Coastal Cutthroat Trout Conservation Initiative

2010 – 2011 Progress Report

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Photo: Marci Koski, CRFPO

Executive Summary

The Columbia River Fisheries Program Office (CRFPO) has been involved in the research and conservation of coastal cutthroat trout (CCT) for several years, particularly through the development of a multi-agency CCT Conservation Initiative ("Initiative"). The goal of the Initiative is to develop and implement a framework by which federal, state, state and other entities can address the conservation needs of CCT. The objectives of the Initiative are to 1) establish and maintain a range-wide CCT occurrence database; 2) conduct a range-wide status assessment for CCT; and 3) develop and implement a range-wide CCT Conservation Plan ("Plan"). In 2010 and 2011, the role of the CRFPO in CCT conservation planning has been to implement and lead the development of this collaborative multi-agency Plan. The goal of the Plan is to improve the status and viability of CCT range-wide, and establish a framework for the restoration, adaptation, and continued persistence of CCT populations throughout their historic and future ranges. The objectives of the Plan are to 1) establish partnerships between state and federal agencies, tribes, non-profit organizations, and other groups interested in CCT conservation; 2) increase knowledge on CCT distribution, biology, threats, and extinction risk; and 3) identify research, monitoring, and conservation needs. The Plan will provide the background, rationale, and direction for CCT conservation. The Plan will document knowledge of CCT habitat requirements and threats, as well as identify and implement a strategy for population restoration.

During the 2010 and 2011 fiscal years, the USFWS' CCT Conservation Team was established, held monthly conference calls, and produced several products in preparation for moving forward with collecting data and writing the Plan. The team developed Plan goals and objectives, a general planning strategy that includes a NatureServe risk assessment, identified expected outcomes, and drafted a Plan outline. In addition, CRFPO publicized the Service's intention to develop the Plan by participating on the CCT Interagency Committee and by giving talks about the Initiative and Plan within the Service and to the larger fisheries community. We have also obtained commitments from numerous individuals representing various agencies and organizations for participation on the Steering Committee to help guide Plan development.

The CCT Conservation Plan will be a living, dynamic document that identifies threats and needs of CCT, as well as current and required conservation actions. It will be based on local knowledge and utilize NatureServe to assess relative risk for CCT across its range. Additionally, the Plan will provide a forum for coordinating on-the-ground conservation activities to maximize efficient use of limited resources. However, this effort is highly dependent upon both internal and external collaborative partnerships and support (personnel and funding); at this point, gaining this support is the Plan's greatest obstacle to progress.

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Introduction

Coastal cutthroat trout (*Oncorhynchus clarki clarki*, "CCT") are distributed along the Pacific coast from Prince William Sound, Alaska, to the Eel River, California (Figure 1). They exhibit complex life history forms and migration patterns, ranging from non-migratory, freshwater-migratory, and saltwater-migratory. As a result, CCT utilize many habitat types including tributary streams, small and large rivers, sloughs, ponds, lakes, estuaries, and near-shore marine areas. Subsequently, the use of these widely distributed and varied habitats exposes many CCT populations to a multitude of threats such as habitat degradation (freshwater, estuarine and marine), over-harvest, and passage impediments (Johnson et al. 1999).

Figure 1. Range-wide distribution of coastal cutthroat trout.

In 1999, the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (Service) jointly proposed to protect the Southwest Washington / Columbia River Distinct Evolutionary Significant Unit (ESU) (as identified by Johnson et al. 1999, Figure 2) of CCT under the

Endangered Species Act (ESA) (Table 1). However, after obtaining more information about CCT, in 2002 the Service determined that listing the ESU (now considered a Distinct Population Segment, DPS) as threatened was not warranted. The withdrawal of the listing proposal was reconsidered in 2009 and 2010, but ultimately remained unchanged (Table 1). While CCT are not currently listed as endangered or threatened under the ESA, in the 2002 withdrawal of the proposed rule to list the Southwestern Washington / Columbia River DPS, the Service expressed concern that some populations are likely below historic levels and continue to decline (U.S. Fish and Wildlife Service 2002; Finn et al. 2008). In the withdrawal, the Service agreed to "*continue to provide technical assistance to Federal, State, and other entities and encourage them to address the conservation needs of the coastal cutthroat trout*". The Service also committed to "*work with these agencies and entities to collect additional biological information, monitor the status of coastal cutthroat trout, and monitor the progress of conservation efforts for the DPS*".

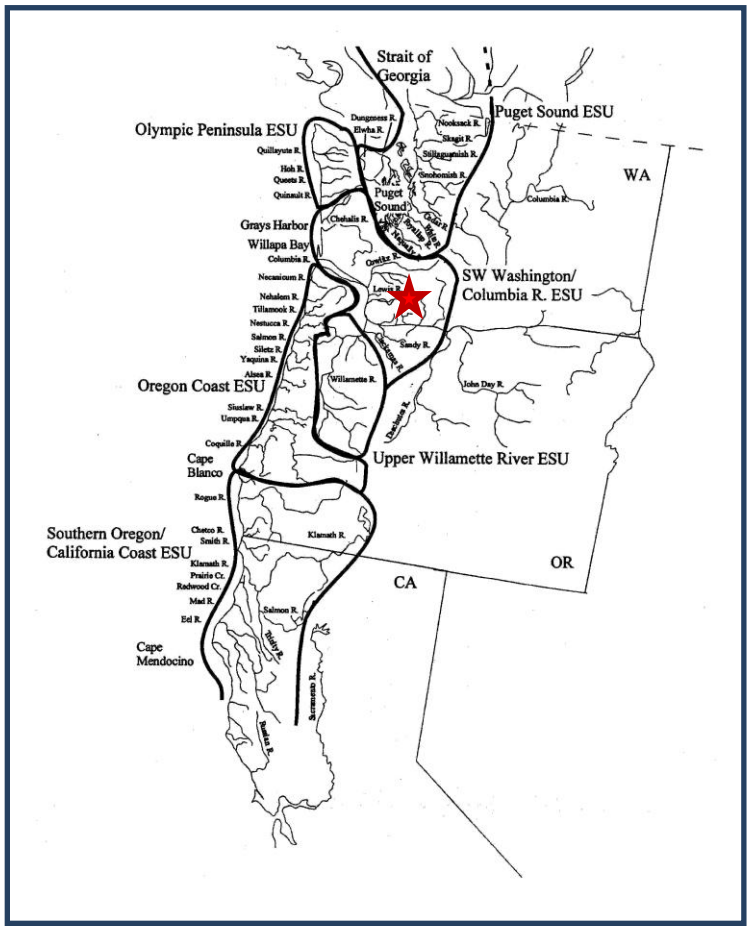

Figure 2. CCT Evolutionary Significant Units proposed by NOAA in 1999 (The SW Washington / Columbia River DPS is marked with a red star).

