boat name, boat number (CDFW boat registration number), owner or operator's name, county and site number of the CPFV landing, name of the CPFV landing, owner or operator's telephone number, fax number email address and mailing address. See II(D), below for requirement to remove personally identifiable information from these files.

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Source Data	Data Owner	Database Name	Data Manager	Coverage Period	Data Delivery Frequency	FIPS Classification	Notes
CRFS Estimates	CDFW	RecFIN	PSMFC	2004-2014	N/A	{(confidentiality, low), (integrity, moderate), (availability, moderate)}	Monthly estimates of catch and effort.
CRFS CPFV Observer Data (stop-by-stop location and catch).	CDFW	RecFIN	PSMFC	2002-2014	N/A	{(confidentiality, moderate), (integrity, moderate), (availability, moderate)}	Information on the depth, location and catch at each stop (i.e., each location where anglers were allowed to drop their fishing lines into the water) on a CPFV trip. Confidential data include CPFV boat name, boat number (CDFW boat registration number), captain's name, county and site number of the CPFV landing, name of the CPFV landing, location of each stop.
Reference Files	CDFW	RecFIN	PSMFC	2004-2014	N/A	{(confidentiality, NA), (integrity, moderate), (availability, moderate)}	Codes for taxonomic categories, counties, sites, states, countries, and other variables.

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IV. Technical Points of Contact

CDFW and RecFIN will keep the other party apprised of their agency's current point of contact for technical issues. The point of contact is responsible for notifying the appropriate staff in their agency of any technical issues.

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