CFLR Ecological Indicator Progress Report

Project Name: Deschutes Collaborative Forest Project (DCFP) **State: Oregon**

Reporting period FY10-14

Initial Landscape-scale Desired Conditions for the life of the project as defined by the Collaborative

Assumptions and Definitions:

- "Landscape Area" includes all NFS lands within the Deschutes Collaborative Forest Project (DCFP) Landscape, a total of 205,322 acres.
- The DCFP landscape was expanded in 2013; the original landscape included 130,000 acres, which was augmented through the 2013 DCFP proposal addendum resulting in a total landscape of 257,850 acres.
- The 2013 Addendum also updated all performance measure targets in the original 2009 Deschutes Skyline CFLR proposal.

Fire Regime Restoration

Desired Condition Statement for Fire Regime Restoration: Modeled ecological departure indicates that forest vegetation is restored to Vegetation Condition Class 1 with low fire hazard across 51% (105,183 acres) of the DCFP Landscape Area by 2024.

5-year (2014) Target for Fire Regime Restoration: 33% change (relative to the desired condition) occurs across 28% of the landscape area by 2014.

Expected progress toward Desired Condition:

- Good = Expected progress is being made towards Desired Conditions across >22% of the CFLR landscape area.
- Fair = Expected progress is being made towards Desired Conditions across 11-22% of the CFLR landscape area
- Poor = Expected progress is being made towards Desired Conditions across <11% of the CFLR landscape area

Fish and Wildlife Habitat Condition

Desired Condition Statement for Fish and Wildlife Habitat Condition (Vegetation): Modeled ecological departure indicates that forest vegetation is restored to Vegetation Condition Class 1 across 51% (105,183 acres) of the DCFP Landscape Area by 2024.

Desired Condition Statement Target for Fish and Wildlife Habitat Condition (Disturbance): Reduce disturbance to wildlife species by closing or decommissioning 25 (2.52%) miles of Level 2, 3, 4, or 5 roads within the Deschutes landscape by 2019.

5-year (2014) Target for Fish and Wildlife Habitat Condition (Vegetation): 33% change (relative to the desired condition) occurs across 28% of the landscape area by 2014.

5-year (2014) Target for **Fish and Wildlife Habitat Condition (Disturbance)*:*** 2.52% change (relative to the desired condition) occurs across 100% of the landscape area by 2019.

Expected progress toward Desired Condition:

- Good = Expected progress is being made towards Desired Conditions across 80-100% of the CFLR landscape area.
- Fair = Expected progress is being made towards Desired Conditions across 50-79% of the CFLR landscape area
- Poor = Expected progress is being made towards Desired Conditions across <50% of the CFLR landscape area

*The roads layer was updated from the original baseline resulting in more miles of known road on the landscape.

Watershed Condition

Desired Conditions Statement for Watershed Condition: Watershed Condition Framework indicates that 14 of the 17 subwatersheds (82% of the DCFP Landscape Area) are in Condition Class 1 (Properly Functioning) by 2024.

5-year (2014) Target for Watershed Condition: 85% change (relative to the desired condition) occurs across 82% of the landscape area by 2014.

Expected Progress toward Desired Condition:

- Good = Expected progress is being made towards Desired Conditions across 82% of the CFLR landscape area.
- Fair = Expected progress is being made towards Desired Conditions across 76% of the CFLR landscape area
- Poor = Expected progress is being made towards Desired Conditions across 70% of the CFLR landscape area

Invasive Species Severity

Desired Condition Statement for Invasive Species Severity: 9,800 acres (4.8%) of the landscape area was restored by reducing invasive species severity (preventing, controlling, or eradicating targeted invasive species) by 2019.

5-year (2014) Target for Invasive Species Severity: 2.4% of the landscape was restored by reducing invasive species severity to meet desired conditions by 2014.

Expected Progress toward Desired Condition:

- Good = Expected progress is being made towards Desired Conditions across 90-100% of the CFLR landscape area.
- Fair = Expected progress is being made towards Desired Conditions across 70-89% of the CFLR landscape area
- Poor = Expected progress is being made towards Desired Conditions across 0-69% of the CFLR landscape area
    - The scoring is based on the actual number of acres restored is at least 68% of the planned number of acres restored across the CFLR Landscape (6,647 acres of 9,800 acres have been treated to date).