Table 1. Regulatory history of coastal cutthroat trout.

Year	Regulatory Event
1999	NMFS and the Service jointly propose threatened status for SW Washington / Columbia River CCT ESU
2000	Jurisdiction of CCT transferred from NMFS to the Service (ESU changed to DPS)
2002	The Service withdraws the listing proposal for the DPS, based on changed forest management regulations, new information indicating more populations than expected in a large portion of the range, and an improved understanding of anadromous-form production from non-migratory individuals
2005	The Service (OFWO) and ODFW sign a MOU committing to developing a conservation plan for CCT
2009	The Service reconsiders the withdrawal of the listing proposal, specifically with regard to whether marine and estuarine areas are a Significant Portion of the Range (SPoR) of the DPS
2010	The Service determined that listing the DPS was not warranted as a result of a five factor analysis of threats to CCT in marine and estuarine environments, as well as ambiguous guidance on the SPoR issue

In lieu of listing CCT and in an attempt to obviate a need for listing CCT in the future, the Service started working with partners to fulfill commitments made in 2002. On January 18, 2005, a Memorandum of Understanding (MOU) was signed between the Service's Oregon Fish and Wildlife Office (OFWO) and the Oregon Department of Fish and Wildlife (ODFW) for the purpose of "*cooperatively developing and implementing a conservation initiative for coastal cutthroat trout in Oregon*" (U.S. Fish and Wildlife Service and Oregon Department of Fish and Wildlife 2005). Three products were expected to be developed under the MOU, including 1) a cooperative CCT Research, Monitoring, and Evaluation (RME) program; 2) a CCT conservation plan; and 3) a conservation agreement between the Service and ODFW to identify the RME and conservation actions necessary to conserve CCT. While ODFW was the first to commit to these CCT conservation actions, the original intent of the Service was for other states to join the partnership so that conservation actions would occur range-wide. Also in 2005, the Service assisted in planning, funding, and hosting a Coastal Cutthroat Trout Symposium, which brought research and management personnel together, and identified research and management actions and key conservation needs for CCT.

Following the 2005 CCT Symposium, the CCT Interagency Committee (Committee) was formed in November 2006. The Committee is comprised of participants from the states of Alaska, California, Oregon and Washington; British Columbia, the Service, the U.S. Geological Survey, the U.S. Forest Service and the Northwest Indian Fisheries Commission, and is generally facilitated by the Pacific States Marine Fisheries Commission (PSMFC) and their consultants (primarily Kitty Griswold). The goal of the Committee is to develop a consistent framework to help guide and prioritize conservation, management, research, and restoration of CCT throughout their native range through a collaborative multi-agency CCT Conservation Initiative ("Initiative"). The goal of the Initiative is to develop and implement a framework by which federal, state, state and other entities can address the conservation needs of CCT. The objectives of the Initiative are to 1) establish and maintain a range-wide CCT occurrence database; 2) conduct a range-wide status assessment for CCT; and 3) develop and implement a range-wide CCT conservation plan (Figure 3).

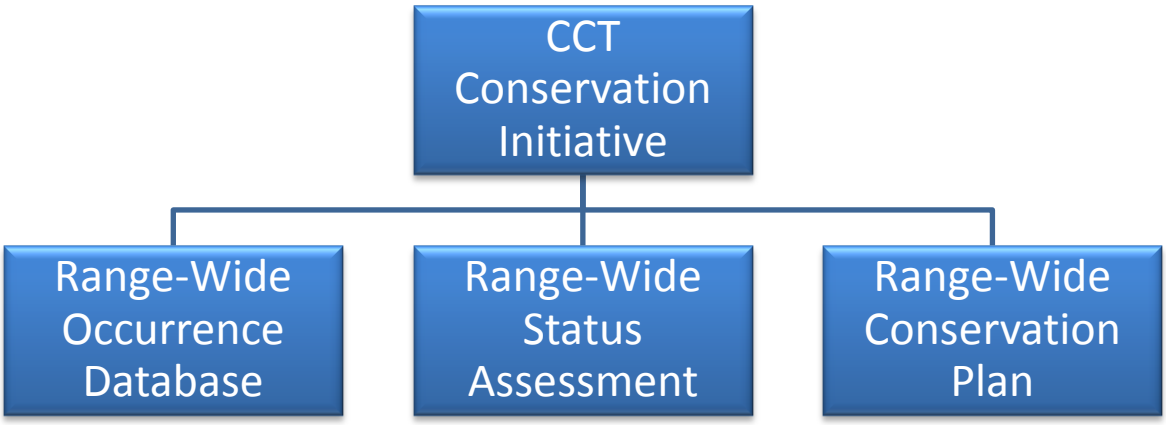

Figure 3. Relationship between the CCT Conservation Initiative and products, including the conservation plan.

The Columbia River Fisheries Program Office (CRFPO) has participated in CCT conservation planning activities since fiscal year (FY) 2003, and has represented the Service on the Committee since 2006 along with OFWO (Doug Young and Bianca Streif). Originally, CRFPO's participation was primarily to provide technical support. As the ability for OFWO to actively participate in CCT conservation planning waned, CRFPO assumed the lead role for the Service. Additionally, due to resource constraints of other agencies participating on the

committee, the Service (i.e., CRFPO in particular) volunteered to facilitate the development of the range-wide collaborative multi-agency conservation plan (Plan), one of the primary products of the Initiative (Figure 3). Developing this Plan would help fulfill the Service's commitments from the 2002 listing withdrawal and 2005 MOU regarding the SW Washington and Columbia River DPS. The goal of the Plan is to improve the status and viability of CCT range-wide, and establish a framework for the restoration, adaptation, and continued persistence of CCT populations throughout their historic and future ranges. The objectives (summarized; see Products section for all objectives) of the Plan are to 1) establish partnerships between state and federal agencies, tribes, non-profit organizations, and other groups interested in CCT conservation; 2) increase knowledge on CCT distribution, biology, threats, and extinction risk; and 3) identify research, monitoring, and conservation needs. The Plan will provide the background, rationale, and direction for CCT conservation. The Plan will document knowledge of CCT habitat requirements and threats, as well as identify and implement a strategy for population restoration.

We anticipate that the work of the Committee (through the development of the range-wide occurrence database and gathering of information concerning the range-wide status of CCT) will also contribute to the development of the Initiative's Plan by providing information about CCT life history, occurrence data, and contact with potential Plan partners. However, there is still a need for identifying primary threats, research and monitoring needs, and existing and required conservation actions for CCT populations across its range. Each of these items will be identified through development of the Plan, with CRFPO facilitating its progress. The CRFPO has proposed to serve as the lead for organizing meetings, guiding the planning process and developing Plan products. Additionally, conservation actions need to be coordinated across the range and participating organizations so that maximum conservation benefit is efficiently achieved with limited resources. By accomplishing these objectives under the Conservation Initiative umbrella held by several organizations and agencies across the range of CCT, these activities fulfill the mission the Service (and CRFPO) through determination of the status of CCT; development, implementation and evaluation of conservation measures for the species; and, ultimately, preventing the future listing of coastal cutthroat trout.

