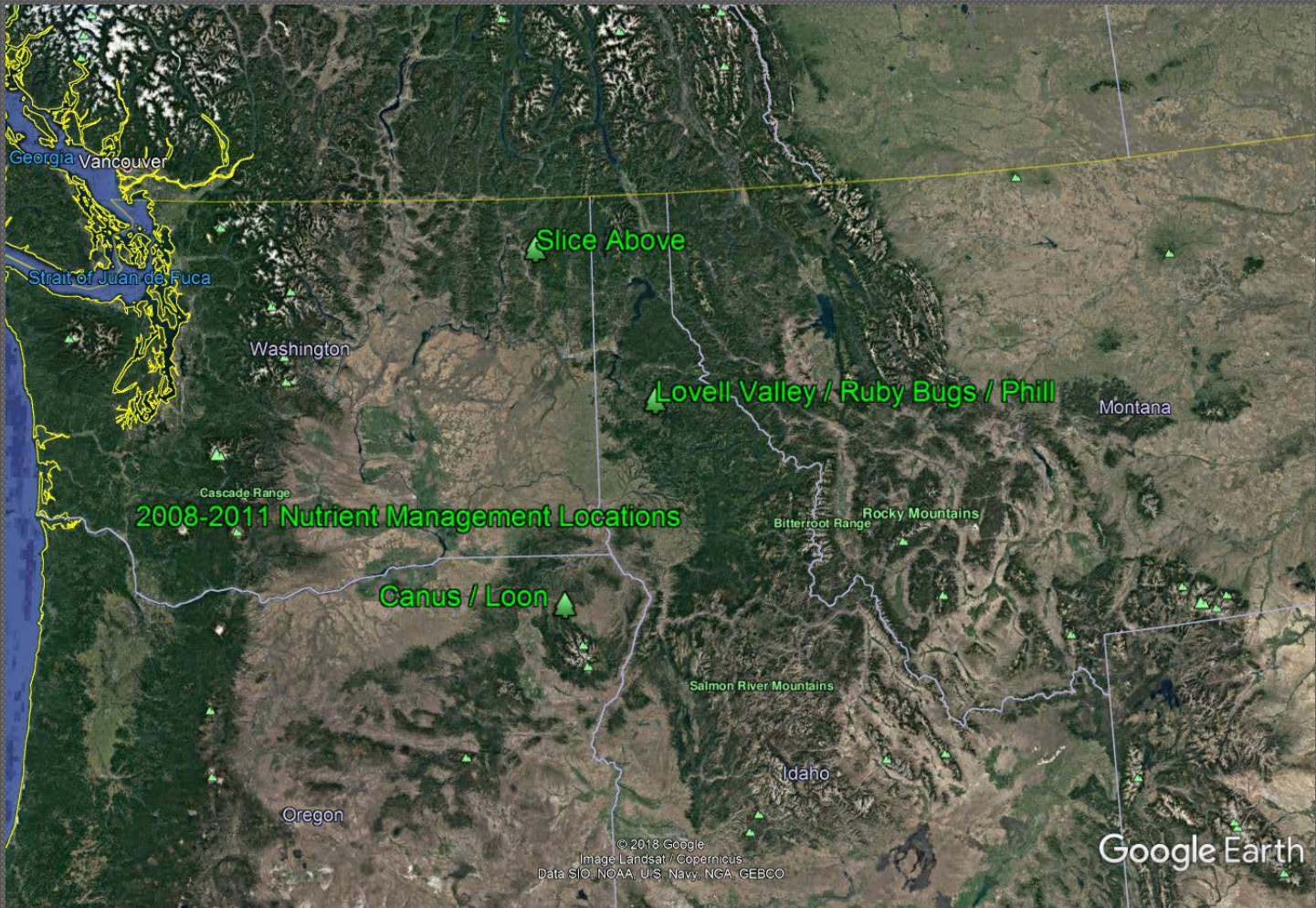


# Nutrient Management Study Sites



# Nutrient Management Study Sites

## Treatments:

- **Bole Only - High Slash Retention**
- **Whole Tree – Low Slash Retention**
- **Vegetation Control**

