Final report: Application of LandTrendr results to NCCN Landscape Dynamics
Monitoring
A Cooperative agreement between Oregon State University and the National Park
Service for the period 5/15/2010 to 2/1/2012
Task agreement: J8W07100011
Cooperative agreement: H8W07110001
OSU PI and report author: Robert E Kennedy

June 29, 2012

The purpose of this award was to collaboratively develop methods to use a satellite-
based change detection approach (LandTrendr) to aid in landscape monitoring in
the parks of the North Coast and Cascades Network of National Parks.

During the two phases of the award (an original agreement and one modification in
2011), Oregon State University (OSU) worked with collaborators in the NCCN to
improve methods of identifying and attributing the cause of landscape change.
These maps of change were developed by OSU, tested at North Cascades National
Park, improved and iteratively updated.

The core methodology hinged on the use of the statistical technique known as
Random Forests. OSU and NPS successfully transferred implementation of this
technique to the NCCN staff and tested the results at North Cascades National Park
in 2011.

The methodology for mapping change will continue to be used in ongoing
monitoring of landscape change in the parks.