Approach

Since the beginning of FY 2010, the CRFPO has assumed the lead role in directing the effort to initiate development of the CCT Conservation Plan. In FY 2010 and 2011, we focused our activities in four general areas:

1. **Establishment of the Service's CCT Conservation Team**
    - We first determined which Service offices should be involved in the preparation of the Plan based on previous involvement and office location, and then contacted staff about being included on the CCT Conservation Team ("Conservation Team") and participating in Plan development
    - We formally requested staff assistance from Service Regions 7 (Alaska) and 8 (Pacific Southwest) so that CCT in those areas would also be included in the Plan
    - We organized monthly conference calls with all Service Conservation Team members to discuss Plan development, products, and coordinate tasks; notes were taken and distributed after each call
    - We developed a Sharepoint site that includes a calendar, literature archive, and document library so that Plan products (described below) could be shared and edited within the team

2. **Drafting Plan components**
    - The Conservation Team's first task was to decide what the Plan's purpose was going to be; goals and objectives of the Plan were drafted
    - Next, the Plan outline was drafted, using the Pacific Lamprey Assessment and Template for Conservation Measures ("Lamprey Plan") (Luzier et al. 2011) as a model
    - The Plan outline included a risk assessment for CCT populations across the range; we evaluated various methods for assessing risk and determined the most appropriate approach
    - We discussed how data for the Plan would be gathered, including getting information for the risk assessment and identifying threats and conservation needs range-wide for CCT

3. **Publicizing our intentions for the CCT Conservation Plan**
    - CRFPO continued to participate in Interagency Committee meetings and conference calls, informing the Committee of our plans to move forward with development of the Conservation Plan and providing input on Committee activities
    - To ensure that people in Fisheries, Ecological Services, and Refuges were aware of the Plan , we discussed our plans internally with Service groups, such as the Regional Office's, Aquatic Conservation Team
    - We presented the Conservation Initiative and Plan to the larger fisheries community at a professional meeting

4. **Attaining participation from partners**
    - The Conservation Team assembled a list of potential partner agencies and organizations to contact regarding representation on the Initiative Steering Committee. An invitation and overview presentation was then emailed to representatives from each group asking for participation on the Initiative Steering Committee.
    - The Conservation Team drafted a "statement of purpose" for the Steering Committee to guide input from committee members about Plan development

Products

During FY 2010 – 2011, CRFPO facilitated the advancement of the CCT Conservation Plan through activities described in the above Approach section. Below, we describe the outcomes of each action:

1. **Establishment of the Service's CCT Conservation Team**
    - Based on previous experience gained from development of the Lamprey Plan, we assembled the CCT Conservation Team with staff from the following Service offices: CRFPO, Western Washington Fish and Wildlife Office (Lacey), Oregon Fish and Wildlife Office (Portland), Region 1 Regional Office (Portland), Region 8's Arcata Fish and Wildlife Office, and Region 7's Juneau Fish and Wildlife Office. Appendix 1 lists Conservation Team staff members and contact information. We anticipate that the

development of the Plan will occur over three years, using a total of 2.5 FTE over eight Service biologists (i.e., approximately 0.2-0.3 FTE per person per year). Members of the team will be responsible for the following:

- Participating in regular (monthly) conference calls about Plan development
- Be a point of contact for collaborating partners who want information about the CCT Conservation Plan
- Coordinate with CRFPO to co-lead information gathering for each DPS. This would include:
  - ✓ Assembling a list of local CCT experts (biologists, organizations, agencies)
  - ✓ Organizing (scheduling, inviting, preparing for, etc.) and co-leading regional meetings with local experts in these DPSs (1-2 regional meetings per DPS) to collect information regarding population information, threats, and existing conservation efforts
  - ✓ Assisting with writing sections of the conservation plan that pertain to their respective DPS

Currently, the CRFPO is the only Region 1 office committing to development of the Plan. While other offices have participated in conference calls, time and funding commitments from staff at the regional office, OFWO, and the Western Washington Office to participate in Plan development have not been officially approved by managers. Participation from these offices has largely been limited to attending conference calls and reviewing draft documents. FWS staff outside of CRFPO have suggested that any further activity on their part would require the incorporation of Plan development into their approved work plans.

- On January 20, 2011, Julie Collins, Acting Assistant Regional Director of Fishery Resources in Region 1 sent a memorandum to the Assistant Regional Directors of Fishery Resources of both Region 7 (Anchorage, AK) and Region 8 (Sacramento, CA). The memorandum requested inter-regional assistance from one field station in each region in developing the CCT Conservation Plan. To date, no formal response has been received

from either region. However, staff representatives from Arcata and Juneau have indicated that their local field offices are supportive of the project and would like to assist. The amount of time allocated to their staff or funding to support Plan development has not been specifically designated for Plan development so we are unsure of how much time staff will be able to devote to this project. Additionally, the Juneau Fish and Wildlife Office was recently funded by the Western Native Trout Initiative (WNTI) to work with the State of Alaska to gather CCT occurrence data for the Interagency Committee's range-wide occurrence database. The work is to be conducted in the winter/spring 2011-2012, and we are hopeful that we will be able to utilize this project to obtain information needed for the risk, threats, and conservation needs assessment developed for the Plan.

- A sharepoint site (http://sharepoint.fws.net/Programs/FHC/CCTCI/default.aspx) was developed to distribute Plan products (described below). Members of the team use the site for scheduling conference calls, sharing and editing Plan documents, and sharing literature. Notes from eleven monthly conference calls (occurring between August 24, 2010, and September 20, 2011) are also stored on the sharepoint site; Appendix 2 lists call dates, participants, and describes the main topics of discussion and outcomes for each call.

2. Drafting Plan components

- The CCT Conservation Team reviewed the Lamprey Plan and decided to use it as a model for the CCT Conservation Plan due to similarities between the level of information known between the two species, and because the Lamprey Plan was well-received by partners participating in its development. The Plan will serve as a baseline of existing knowledge, and be written similarly to a recovery plan. Additionally, the Plan will be a living document of knowledge gained through future research, monitoring, and conservation actions. The goal and objectives of the Plan; and Plan strategy, development/implementation, and expected outcomes were drafted by the CCT Conservation Team in autumn 2010:

***Plan Goal*:** The goal of the CCT Conservation Plan is to improve the status and viability of coastal cutthroat trout range-wide, and establish a framework for the restoration, adaptation, and continued persistence of coastal cutthroat trout populations throughout their historic and future ranges.