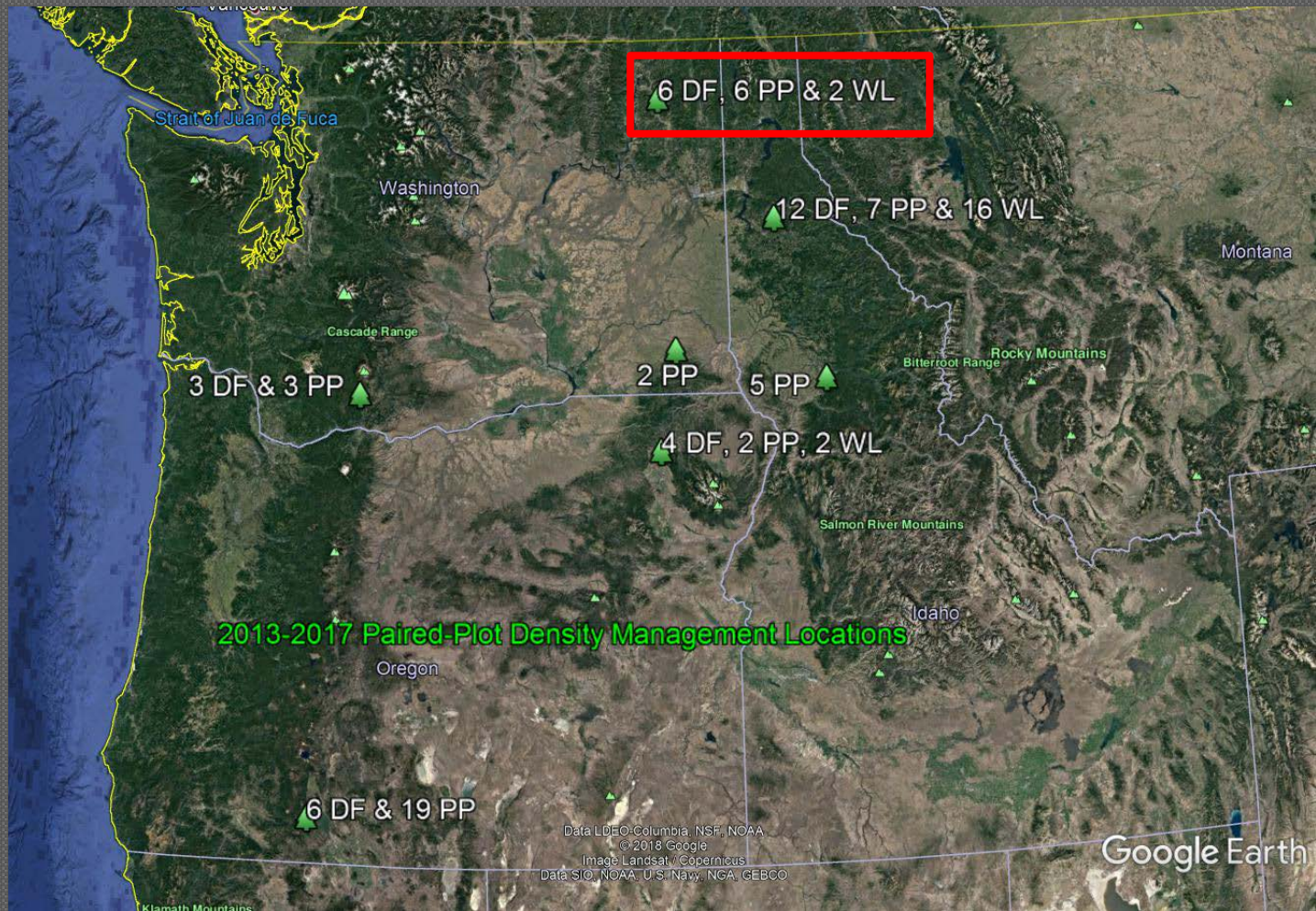
## Site Quality:

- **Higher Quality – Basalt (Good Soil Productivity)**
- **Lower Quality – Quartzite (Poor Soil Productivity)**

