

Implementation Monitoring Report for the Washington Conservation Reserve Enhancement Program (CREP) for Federal Fiscal Year 2014



January, 2015

Brian Cochrane
Habitat and Monitoring Coordinator
Washington State Conservation Commission

Table of Contents

Introduction	3
Methodology	4
Results and Discussion.....	4
Number of Contracts, Distribution of Projects and Practices	4
Practice Types:.....	7
Buffer Length, Area and Width:	8
Seedlings, Troughs, and Fencing.....	11
Program Progress	12
Literature Cited	13

Washington Conservation Reserve Enhancement Program

Introduction

The Conservation Reserve Enhancement Program (CREP) is a voluntary nationwide program that offers financial incentives to farmers to restore riparian habitat (streamside trees and shrubs) in lieu of agricultural activities in those buffers during the contract duration (10-15 years). Congress created the Conservation Reserve Program (including CREP) in the 1985 Farm Bill due to increased concern over unacceptably high levels of soil erosion. The Washington State program began in 1998 with the first contracts signed in 1999. CREP is cooperatively administered by the U.S.D.A. Farm Service Agency (FSA) and the Washington State Conservation Commission. The federal government pays approximately 80% of the total costs.

In Washington State, about 37% of salmon streams on private land pass through agricultural land use (USFWS and NMFS 2000). Because much of the agricultural land is located in or near historic floodplain-rich habitat, it is important that efforts continue to develop opportunities to not only improve riparian habitat for healthy watersheds, but also to maintain viable agriculture. Once land is converted to more intensive development (urban and industrial), environmental impacts increase and the prospects to preserve or restore habitat near streams greatly decrease. Schueler (1994) found that changes to channel stability, water quality, and stream biodiversity all begin to degrade at 10-25% watershed imperviousness. Between 1982 and 1997, about 20% of the farmland in the Puget Sound region was lost to other uses, especially in King and Snohomish Counties where urban growth has been high (Canty and Wiley 2004).

The primary focus of the Washington CREP is riparian buffer restoration and protection along salmon streams' including establishment of buffers along streamside wetlands. Four USDA Natural Resources and Conservation Service practices are permitted under CREP: riparian forest buffer (practice number CP22), wetland enhancement (CP23), hedgerows (also CP22), and grass filter strip (CP21). The program also cost-shares fencing and watering facilities installed on livestock farms to prevent grazing access to the buffers and stream. The newly planted native trees and shrubs are then actively maintained for five years to increase the likelihood of success. Maintenance includes planting replacement, weed control and watering.

Monitoring is an important component of habitat restoration. Without it, there can be no knowledge of what's been done, where it has been done, and no measurement of success in the investments and techniques. Implementation monitoring of CREP tracks how much has been done. These measures are: acres treated, stream miles restored, number of contracts, feet of fencing installed, and number of plants planted. The implementation monitoring data is used to show program performance to the Office of Financial Management, the legislature, and the Farm Service Agency. It is also used for management

purposes within the Washington Conservation Commission to allocate funds and better manage the program.

This report describes the methodologies and results for implementation monitoring assessment in the Washington State CREP for the federal fiscal year 2014.

Methodology

Methodology for Washington CREP implementation monitoring is straightforward. The Washington Conservation Commission (WCC) uses a cloud-based database for Conservation Districts to plan, report and track payment on projects and practices they implement. The database was queried for projects, practices and metrics for CREP projects with CRP-1 contract dates between October 1, 2013 and September 30, 2014. Results of the query were analyzed in an Excel spreadsheet and compared to a query of all practices and metrics in the database, grouped by federal fiscal year. Additionally, expired contracts were identified by querying those practices with contract rental ending dates in FY2010 – FY2014. Renewed contracts are identified by notes in the project description, so all new contracts for FY2010-Fy2014 were queried for notes to identify if the project was a new or renewed contract. Quality control was achieved by comparing the implementation data query results to a query by WCC financial staff.