The Service intends to achieve this goal by coordinating conservation efforts among states, tribes, federal agencies, and other stakeholders. This collaborative conservation effort will generate opportunities to gain a better understanding of the status of coastal cutthroat trout, characterize threats to the species' viability, identify current and future conservation actions, allow the future adaptation of local populations to climate change, and ultimately enhance the geographic distribution and abundance of coastal cutthroat trout range-wide.

***Objectives of the Plan*:**

1. Establish collaborative relationships with partners and stakeholders;
2. Gather existing data on the current geographic distribution and abundance of coastal cutthroat populations range-wide;
3. Identify regional threats to populations;
4. Perform a range-wide population risk analysis;
5. Assess the current viability status of populations and previously-identified distinct population segments;
6. Identify and prioritize current and future conservation actions;
7. Coordinate management activities and integrate other plans;
8. Promote conservation partnerships and on-the-ground efforts;
9. Increase opportunities for funding;
10. Facilitate technical support and coordination;
11. Guide research, monitoring and evaluation to reduce uncertainties;
12. Facilitate efforts that enhance the viability and geographic distribution of coastal cutthroat trout throughout their range by reducing risks and removing threats that may warrant listing as a sensitive species by state and federal agencies.

***Plan Strategy*:** The Service will work as a coordinating agency to engage partners willing to participate in Plan development and implementation. The Service plans to:

1. Coordinate the prioritization of identified conservation efforts;
2. Facilitate increased knowledge about geographic distribution, abundance, population structure, and threats; and
3. Work with partners to develop strategies for conserving, enhancing, and restoring coastal cutthroat trout populations.

***Plan Development and Implementation*:** Plan development and implementation will be based on the voluntary involvement of various federal, state, tribal, county and city biologists working with representatives from local watersheds, private landowners, industry, and conservation organization action agencies.

***Expected Outcomes of the Plan*:**

1. An enhanced description of current knowledge of coastal cutthroat trout life history, biology, and habitat requirements;
2. Identification of coastal cutthroat trout populations, and their current distribution, abundance, and population structure (for those areas where data is available);
3. A range-wide map of historic and current coastal cutthroat trout distribution;
4. A range-wide relative risk assessment by HUC 4 watershed. We are proposing to use this scale because of the scale that data has been and will be collected; a finer scale would result in repetitive information, and a larger scale would be too unwieldy for regional data-gathering efforts, and may miss important details (based on experience from the Lamprey Plan);
5. Description of known threats and reasons for decline; and
6. Identification and implementation of a strategy for restoring coastal cutthroat trout populations that includes:
   - Prioritized threats and actions required to address and mitigate them, including the potential future effects of climate change on local distribution;
   - Prioritized restoration actions, both existing and needed;
   - Prioritized ongoing and future research, monitoring, and evaluation needs; and

- Identified partnerships and potential funding sources to implement actions.

- The CCT Conservation Team drafted an outline for the Conservation Plan (Appendix 3), following the Lamprey Plan as a guide. There are to be three sections in the plan:

1. An introduction, species description, methods describing the risk assessment (i.e., the NatureServe approach, discussed below), results (for the overall range), and a discussion about the implications for the entire CCT subspecies;
2. Several chapters (by DPS) that describe CCT in detail for each DPS, including threats, risk level, and ongoing and needed research and conservation needs; and
3. References and appendices with supporting material.

Figure 4 describes sections 1 and 2 of the general Plan design. The first section (chapter 1) will contain baseline information and will be somewhat static. It will describe the development of this plan, range-wide information about CCT, and the process by which the plan will be used to further CCT conservation (i.e., a conservation strategy). The second section (chapters 2 and beyond) will be more dynamic, and will be updated as information is gained from research and monitoring, or as population status changes in the face of threats or conservation actions.

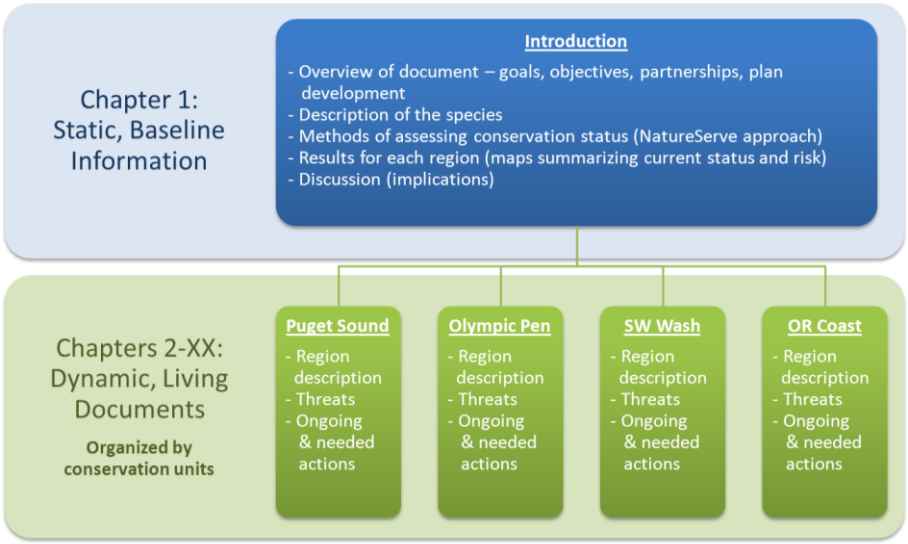

Figure 4. CCT Conservation Plan document organization. Chapters 2 + will likely be organized by DPS (only four are shown here).

- The goals, objectives, and outline reference the need for a CCT population risk assessment. The NatureServe conservation status assessment tool (NatureServe 2009) was used successfully for bull trout recovery planning (in progress) and the five year review (U.S. Fish and Wildlife Service 2008), and for the Pacific lamprey plan (Luzier et al. 2011). Additionally, the NatureServe approach is consistent with, and similar to, other status assessments; e.g., the Western Native Trout Initiative redband trout range-wide status assessment (May and Albeke 2011 (Draft)) and the interior cutthroat trout status assessment (Gresswell 1988). NatureServe uses categorical data for and expert opinion on various parameters to calculate a relative extinction risk score, ranging from critically imperiled to secure, for various population units (for example, metapopulations or DPSs). Users can calculate scores even if some information is unknown, as long as minimum data requirements are met for certain parameters; in the case of CCT where there are information gaps in many areas, this capability will likely be useful.

  For the Conservation Plan, we intend to calculate relative extinction risk scores using NatureServe at the HUC 4 watershed scale across the range of CCT. We anticipate collecting information regarding the following parameters: historic range extent, current area of occupancy, ratio of current to historic distribution, current population size or number of local populations (i.e., elemental occurrences), short-term abundance trend, and threat scope and severity. Once this information is collected (see below section for our proposed data collection methods), NatureServe will generate scores that can be mapped to illustrate areas of least and greatest extinction risk (Figure 5).