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[1] Desired condition targets should be written in the above format. Desired conditions that feed each "desired condition target" may vary widely and may not apply to every project in the landscape. Keep in mind the above "desired conditions targets" and desired conditions are outcomes, not out puts. Each desired condition target should be over the same landscape. For example, if the Fire Regime Restoration desired condition target is over all of the National Forest System lands within the landscape, the other three desired conditions target should be as well. If the Fire Regime Restoration desired condition target is over all ownerships in the landscape, the others should be as well.

Scoring for National Reporting

Landscape-scale scoring

Few (if any) CFLR-funded Landscapes propose to meet every proposed desired condition on every acre or achieve landscape scale objectives through the mechanical treatment of every acre within their landscape boundary. Rather, multiple projects with multiple objectives (fire risk reduction, wildlife habitat improvement, stream restoration, etc) should facilitate meeting these broader objectives. Scoring at this level reflects the degree to which individual Landscapes are moving towards Desired Conditions at broader spatial extent. Landscape-scale scoring is conducted by the multi -party monitoring group at each Landscape.

Current Landscape-scale Evaluation (Based on the Collaborative's landscape scale monitoring)

Ecological Indicators	Datasets and/or databases of records used	Good, Fair, Poor and (%) landscape across which progress is being made towards desired conditions	Are you achieving your CFLRP objectives? (Y/N)	If NO, briefly explain…
Fire Regime Restoration	GNN, Landfire, FACTS	Fair	Yes	
Fish and Wildlife Habitat Condition	GNN, Landfire, FACTS GIS Roads Layer	Fair – See Fire Regime Restoration Poor** 21% of the total desired condition miles have been accomplished	Yes	
Watershed Condition	WCATT	Poor* 0% change*. Currently, 65% Properly Functioning; 35% Functioning at Risk	Yes	
Invasive Species	Natural Resource Information System (NRIS), FACTS	Good 2.6% of the landscape has been treated to date	Yes	

Landscape-scale Reporting Narrative:

Fire Regime Restoration

1L-1. What is the change in acres of forest successional classes for all PAGs and the ecological departure (condition class) of each PAG relative to its historic range of variability (HRV)?

The 2024 Desired Condition is to realize a net increase of 57,500 acres of forest in VCC1, or a 121% increase over the 2009 baseline acreage. This will mean a total of 105,183 acres of the DCFP Landscape Area will be in VCC1 by 2024. However, because much of 10 year Proposed Treatment Footprint is largely in the Ponderosa pine – Dry, Mixed Conifer - Warm/Dry, and Mixed Conifer - Cool/Moist biophysical settings (BpS), they will also be assessed individually to track progress in these specific forest types.

- Landscape: 10,250 ac increase in VCC1 = ***Fair***
- Ponderosa pine – Dry: 8,181 ac increase in VCC1 = ***Good***
- Mixed Conifer - Warm/Dry: 504 ac increase in VCC1 = ***Poor***
    - Although not accounted for in our goal of VCC1, 5,410 ac did move to a less departed state going from VCC3 to VCC2 showing progress.
- Mixed Conifer - Cool/Moist – Dry: 1,807 ac decrease in VCC1 = ***Poor***
    - The change for this BpS is unique to all the others, the rest show an increase in area within VCC1.

1L-2. What are the effects of restoration treatments on fire behavior and forest resilience to fire within ponderosa pine, dry mixed conifer, and moist mixed conifer PAGs at the landscape level?

The desired condition is to increase area with low wildfire hazard as a result of treatment.

- Landscape: 12,432 ac increase in low fire hazard = ***Fair (100 acres short of Good)***
- Ponderosa pine – Dry: 5,088 ac increase in low fire hazard = ***Fair (53 acres short of Good)***
- Mixed Conifer - Warm/Dry: 1,837 ac increase in low fire hazard = ***Good***
- Mixed Conifer - Cool/Moist – Dry: 2,951 ac increase in low fire hazard = ***Good***

Note: The final scoring was based on "averaging" the outputs for 1L-1 and 1L-2. Averaging is used loosely here, as the decision to assign a single "Fair" rating was based on the fact that 3 of 8 metrics were Good , 3 of 8 were Fair (although 2 of those 3 were extremely close to the threshold for Good), and 2 were Poor.

Fire Regime Restoration Scoring Framework:

Landscape:

- Good = 66-100% of expected progress across a >22% of the CFLR landscape (12,524-18,975 ac)
    - (33% * 66% = 21.78%) --> 22% * 57,500 ac = 12,524 ac
- Fair = 33-66% of expected progress across 11-22% of the CFLR landscape (6,262-12,524 ac)
    - (33% * 33% = 10.9 %) --> 11% * 57,500 ac = 6,262 ac
- Poor = 0-33% of expected progress less than <11% of the CFLR landscape (< 6,262 ac)

Biophysical setting (BpS) change is based on multiplying the above thresholds by the percentage of the landscape occupied by any particular BpS.