Results and Discussion

Number of Contracts, Distribution of Projects and Practices

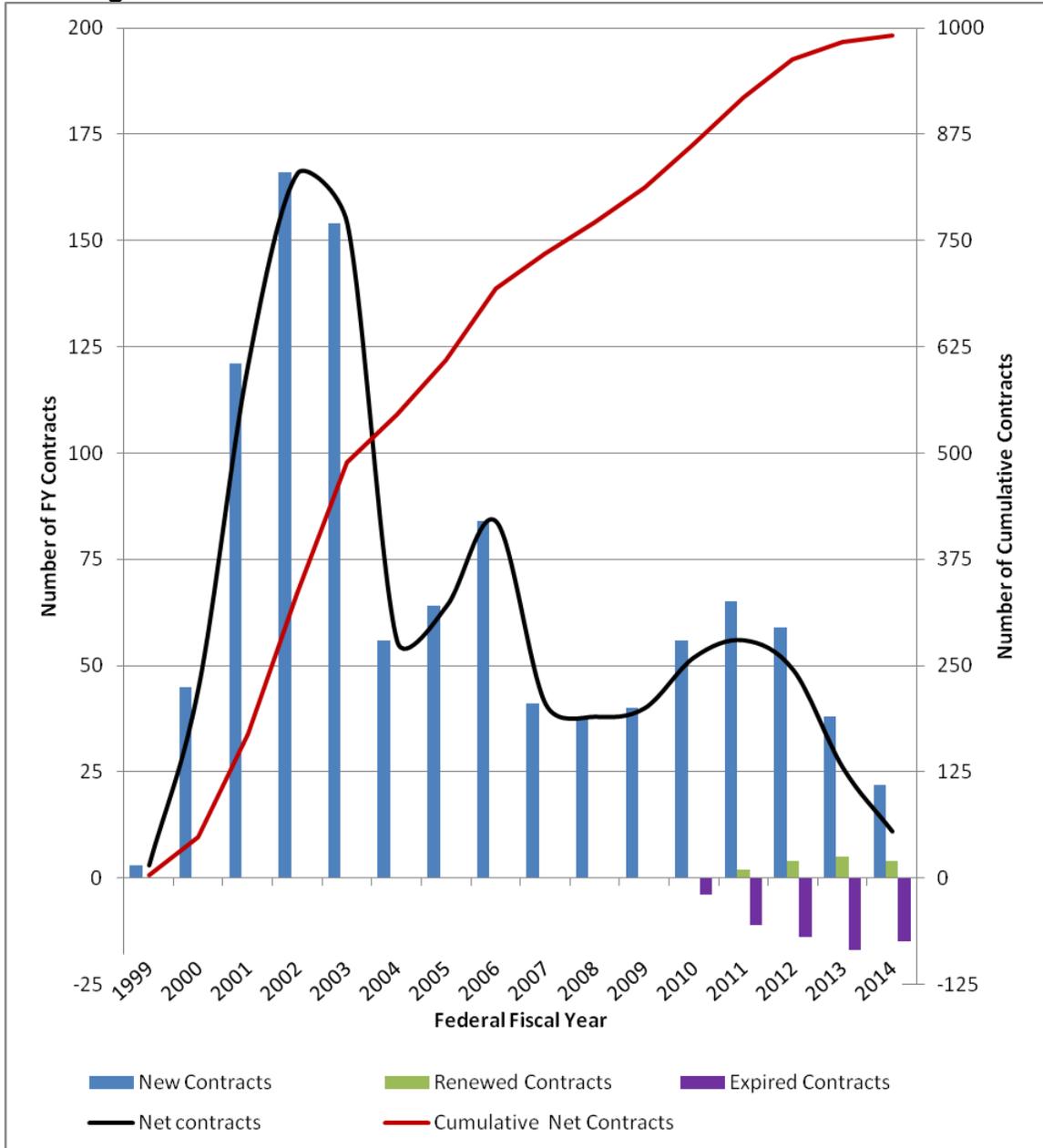
Twenty-six (26) contracts were signed in 2014 in Washington State (Figure 1). Of these, four (4) were renewal contracts, resulting in a total of 22 new contracts for FY2014 and a total of 1,067 active projects. This represents the lowest number of new contracts since the program's inaugural year, FY1999.

A combination of factors is suspected for the low participation level. Government shutdown and late Farm Bill passage (February) contributed somewhat to the decrease, as District personnel were less sure of funding and not willing to promise landowners money that may not materialize. By contrast, in spite of the enrollment period being less than five months for fiscal year 2013, 43 new contracts were signed. Fatigue from late funding two years in a row may have impacted District staff and owner willingness as well.

Another factor contributing to low numbers of new contracts could be staffing. The Washington Conservation Commission CREP Coordinator position was vacant beginning in July of 2014. A similar dip in new contracts can be seen in 2007-2009, when a vacancy in the CREP Coordinator position, coupled with a

reduction in state funding, coincides with only 38-41 new contracts each fiscal year (Debbie Becker, personal communication, December 18, 2014).

Figure 1. The number of CREP contracts signed each Federal fiscal year in Washington State.



The total number of current contracts in the database to date (1,067) is less than the 1,113 contracts reported through the end of calendar year 2013 by Smith (2013). The most likely cause of the discrepancy is that the 2013 data query did not include contract rental end date so expired contracts could not be identified. Additionally, renewal data is stored by simply updating the contract number, signing date and rental period, so some contracts previously reported as new for

2010-2013 were actually renewed contracts. Lastly, previous report methodology may have simply added current year contracts to previously reported contracts rather than re-sampling the entire database as was done this year.