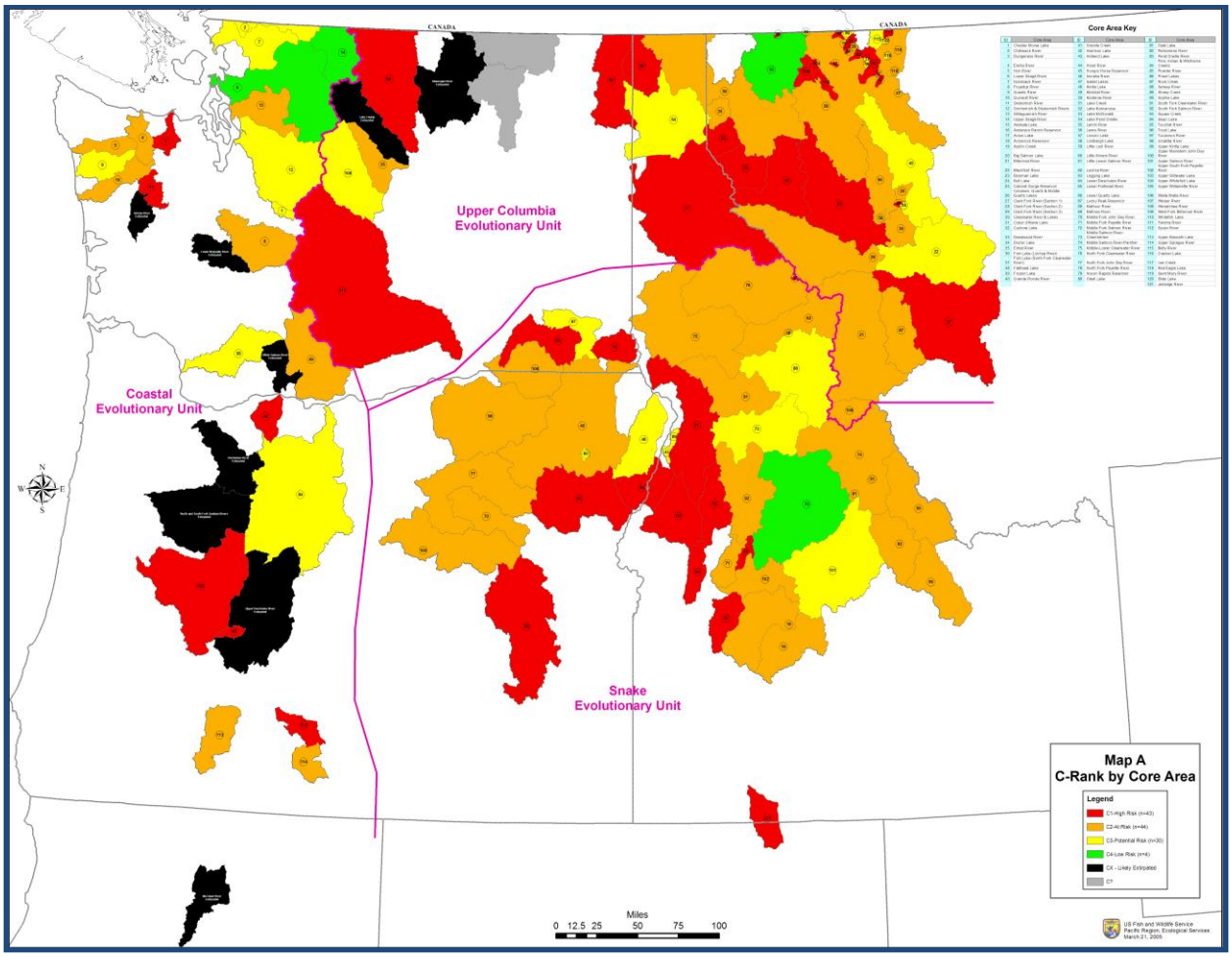

Figure 5. NatureServe relative extinction risk ranked by core area for bull trout (USFWS 2008). In this example, green watersheds are the most secure, and red watersheds are at greatest risk.

- Once our information needs were determined, the CCT Conservation Team discussed how information would be obtained. We anticipate collecting information that will be used for the NatureServe risk assessment (as described above), as well as information about threats and conservation needs. Our decided process for gathering data for the Plan will proceed as follows:

  1. The Interagency Committee's CCT range-wide occurrence database (still under development) will be used as a starting point for determining what information is available and what information needs exist for each watershed. Care will be used in

interpreting the data contained in the database, as much of the data is incidental and collected using various methods and by various agencies. We do not anticipate being able to assess trend or population abundance using the database, as a lack of information doesn't necessarily mean CCT aren't present in a particular area. However, the database may provide contact information, or give a general idea of data for various parameters of interest.

2. Once we have background information gathered, the CCT Conservation Team will hold one or more regional meetings for each DPS to talk with local biologists and experts to fill information gaps that exist for each watershed. CCT Conservation Team members will host, record data, and summarize information collected at these meetings. In addition to the NatureServe parameters described above, we will also collect information regarding ongoing and needed research, monitoring and conservation actions, as well as identify conservation actions for other species (e.g., salmon) that benefit CCT or leave gaps in CCT conservation. Information gathered at these regional meetings will be organized in spreadsheets (similar to the Lamprey Plan and range-wide redband trout status assessment) and cited.

   The Juneau Fish and Wildlife Office was recently granted WNTI funds to work with the State of Alaska to gather data for the Interagency Committee's CCT occurrence database. This work is expected to occur fall 2011 – spring 2012. We anticipate that this project will accomplish not only the needs of the occurrence database, but our needs as well. Alaska is represented on the CCT Conservation Team and we have provided those representatives with information about our NatureServe data needs. Subsequently, we expect that some of the information we will be using for our risk assessment will be gathered through the WNTI project if our timelines of work coincide.

3. After data is gathered and organized, NatureServe will be used by CRFPO CCT Conservation Team members to calculate relative risk scores for each HUC 4 watershed. Areas of highest relative risk and their primary threats will be identified.

Based on these results, ongoing and needed research, monitoring, and conservation actions will be identified and prioritized through discussions with our local partners for each DPS. The living portion of the Conservation Plan (i.e., the individual DPS chapters) will be developed to reflect this information.

3. Publicizing our intentions for the CCT Conservation Plan

- Since 2006, CRFPO has participated as a member of the CCT Interagency Committee representing the Service. During the time period covered by this progress report, we attended a two day meeting (October 21-22, 2009) and participated in several conference calls with the Committee. During the 2009 meeting, the Committee discussed the Service's role in the development of the Conservation Plan (Griswold 2009). CRFPO explained that because the Service had resources that other agencies didn't seem to have at the time, the Service was willing to lead the effort to develop the Plan. The Plan is to be consistent with the goals and objectives of the CCT Conservation Initiative and will identify threats and on-the-ground actions relating to CCT conservation. CRFPO emphasized that the Committee would be updated with progress, and any products developed would be shared with the Committee for review and input. At this meeting, the database was described as "first steps to create the organized framework for conservation, restoration and management of CCT and serve as a valuable tool for the Conservation Plan" (Griswold 2009). During subsequent conference calls, CRFPO staff updated Committee members about current Plan activities conducted by the Service's CCT Conservation Team. Additional conversations were had with PSMFC regarding database information structure and how it might be used with NatureServe; PSMFC provided the Committee's entire occurrence database to CRFPO on April 29, 2011.