Ponderosa pine – Dry (41% of the landscape):

- Good = 66-100% of expected progress across >22% of the CFLR landscape (5,135-7,780 ac)
- Fair = 33-66% of expected progress across 11% of the CFLR landscape (2,567-5,135 ac)
- Poor = 0-33% of expected progress <11 % of the CFLR landscape (< 2,567 ac)

Mixed Conifer - Warm/Dry (13% of the landscape):

- Good = 66-100% of expected progress across >22% of the CFLR landscape (1,628-2,467 ac)
- Fair = 33-66% of expected progress across 11 % of the CFLR landscape (814-1,628 ac)
- Poor = = 0-33% of expected progress <11 % of the CFLR landscape (<814 ac)

Mixed Conifer - Cool/Moist – Dry (9% of the landscape):

- Good = 66-100% of expected progress across >22% of the CFLR landscape (1,127-1,708 ac)
- Fair = 33-66% of expected progress across 11 % of the CFLR landscape (564-1,127 ac)

- Poor = = 0-33% of expected progress <11 % of the CFLR landscape (<564 ac)

Fish & Wildlife Habitat Condition

2L-1. What is the change in acres of forest successional classes for all PAGs and the ecological departure (condition class) of each PAG relative to its historic range of variability (HRV)?

The 2024 Desired Condition is to realize a net increase of 57,500 acres of forest in VCC1, or a 121% increase over the 2009 baseline acreage. This will mean a total of 105,183 acres of the DCFP Landscape Area will be in VCC1 by 2024. However, because much of 10 year Proposed Treatment Footprint is largely in the Ponderosa pine – Dry, Mixed Conifer - Warm/Dry, and Mixed Conifer - Cool/Moist biophysical settings (BpS), they will be assessed individually to track progress in these specific forest types.

- Landscape: 10,250 ac increase in VCC1 = ***Fair***
- Ponderosa pine – Dry: 8,181 ac increase in VCC1 = ***Good***
- Mixed Conifer - Warm/Dry: 504 ac increase in VCC1 = ***Poor***
  - Although not accounted for in our goal of VCC1, 5,410 ac did move to a less departed state going from VCC3 to VCC2 showing progress.
- Mixed Conifer - Cool/Moist – Dry: 1,807 ac decrease in VCC1 = ***Poor***
  - The change for this BpS is unique to all the others, the rest show an increase in area within VCC1.

2L-2. What is the change in system road and trail densities?

Baseline data in 2011– 2.72 mi/mi^2.

- **2014 – Road density = 2.78 mi/mi^2. The roads layer has been updated resulting in a higher road density than the original baseline; however, we have better information for the landscape. Therefore, its not possible to determine what the % reduction is using the 2011 information.
- 5.2 miles of road have been decommissioned across the Deschutes landscape between 2010 and 2013 (21% of the total desired condition miles).

Watershed Condition

3L-1. What is the change in watershed condition score for all HUC 6 subwatersheds within the Landscape?

11 of 17 subwatersheds assessed as Properly Functioning resulting in a 0% net change from 2011; 2 subwatersheds improved to Properly Functioning and 2 went from Properly Functioning to Functioning at Risk due to an update in the roads database not because of work accomplished on the ground.

- The 2012 Pole Creek fire burned over 28,000 acres across 3 subwatersheds which affected the forest cover attribute shifting the rating to a Condition Class 3 but did not influence the total subwatershed score in WCF.
- Watershed restoration projects shifted indicator scores in a positive direction in the category of Physical Aquatic Components in WCF.
- Of the 9 watershed restoration projects currently identified for the CFLRA, 6 have been completed and 1 is partially complete. Two projects are scheduled for implementation in FY15.