Figure 2 shows the distribution of new and renewed FY2014 CREP projects in Washington State. All contracts were located in the northwest corner of the state in Whatcom(24) and Skagit (2) Conservation Districts. The additional FY2014 projects complement the already successful program implementation in the north Puget Sound area (Figure 3).

Figure 2. Location of new and renewed FY2014 CREP Project Sites in Washington State.

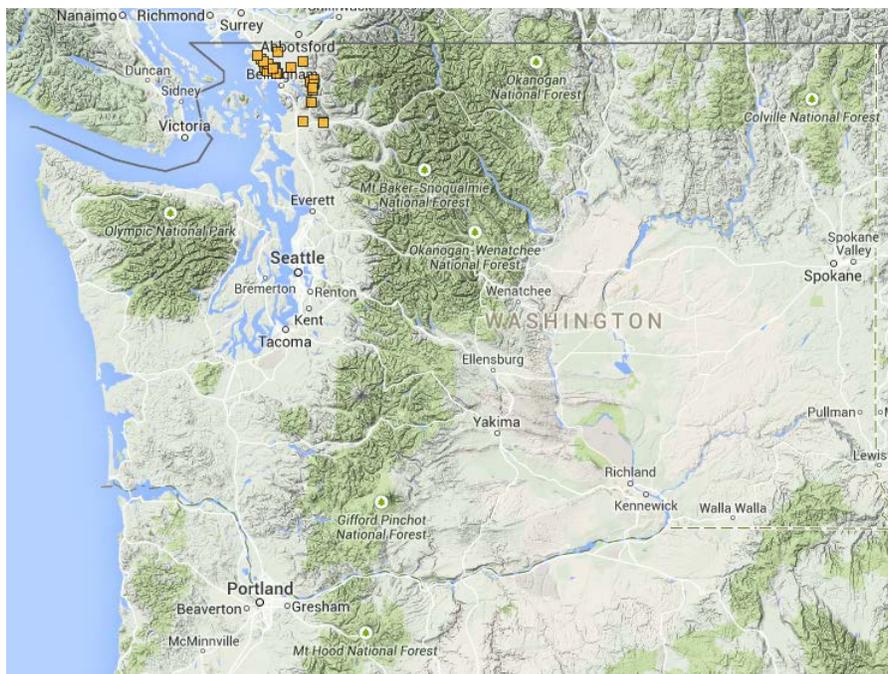
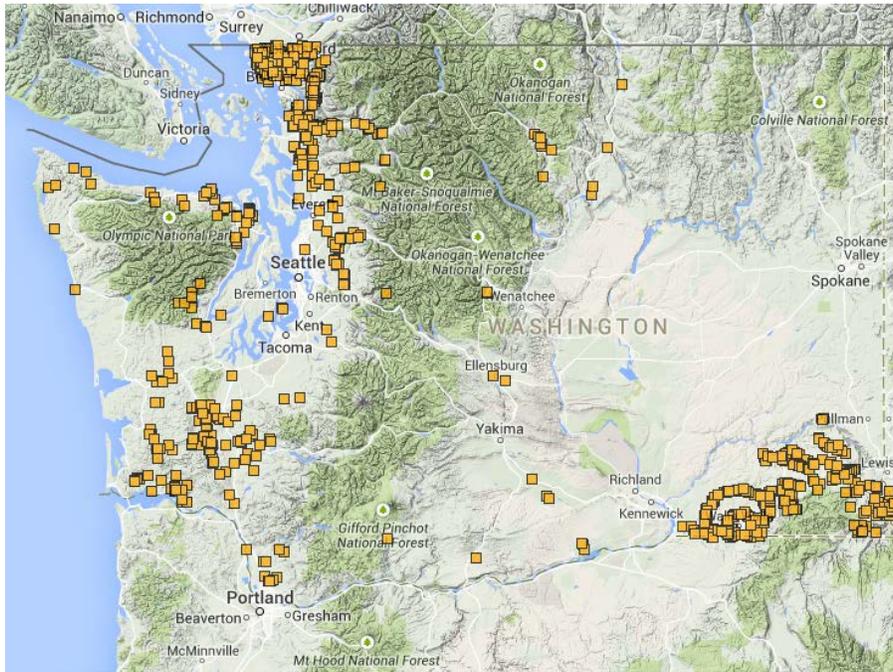


Figure 3. Location of all CREP Sites in Washington State.



Practice Types:

Practices installed in FY2104 diverged from trends established in previous years. Combinations of practices are now possible on a single project site since wetland enhancement, riparian hedgerows, and grass filter strips were added to the list of eligible practices under Washington CREP in 2011. While the most frequently installed practice in the overall CREP program remains riparian forest buffer due to many years of being the only available practice, riparian forest buffer was not installed by itself in 2014 (Figure 4). Also interesting is that wetland enhancement was applied at a far greater rate (42%) as a single practice for the majority of practices in 2104 compared to all data since 2011 (8%) when the practice became available (Figure 5). As in other years since 2011, hedgerows were not installed as a stand-alone practice in 2014. No grass filter strips were installed in 2014, either singly or in combination with other practices.