- CRFPO also informed other Service programs (i.e., Ecological Services, Fisheries, Refuges) of our efforts to develop the CCT Conservation Plan. We gave an overview presentation about the CCT Conservation Initiative and Plan at the Service's annual Aquatic Conservation Team (ACT) meeting on February 16, 2011, at the Services'

Regional Office in Portland and received positive feedback regarding progress and value.

- Additionally, CRFPO has shared our CCT conservation planning activities with the public. We presented the Conservation Initiative and Plan, and participated in a panel discussion regarding CCT research and conservation, at the 2011 American Fisheries Society annual meeting (Coastal Cutthroat Trout Symposium) on September 6, 2011, in Seattle, WA. Part of the panel discussion focused on the development of the Plan, and how we were intending to work with partners to 1) obtain the data we need for our assessment, and 2) provide a valuable plan in return to aid in the conservation of local CCT populations.

4. Attaining participation from partners

- The CCT Conservation Team assembled a potential list of people from various agencies and organizations who might serve on the CCT Steering Committee. Nearly everyone on the CCT Interagency Committee was included in the list. CRFPO staff emailed an invitation to these potential partners on August 4, 2011, along with an electronic presentation explaining the Plan's intended purpose, our process for developing the Plan, and how partnering agencies could contribute. By the end of the month, CRFPO had received 24 positive responses from individuals representing 19 agencies and organizations. Appendix 4 lists the people who have committed to participating on the Steering Committee.

- The CCT Conservation Team also drafted a statement of purpose for the Steering Committee: first, the Steering Committee will serve to keep their respective external organizations informed of conservation actions planned and in motion through the Initiative (including the development of the Plan) to ensure efficient and practical conservation delivery; and second, members the Steering Committee who can contribute time for a more managerial role will guide development of the Plan by reviewing products and providing technical and/or managerial feedback to the extent feasible.

Additionally, the Steering Committee would be a starting point in contacting regional and local biologists and experts who could participate in regional data collection meetings.

Discussion

During the 2010 and 2011 fiscal years, the CCT Conservation Team was established, held monthly conference calls, and developed several products in preparation of moving forward with collecting data and writing the CCT Conservation Plan. The team developed Plan goals and objectives, a general planning strategy that includes a NatureServe risk assessment, identified expected outcomes, and drafted a Plan outline. In addition, CRFPO publicized the Service's intention to develop the Plan by participating on the CCT Interagency Committee and by giving talks about the Initiative and Plan within the Service and to the larger fisheries community. We have also obtained commitments from numerous individuals representing various agencies and organizations for their participation on the Steering Committee to help guide Plan development.

At this point, the development of the Plan is at a crossroads. We have many external partners who are interested in helping develop a plan that will benefit a valued trust species. However, during the past year, internal participation from the Service has waned. Aside from CRFPO, no other Service office has made a firm commitment to continue with the development of the Plan. Although staff are individually interested in participating, the Arcata office has not received funding nor explicit authorization from the Region 8 RO to continue with their assistance. The Juneau office has been heavily involved with the Initiative. While they also have not received funding nor authorization from the Region 7 RO to participate in the Plan, they do have WNTI funds that they intend to use to support development of the Plan. Juneau's WNTI project will be completed in early spring 2012. If the Plan does not progress during this time, we will have missed a valuable opportunity to gather critical information about CCT status and needs in Alaska. While the Region 1 RO, OFWO and Lacey offices have sporadically participated on monthly CCT Conservation Team calls, staff have not been allocated time in their work plans to consistently contribute to Plan development. In addition to the offices above, the Plan would also benefit from the involvement of the Abernathy Fish Technology Center. Without support and participation from these Service offices, it is unlikely that CRFPO will be able to

successfully collect the required information and assemble a constructive and useful range-wide Plan, especially within the anticipated time frame over the next two-to-three years. It is imperative that we receive Service support for Plan development as soon as possible. The Steering Committee is waiting for developments and any loss in momentum at this point could hinder completion of an effective Plan and implementation of the Initiative.

At the end of 2011 and in January 2012, CRFPO approached the other Service offices that have participated in Plan development to inquire about the level of commitment they can provide to support the Plan from this point forward. To date, responses have been limited and indecisive. CRFPO has decided to gauge the level of interest and participation that the Service, as well as other agencies and organizations, can provide to Plan development by formulating a short survey. We anticipate sending this survey out in Spring 2012 to managers who are able to make decisions regarding funding and staff work plans. We hope to receive responses back within two weeks; at that time, we will compile the results of the survey, discuss the implications for the level of CRFPO staff participation, and determine whether there is adequate interest and resources to move forward with the Plan. We will brief the R1 Fisheries Assistant Regional Director about our findings so that decisions can be made about how best to support the Initiative and Plan development.

Depending upon the outcome of CRFPO's assessment of interest and resources available for Plan development, changes to the Plan development strategy may occur. If we receive the level of support we deem necessary to develop the plan range-wide, we will work with our other CCT Conservation Team offices and external partners to accomplish this. However, resource limitation may prevent completion of a range-wide plan within the desired time frame. In this case, we may propose to proceed, initially, with Plan development for a single DPS, ideally where interest and resources are sufficient to support the Plan development process. If this is the path that is chosen, we hope to continue to receive support from members of the Steering Committee who are committed to CCT conservation. While the Plan may not include all areas initially, feedback from those outside the chosen DPS will be valuable for creating a plan that can later be expanded to include other DPSs. In addition, developing a Plan for a single DPS will serve as a template for planning in other DPSs.