Watershed Condition Scoring Framework

- The percentages reflect the number of watersheds that FS treatments can affect.
- 11 of 17 subwatersheds assessed as Properly Functioning resulting in a 0% net change from 2011; 2 subwatersheds improved to Properly Functioning and 2 went from Properly Functioning to Functioning at Risk due to an update in the roads database. *However, this change was due to new data and better information in the roads layer, not because of work that was accomplished on the ground.
- Of the 6 watersheds that are Functioning at Risk, it is estimated federal treatments will be able to influence 3 of the 6.
- 17 subwatersheds = 100%. Goal – 14 of 17 subwatersheds with rating of properly functioning (82%) of landscape.
- 2009 baseline – 11 of 17 subwatersheds in CC1 (65%)
- Expected progress targets towards desired condition is as follow:
  - 2014 – 12 of 17 subwatersheds at CC1 – 85% progress on 82% of landscape

        - 2019 – 13 of 17 subwatersheds at CC1 – 92% progress on 82% of landscape
        - 2024 – 14 of 17 subwatersheds at CC1 – 100% progress on 82% of landscape
    - Good, Fair, and Poor ratings based on:
        - 12 subwatersheds of 17 subwatersheds = 70%
        - 13 subwatersheds of 17 subwatersheds = 76%
        - 14 subwatersheds of 17 subwatersheds = 82%

Invasive Species Severity

4L-1a. How many acres of high-priority invasive plant infestations are treated across the landscape?

4L-2. What is the average percent reduction in invasive plan density across all treated areas?

Approximately 6,647 acres (68% of project goal) of invasive plant populations were treated across the DCFP landscape resulting in an average reduction of 83.8% in invasive plant density from 2010-2014.

- The desired outcome for invasive species by 2014 was 2.4% of the landscape restored and at this time 2.6% of the Deschutes landscape has been restored.

Project-scale scoring[2]

Each management action funded through CFLR will have its own project-level objectives that are designed to contribute to achieving Desired Conditions at larger scales. Project-scale scoring should reflect how well the results of an individual management activity met the objectives for that project. Individual projects may not meet every desired condition of the CFLRP project. Project-scale scoring is conducted following completed management activities by the multi -party monitoring group at each Landscape.

- Good = 75% or more of implemented treatments result in measurable progress towards individual ***project-level*** objectives.
- Fair = 26% - 74% of implemented treatments result in measurable progress towards individual ***project-level*** objectives.
- Poor = 25% or less of implemented treatments result in in measurable progress towards individual ***project-level*** objectives.

Current Project-scale Evaluation (Based on and aggregation of the Collaborative's project level monitoring)

Ecological Indicators	Datasets and/or databases of records used	Project Level Good, Fair, Poor and (%) treatments resulting in measurable progress as defined above	Are you achieving your CFLRP objectives? (Y/N)	If NO, briefly explain…
Fire Regime Restoration	GNN, Landfire, FACTS	Good	Yes	
Fish and Wildlife Habitat Condition	LiDAR, GIS	Good 93% of aspen stringer meadow treated.	Yes	
Watershed Condition	Project Workplan, WIT, Various agency databases	Fair 70% project accomplishment	Yes	
Invasive Species	NA	NA	NA	NA

Project-scale Reporting Narrative:

Fire Regime Restoration

Glaze Forest Restoration, SAFR, and West Tumbull projects are being assessed.

- The percent of the landscape being treated and the scoring percentages were used to determine each rating.
- Glaze Forest Restoration treatments resulted in a 33% reduction in potential flame length and a 29% reduction in potential crown fire activity within the project area – ***FAIR***
- SAFR treatments resulted in a 23% reduction in potential flame length and a 27% reduction in potential crown fire activity within the project area – ***GOOD***
- West Tumbull treatments resulted in a 25% reduction in potential flame length and a 15% reduction in potential crown fire activity within the project area – ***GOOD***

Wildlife

The Glaze Forest Restoration project is being assessed.

- 121 acres of open meadow habitat
- 60 acres of aspen stringer meadow habitat
- 56 of 60 acres treated and improved (93%)

Watershed Condition

Whychus Floodplain is the project being assessed.

- Whychus Creek is home to anadromous steelhead trout and spring Chinook salmon; efforts are underway to reintroduce these species to the Whychus watershed above the Pelton Round Butte Dams.
- Whychus Creek has a flashy flow regime and a history of flooding both on private and public lands.
- Accomplishments as of 2014 – 170 acres of riparian area improved and floodplain reconnected, 2 miles of stream restored, and 13 miles of fish passage from barrier dam removal.
- Of the 9 watershed restoration projects currently identified for the CFLRA, 6 have been completed and 1 is partially complete. Two projects are scheduled for implementation in FY15.

[2] An individual activity might not need to lead to a fully restored acre (for example), but if it sets the landscape up for the next treatment it may still get a good rating. For example if a successful thinning doesn't restore a fire regime, but it sets up landscape for subsequent burns that might, it could still recieve a "good" rating.