Figure 4. Practice types and combinations of practice type installed on CREP projects in FY2014 in Washington State (n=21).

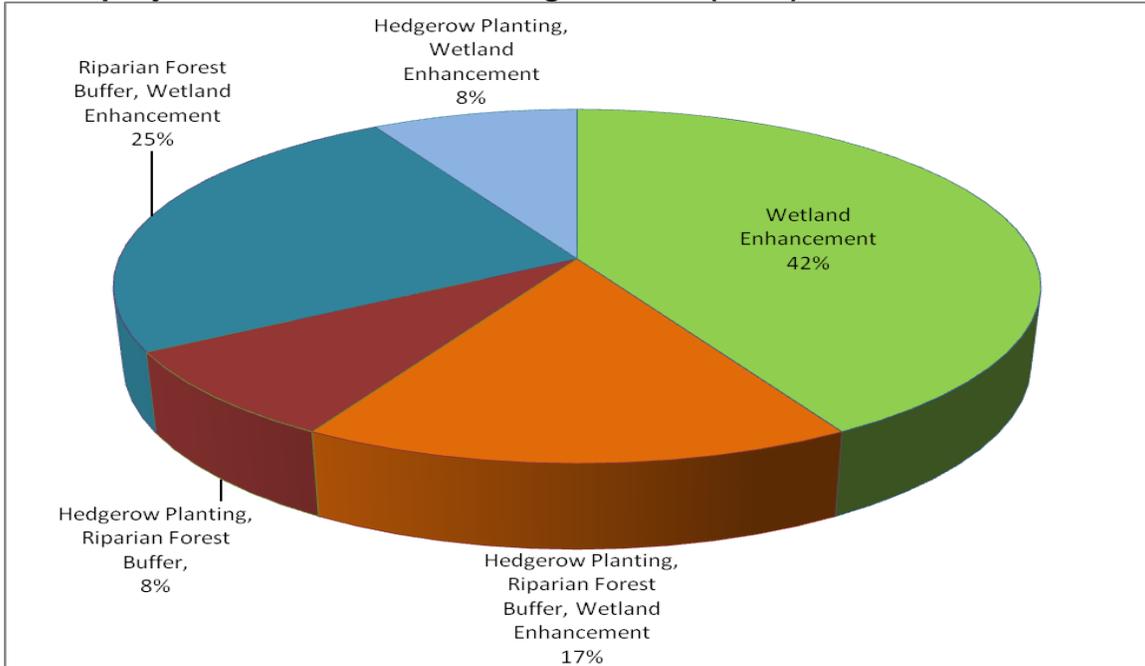
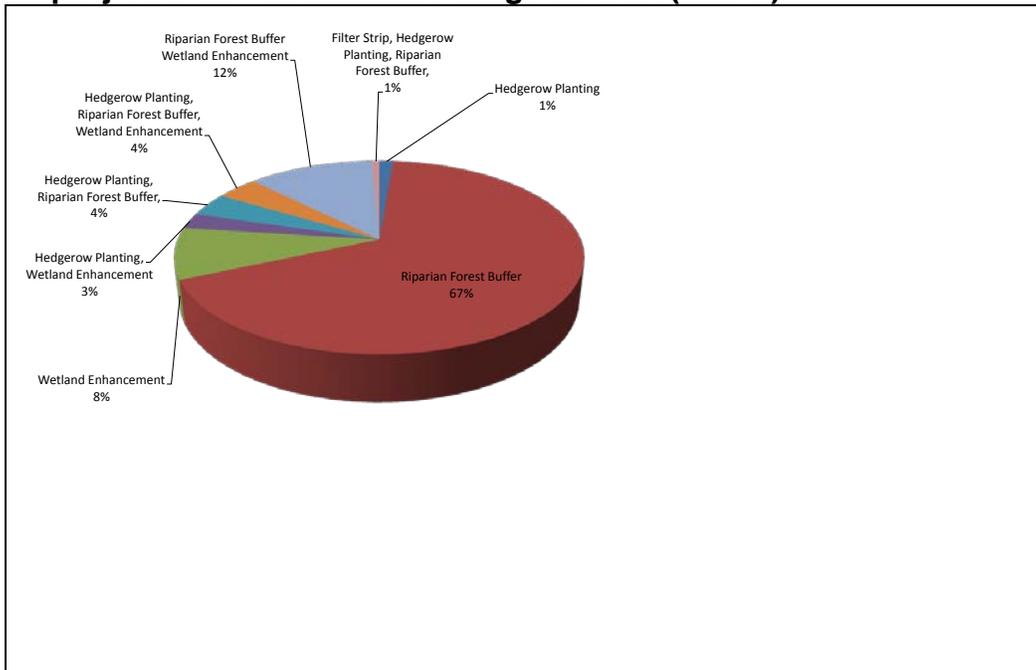


Figure 5. Practice types and combinations of practice type installed on CREP projects since 2011 in Washington State (n=152).