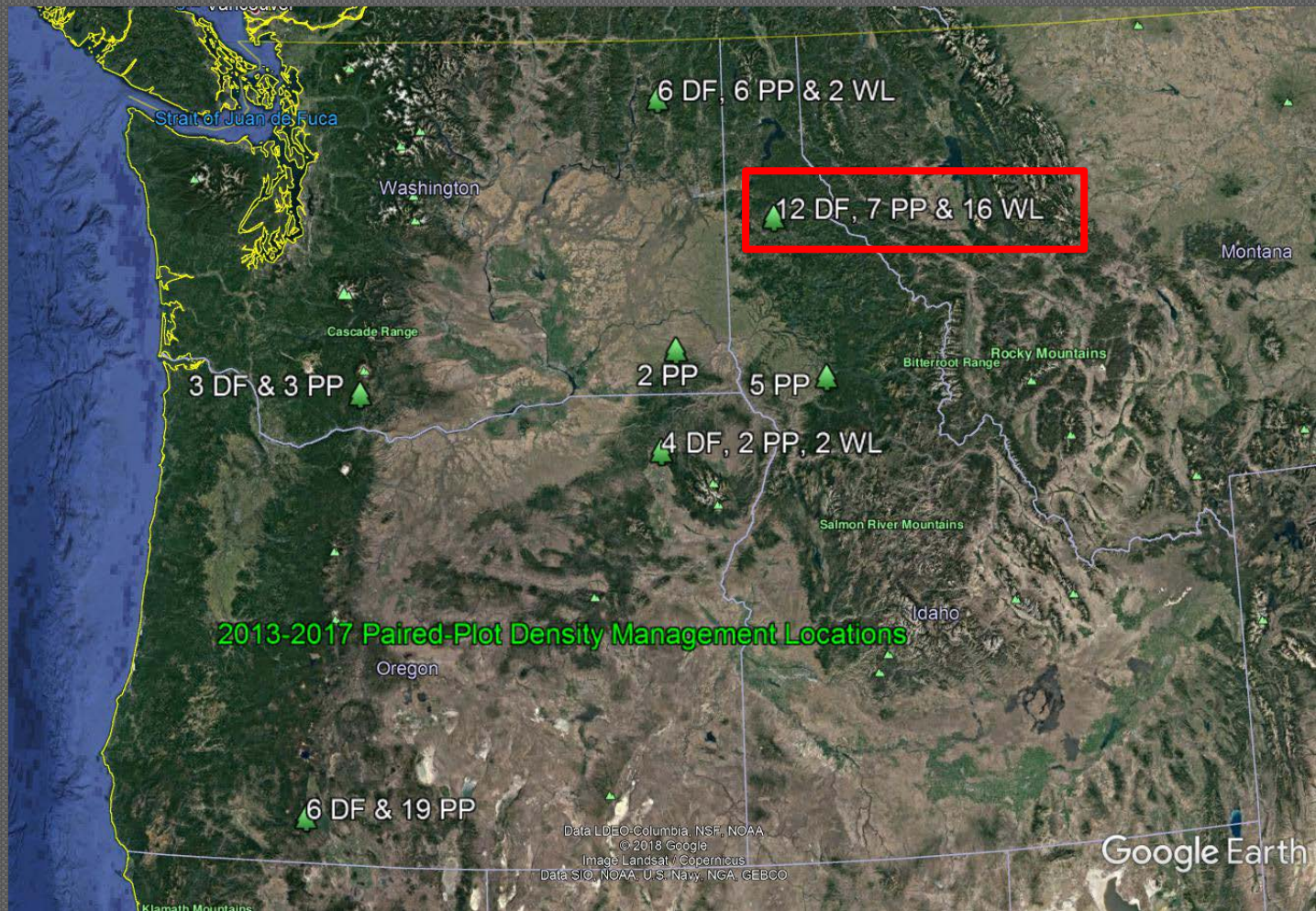
Location	Established	Site Quality	Soil Parent Material	2017 Seedling Measurement Period
Canus	2008	High	Basalt	5th Completed 2014 10-Year occurs in 2019
Phill	2010	High	Basalt	4th
Loon	2011	High	Basalt	5th
Lovell	2009	Low	Quartzite	5th Completed 2015 10-Year occurs in 2020
Ruby	2009	Low	Quartzite	5th Completed 2016 10-Year occurs in 2021
Slice	2010	Low	Quartzite	5th Completed 2016 10-Year occurs in 2021