Provided that we can attain full internal support from the Service, our partners, and move forward with Plan activities, we anticipate that we will be able to have a draft range-wide or DPS-specific Plan by the end of 2014. Our next steps are proposed as follows:

1. In the spring of 2012, the CCT Conservation Team will convene the Steering Committee for an initial meeting to provide an overview of the Initiative, Plan and planning process; receive feedback from committee members regarding what they would like to see and what they believe is necessary in the Plan; and receive information about local contacts who may provide technical information at regional meetings.
2. Use the Interagency Committee's range-wide CCT occurrence database as a starting point for identifying what information we have and where data gaps exist across the range. Information will be summarized by CCT Conservation Team members and assembled as a resource for regional meetings.
3. For each DPS in the continental US (Figure 2), one or more regional meetings with local biologists and experts will be conducted by CCT Conservation Team members, according to their DPS of responsibility, during 2012 and 2013 to gather information required to perform a NatureServe risk assessment; and identify threats and ongoing and needed research, monitoring, and conservation actions. A similar process will be used to gather information on Alaska CCT populations.
4. Data will be organized and documented as it is gathered from regional meetings by the appropriate members of the CCT Conservation Team according to DPS. CCT Conservation Team members at CRFPO will perform the NatureServe risk assessment at the HUC 4 watershed scale range-wide. Threats and ongoing and needed research, monitoring and conservation actions will be assessed by DPS. Data will be compilied and the Plan will be written by the CCT Conservation Team during 2013 and 2014. We anticipate that a first draft of the Plan will be written by the CCT Conservation Team and reviewed internally by the end of 2014.

The CCT Conservation Plan will be a living, dynamic document that identifies threats and needs of CCT, as well as current and required conservation actions. It will be based on local

knowledge and utilize the NatureServe approach to assess relative risk for CCT across its range. Additionally, with the needs and priorities identified in the Plan, the Initiative will provide a forum for coordinating on-the-ground conservation activities to maximize efficient use of limited resources.

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Appendix 1: CCT Conservation Team Members

Staff Member	Email / Phone	Office Address
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Appendix 2: Summary of CCT Conference Calls

The below table summarizes office participation, topics and outcomes that were discussed by the CCT Conservation Team during monthly conference calls. Complete call notes can be found on the Initiative's sharepoint site: http://sharepoint.fws.net/Programs/FHC/CCTCI/default.aspx

Call Date	Service Office Present	Main Discussion Topics and Outcomes
Aug. 24, 2010	CRFPO, R1 Regional Office (RO), Western Washington Office (WWO), Juneau, Arcata	• Determined role of the CCT Conservation Team in developing Plan – similar to the Lamprey Plan, the Team represents different areas within the range of CCT, and members would assist with coordinating Plan development and writing the Plan. • Summarized CCT conservation planning activities to date. • Discussed general Plan approach and strategy; Team will look at the Lamprey Plan and Draft Bull Trout Recovery Plan (will mirror a recovery plan). • Discussed project timeline for Plan development and completion – anticipate a total of 3 years with the participation of staff from all necessary Service offices. • Discussed level of participation needed from each Service office; CRFPO will provide the number of FTEs required to complete the Lamprey Plan to the Team.
Oct. 5, 2010	CRFPO, RO, WWO, Juneau, Arcata	• Discussed Service office participation in CCT Plan development; CRFPO can provide 3 staff, WWO will provide 20 days of T. Leavy's time in FY 2011, D. Campton can contribute 10% of his time in FY 2011. Juneau and Arcata need a request to their regions from R1 to participate; Juneau has proposal for WNTI funding that would support the Plan. • Initial thoughts on the Lamprey plan approach; should look at DPSs as conservation units, the Plan can build on the 1999 NOAA status assessment (but be updated). Also, should be up front about the Plan as a living document, that changes with time and info gathered.
Nov. 2, 2010	CRFPO, RO, WWO, Oregon Fish and Wildlife Office (OFWO), Arcata	• CRFPO set up the CCT Conservation Initiative sharepoint site for Plan document sharing. • Discussed the Plan format and content; will be similar to recovery plan, and follow others (i.e., bull trout and Pacific lamprey); could look at the Yellowstone cutthroat trout assessment as an alternative. Determined general Plan outline structure. Need to keep ES involved. • The Team will review draft Plan goals, objectives, and outline to discuss during next call.

Call Date	Service Office Present	Main Discussion Topics and Outcomes
		• When to bring in partners and cooperators – need to establish a steering committee, and should have check-in points when key Plan products are drafted for their review. Will keep the Interagency Committee informed.
Nov. 29, 2010	CRFPO, RO, OFWO, WWO, Arcata	• Discussed draft Plan goals and objectives – need to avoid all language that was "ES-like"; will include both a status assessment and conservation measures; need to be careful of objectives crossing into legal issues (e.g., mentioning listing). • Discussed draft Plan outline – D. Campton will run outline through ES at the RO. Outline will include introductory chapter with summary background info, and subsequent chapters will be region-specific and dynamic.
Feb. 8, 2011	CRFPO, WWO, Juneau	• The interregional request for collaboration (from R1 to R7 and R8) was sent out from Julie Collins on Jan. 20, 2011. • CRFPO is in the process of preparing a presentation on the Plan for the ACT meeting at the RO. • CRFPO incorporated comments and revisions to the goals and objectives; now available for final review by the Team. • Discussed the formation of the Steering committee compiled a list of potential agencies / organizations and people to contact about participating. • Discussed presenting our approach to the Steering Committee – initial invitation will include a PowerPoint presentation that outlines the Plan and development strategy, and the role of the Steering Committee. • Discussed the status of the Interagency Committee's occurrence database – CRFPO will touch base with K. Griswold to talk about how the database can help with data-gathering for the Plan.
March 8, 2011	CRFPO, RO, WWO, Arcata, Juneau	• CRFPO provided a Steering Committee development update – has draft list of agencies / organizations to invite, invitation letter, and presentation outline – need Team to review. • CRFPO provided a summary of the Interagency Committee conference call (Feb. 17, 2011). • Interregional collaboration request update – still no response, but Juneau's WNTI proposal was funded ($16 K) and will support Plan data gathering efforts.
May 3, 2011	CRFPO, RO, WWO, Arcata, Juneau	• CRFPO provided a Steering Committee development update – need statement of purpose and presentation (pdf) to accompany initial invitation; requests that the Team review drafts of these items.

Call Date	Service Office Present	Main Discussion Topics and Outcomes
		• The Interagency Committee sent CRFPO a copy of the entire CCT range-wide occurrence database; discussed the need to determine how data can be used in conjunction with NatureServe, and what the limitations are. • Interregional collaboration request update (still no response); also, the Team needs to work with Juneau to determine what data they should be collecting during the WNTI data-gathering project for our purposes.
June 14, 2011	CRFPO, RO, WWO, Juneau	• Will send out Steering Committee invitation and presentation at end of June; target for initial meeting will be mid-August. • Discussed the need to summarize the information that the Interagency Committee's range-wide database contains, and summarize where gaps are for NatureServe data needs. • Discuss NatureServe data needs with Juneau for their WNTI data collection project – CRFPO will coordinate a conference call with Juneau to discuss NatureServe in detail. • Discuss division of labor across the range of CCT – which offices will be responsible for what areas? Likely will be by the DPS structure proposed by NOAA in 1999; need to contact OFWO to see if they can handle OR Coast and/or Willamette DPSs. T. Leavy will check to see if WWO can handle Puget Sound and Olympic Peninsula; CRFPO will likely handle SW Washington/Columbia River and assist with others. • Discussed having CCT Conservation Initiative logo – if anyone has ideas, send them forward.
July 12, 2011	CRFPO, Arcata	• Steering Committee update – pdf presentation ready for review by the Team on the Sharepoint site. • Discussed where/when to host initial Steering Committee meeting – approach PSMFC to host, still shooting for mid-August or early September for the initial meeting.
Aug. 9, 2011	CRFPO, RO, Juneau	• Steering Committee invitation package sent out Aug. 4, 2011; many interested parties have responded back to CRFPO that can contribute varying levels of participation on the Steering Committee. Next step will be to organize the meeting at CRFPO – propose Oct. 6, 2011. • Discussed organization of regional meetings to gather data for the status assessment and Plan conservation measures; will start to coordinate these meetings early 2012. • Discussed a CRITICAL NEED – must get commitment for internal Service support (RO and field) for the Plan.