Buffer Length, Area and Width:

In FY2014, 6.3 additional stream miles were restored and protected in the Washington CREP due to new contracts. An additional 1.3 miles of stream length were re-enrolled in the program. Unfortunately, 47.6 miles of stream

length were un-enrolled from the program due to expired contracts, resulting in a net un-enrollment of 40 miles under contract (Figure 4). This continues the trend observed in 2013 when a net 37.1 miles of stream miles under contract were un-enrolled from the program as expired contracts exceeded new contracts and renewals. A total of 634.4 miles are currently enrolled in CREP, down from a high of 714 miles in FY2012, a decrease of approximately 11%.

Likewise, cumulative CREP buffer acres also declined again in FY2014. New contracts brought in 71.45 acres and 15.3 acres were renewed. A net un-enrollment of 646 acres reflects the large disparity between new, renewed and the 717 acres un-enrolled from the program due to expiring contracts (Figure 5). A total of 11,426.3 acres are currently enrolled in CREP, down from a high of 12461.7 in FY2012, an 8.3% decrease of acres enrolled.

Figure 4. Annual and cumulative stream miles protected by CREP buffers.

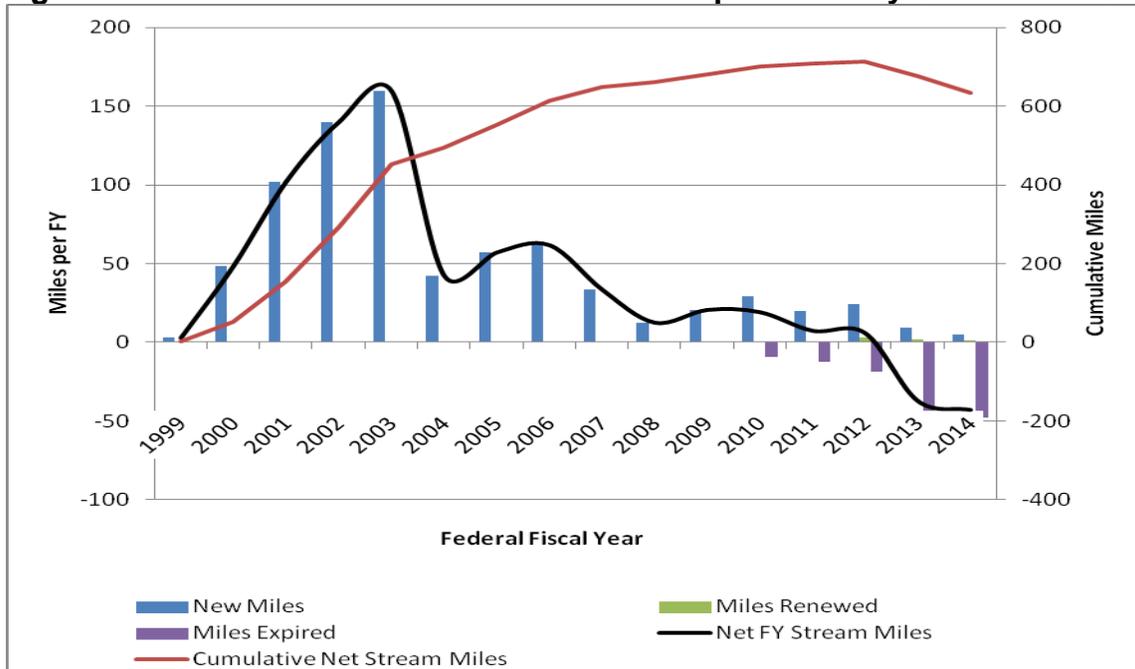
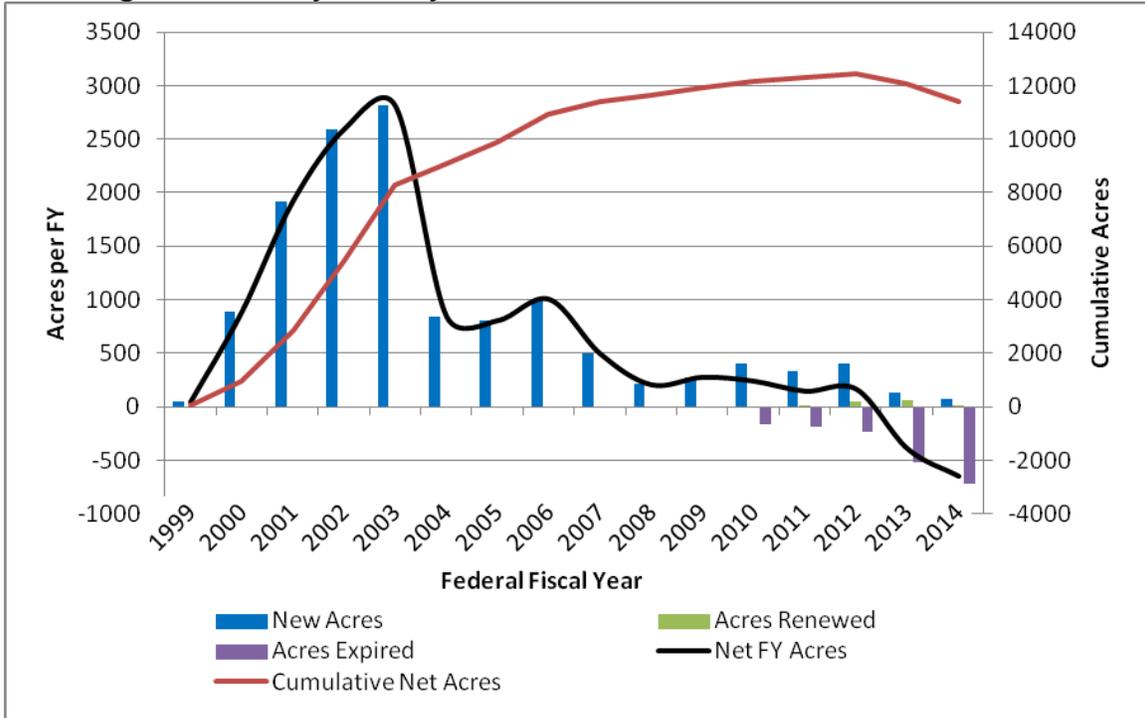