# Site Type Initiative

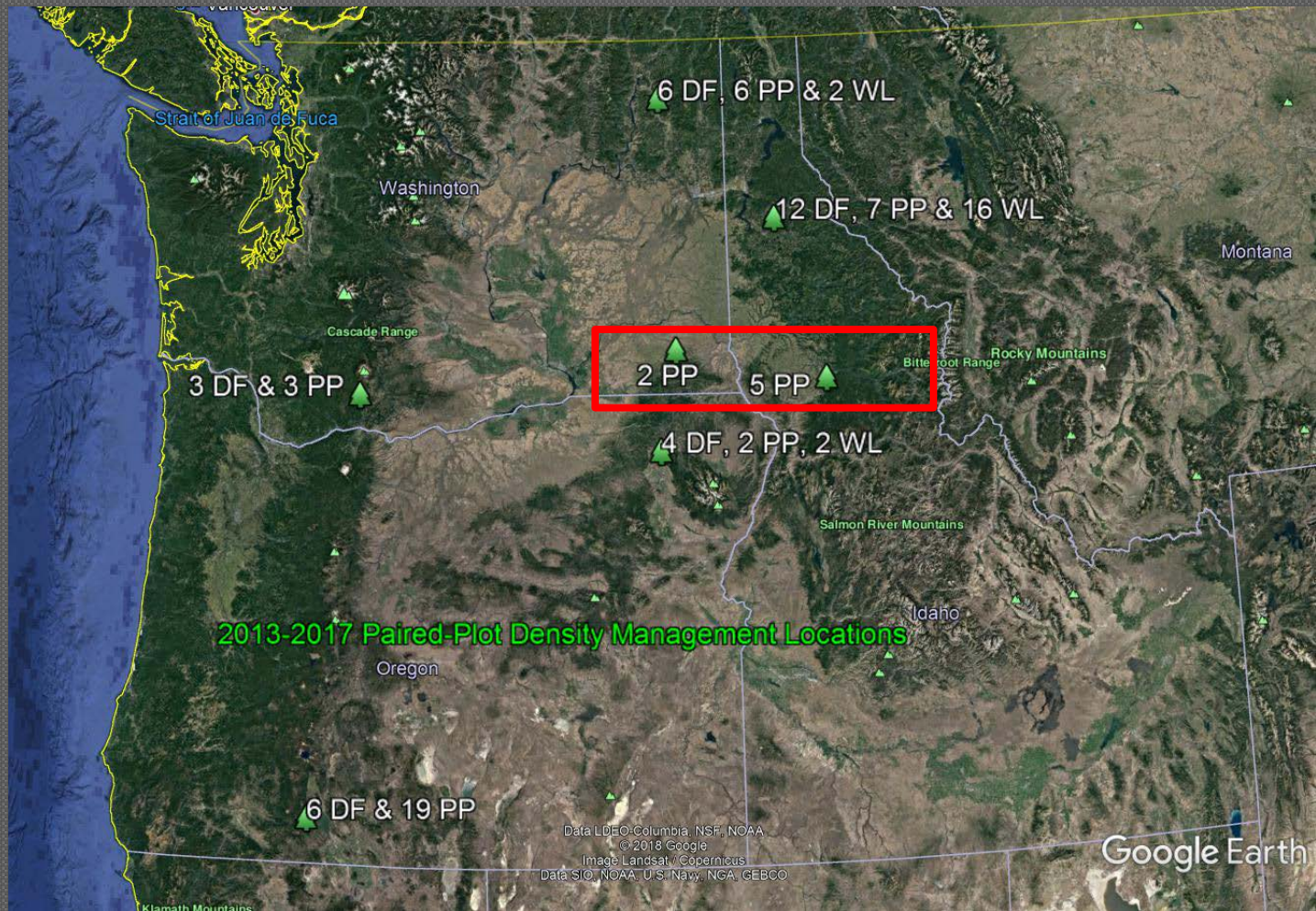
## Paired Plot Density Management (PPDM) Trials