Call Date	Service Office Present	Main Discussion Topics and Outcomes
Sept. 20, 2011	CRFPO, OFWO, Arcata, Juneau	• Discussed our top priority critical need – internal Service commitment for Plan development. CRFPO is doing most of the work, and participation from other offices seems to be waning. In order for the Plan to move forward, Team members need support from their office's to contribute time towards Plan development activities. CRFPO will follow up with Team members about getting commitments for including the Plan in their work plans. • Discussed the initial Steering Committee meeting (format and content); we decided that it has to be put on hold until the level of internal support is determined. • Discussed the Plan's timeline – regional meetings (for Alaska, at least) need to coincide with Alaska's WNTI project for data gathering efforts or a major opportunity for gathering data may be missed. N. Stichert estimates that Juneau will be working with the state of AK through April 1, 2012. • CRFPO provided a summary of the Plan presentation and discussions regarding the Plan at the AFS annual meeting.

Appendix 3: CCT Conservation Plan Outline

October 14, 2011

Disclaimer
Acknowledgments
List of Tables
List of Figures
Acronym and Symbol List

EXECUTIVE SUMMARY

SECTION 1 – Intro, Background, Methods, Broad Results

CHAPTER 1:

I. INTRODUCTION (document overview; 1-3 pages that "introduce" the document)
   A. Problem: range-wide status of CCT
   B. Goals of plan
   C. Objectives of plan
   D. Strategy of plan, including process used to develop plan
   E. Desired/expected outcomes of plan

II. BACKGROUND (description of the species)
   A. Summary of CCT biology and life history
      1. Species description, geographic distribution, phylogenetics, and taxonomy
      2. Life history and habitat characteristics (by life stage), ecology, genetics, and population biology (structure)
   B. Results of ESA status reviews conducted by NMFS (1999) and FWS (2002, 2010)
      1. Historic and current abundance and distribution, trends
      2. Identification of DPS' (brief delineation of DPS' and criteria for their designation)
         a) Puget Sound DPS
         b) Olympic Peninsula DPS
         c) SW Washington / Columbia River DPS
         d) Oregon Coast DPS
         e) Southern Oregon/California Coasts DPS
         f) Alaska
      3. Threats and risks identified by NMFS (1999) and FWS (2002, 2010)
      4. Conclusions of FWS (2002, 2010) regarding status
   C. Current management status, regulatory mechanisms and conservation strategies
      1. Federal
         a) USFWS
         b) USDA
         c) US Forest Service
         d) BLM
         e) National Park Service

f) Others
2. State and provincial
   a) California
   b) Oregon
   c) Washington
   d) British Columbia
   e) Alaska
3. Tribal
4. NGO's (WNTI, non-profit organizations, etc.)

III. METHODS for developing plan
A. Criteria for designating *conservation units* (CUs) within DPS'
B. Regional meeting process
   1. Biological data gathered and collated for each unit from local and regional experts
      a) Types of data obtained
      b) Statistical/graphical methods for summarizing data
   2. Criteria for identifying threats and determining conservation needs
C. Methods for determining trends in abundance and status since 2002
D. Methods for assessing risks and population viabilities (i.e., NatureServe)
E. Criteria for assessing conservation needs and desired actions

IV. RESULTS SUMMARY
A. Summary of relative risk assessment for the entire range of CCT
   1. Maps for each state showing current status and risk

V. DISCUSSION AND CONCLUSIONS
A. Implications for the entire range of CCT

SECTION 2 – Region-specific information and results

(In this scenario, each chapter represents a state, which is then broken down by DPS; alternatively, chapters could be individual DPSs.)

CHAPTER 2: Washington Conservation Status and Proposed Actions

A. Puget Sound DPS
   1. Conservation units
   2. Trends in abundance and status
   3. Threats and relative risk
   4. Conservation status, population viabilities, and uncertainties
   5. Proposed actions to reduce risks and increase viabilities (including RM&E)
B. Olympic Peninsula DPS
   1. Conservation units
   2. Trends in abundance and status
   3. Threats and risks
   4. Conservation status, population viabilities, and uncertainties

5. Proposed actions to reduce risks and increase viabilities (including RM&E)

C. SW Washington / Columbia River DPS
   1. Conservation units
   2. Trends in abundance and status
   3. Threats and risks
   4. Conservation status, population viabilities, and uncertainties.
   5. Proposed actions to reduce risks and increase viabilities (including RM&E)

CHAPTER 3: Oregon Conservation Status and Proposed Actions

A. Oregon Coast DPS
   1. Conservation units
   2. Trends in abundance and status
   3. Threats and risks
   4. Conservation status, population viabilities, and uncertainties
   5. Proposed actions to reduce risks and increase viabilities (including RM&E)

CHAPTER 4: California Conservation Status and Proposed Actions

A. Southern Oregon/California Coasts DPS
   1. Conservation units
   2. Trends in abundance and status
   3. Threats and risks
   4. Conservation status, population viabilities, and uncertainties.
   5. Proposed actions to reduce risks and increase viabilities (including RM&E)

CHAPTER 5: Alaska Conservation Status and Proposed Actions

A. Alaska
   1. Conservation units
   2. Trends in abundance and status
   3. Threats and risks
   4. Conservation status, population viabilities, and uncertainties
   5. Proposed actions to reduce risks and increase viabilities (including RM&E)

SECTION 3 – Literature Cited and Appendices

LITERATURE CITED

APPENDICES

A. Puget Sound DPS supporting materials
B. Olympic Peninsula DPS: supporting materials
C. SW Washington / Columbia River DPS: supporting materials
D. Oregon Coast DPS: supporting materials
E. Southern Oregon/California Coasts DPS: supporting materials
F. Alaska: supporting materials

Appendix 4: CCT Steering Committee Members

The following people have agreed to serve on the CCT Conservation Plan Steering Committee. Members represent federal and state agencies, tribes, and non-profit organizations.

Committee Member	Organization	Email Address
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