Figure 5. Area (acres) of all practice type buffers enrolled in the Washington CREP by fiscal year.



Of interest is the change in riparian forest buffer width installed in FY2014 compared to previous years. Figure 6 shows that approximately 40% of all buffers installed are 180' (the maximum width compensated by the CREP program). or more wide, consistent with results from 2013. Median width remained at 150 feet. This compares to projects installed in FY2104 with an average of 106 feet and only 24% of projects with buffers greater than 100 feet (Figure 7). These riparian forest buffer widths still exceed minimum buffer width of 35 feet, installed at only one project in FY2014.

Figure 6. Frequency of average buffer width for Riparian Forest Buffer practices at CREP sites, FY1999-FY2014.

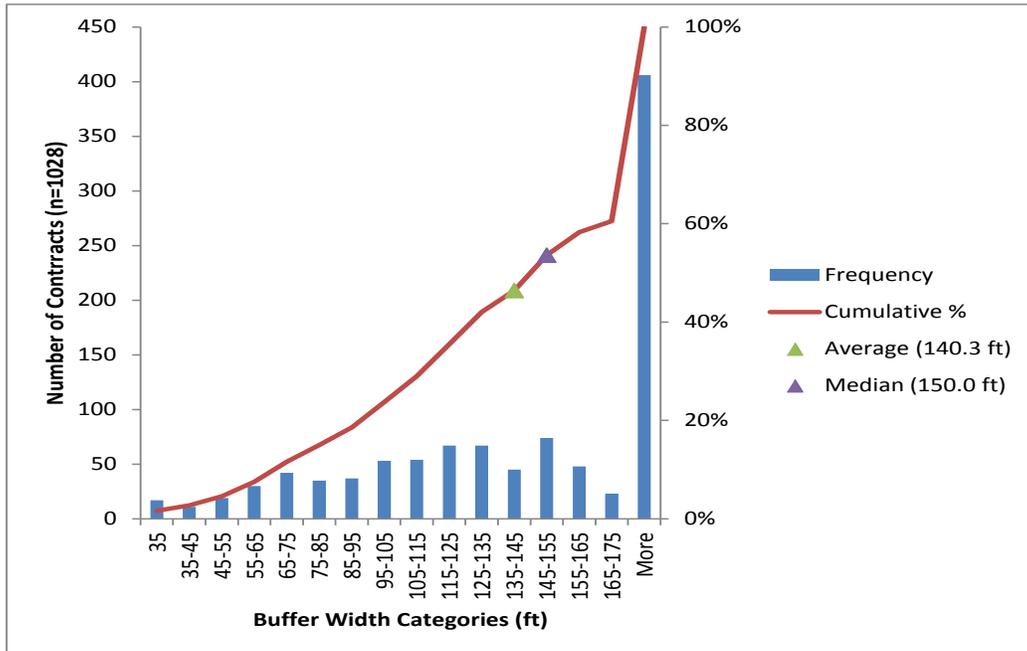
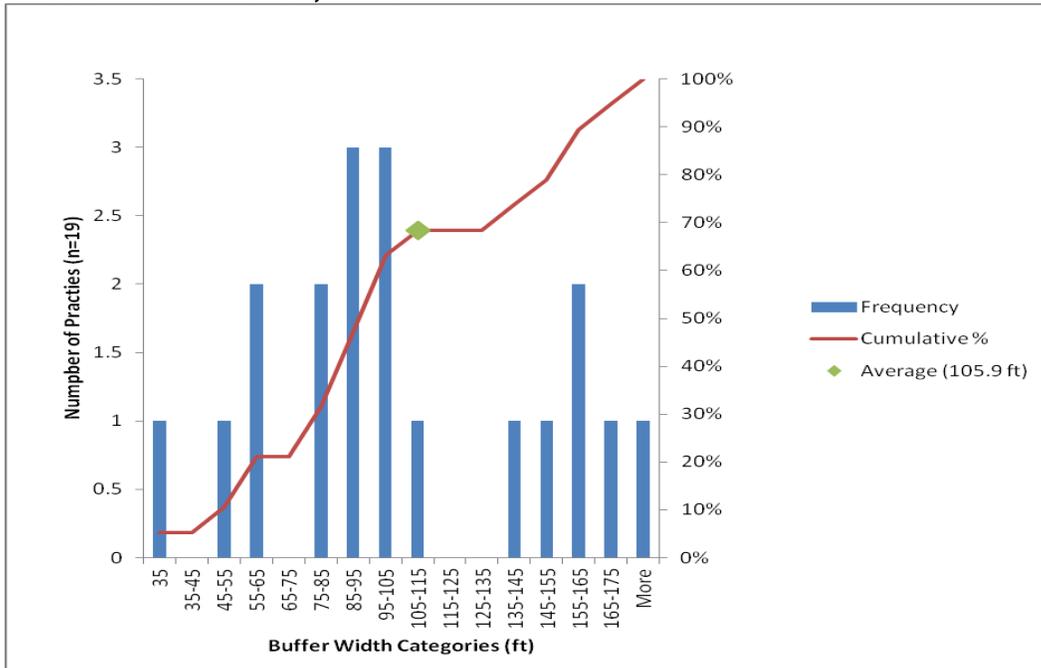


Figure 7. Frequency of average buffer widths for Riparian Forest Buffer practices at CREP sites, FY2014.



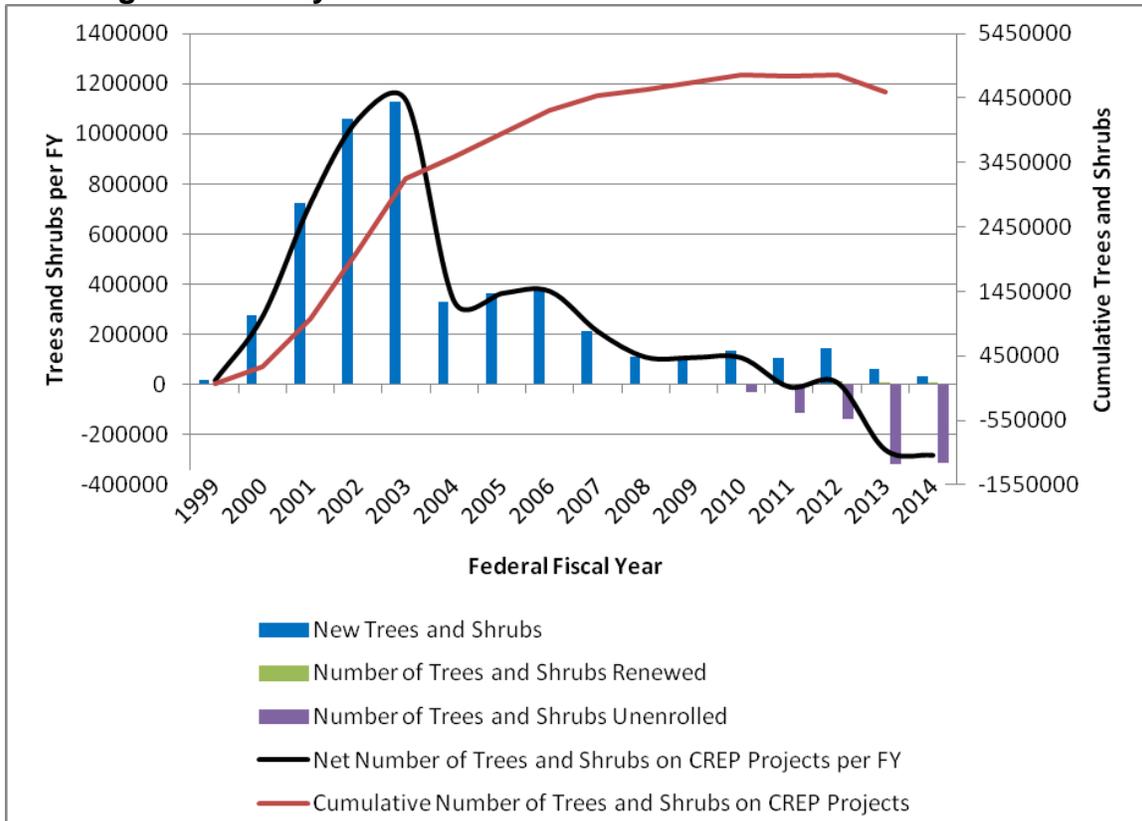
Seedlings, Troughs, and Fencing

A total of 30,924 trees and shrubs were planted on new CREP contracts during FY2014. The overall pattern of declining enrolled program trees and shrubs

under CREP contract seen in area and stream length is mirrored in the tree and shrub data (Figure 8). Overall, a total of 911,500 trees and shrubs planted under CREP have un-enrolled from the program since 2010.

No projects installed fence or watering facilities in 2014. Those totals remain at 1,476,000 feet and 211 facilities respectively.

Figure 8. Total and cumulative numbers of trees and shrubs planted in the Washington CREP by Federal FY.



Program Progress

Clearly, the net decline in contracts and associated net un-enrollment of miles, acres and vegetation under contract is of greatest concern. The amount of stream miles that lapsed out of the program in the past two years is greater than the amount gained by new contracts and renewed in the past five (5) years (Figure 4). Immediate efforts to identify underlying causes of the net un-enrollment should be taken. A list of contributing factors may include:

- Lack of owner awareness that contracts are up for renewal;
- Lack of agency (FSA, WSCC, CD) awareness that landowner contracts are up for renewal;
- Lack of sufficient incentive for continued landowner participation, either rental rate or signup bonus;
- Changing commodity prices;

- Lack of landowner willingness to maintain projects to bring practices to standard required for re-enrollment;
- Undesired secondary effects (beavers);
- Increasing irrigated cropland and development pressure;
- Uncertain funding (late Farm Bill approval)
- Some combination of the above.

The silver lining to this news is that we have identified lack of renewal before the majority of contracts come up. A database query for contracts that have rental period ending in FY2015 returns 70 projects, more in the coming year than in all previous years. Additionally, the specific audience to target to determine why re-enrollment is declining is known. We know by district which contracts are due. Maryland (2011) has developed a specific brochure addressing CREP re-enrollment that may speed development of a Washington message to those landowners. In addition, Maryland does offer a re-enrollment bonus that may contribute to higher re-enrollment rates. Other funding mechanisms may not have been used effectively to date (e.g. Washington Recreation and Conservation Office authorization in 2009 to use Washington Wildlife and Recreation Program funds for CREP re-enrollment) and may be applied to change the observed trend.

Even though the program has experienced a decrease in contracts and associated metrics, it doesn't necessarily follow that these projects are not providing riparian and salmonid benefits. This analysis did not look at how many of the projects that are no longer under contract have been converted back to crops or are no longer providing riparian benefits. WSCC should poll Conservation District staff and landowners to determine ecologic impacts of expired CREP contracts.

Of secondary concern, the number of CREP contracts enrolled in FY2014 was much less than expected; the least in any year to date since 1999 (Figure 1). As noted, a combination of factors is suspected for the low participation level. Efforts to increase renewal participation will likely identify barriers that will also provide insight to barriers for new contracts. Future efforts to increase CREP participation will include targeted efforts to market CREP in areas of water quality concern; conducting monitoring and analysis to show the value-added benefits of CREP (waterfowl and wildlife benefits, benefits to aquatic species in addition to salmon, and economic values), in identifying obstacles and opportunities in geographic areas with low participation, and offering incentives for groups of contiguous landowners to implement the program, as demonstrated in Oregon.

Literature Cited

Canty, D. and H. Wiley. 2004. A characterization of Puget Sound Agriculture. Evergreen Funding Consultants, Seattle, Washington. 25 pp.

Maryland Department of Agriculture. 2011. Stay with CREP, Maryland's Conservation Reserve Enhancement Program: Answers to frequently asked questions about Re-enrolling in CREP. 4 pp.

Schueler, T.R. and H.K. Holland. 1994. The importance of imperviousness. *Watershed Protection Techniques* 1(3): 100-111. (Also published in *The Practice of Watershed Protection*)

Smith, C. 2013. 2013 implementation and effectiveness monitoring results for the Washington Conservation Reserve Enhancement Program (CREP): buffer performance and buffer width analysis. Washington State Conservation Commission, Olympia, WA. 28 pp.

USFWS and NMFS. 2000. Endangered Species Act - Section 7 Consultation. Biological Opinion. Washington Conservation Reserve Enhancement Program. NMFS log # WSB-99-462 and USFWS log # 1-3-F-0064.