# Site Type Initiative Paired Plot Density Management (PPDM) Trials



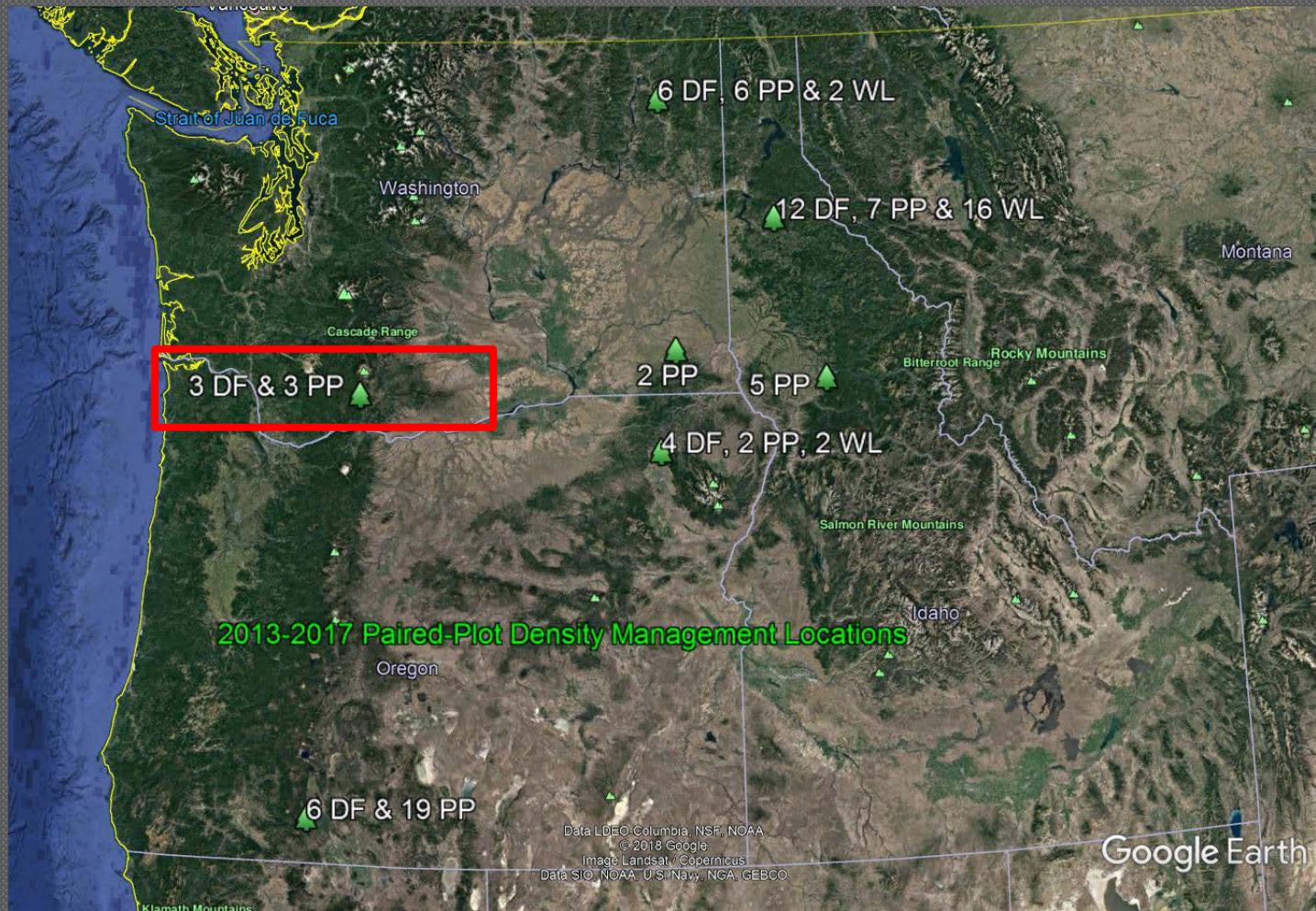
# Site Type Initiative Paired Plot Density Management (PPDM) Trials



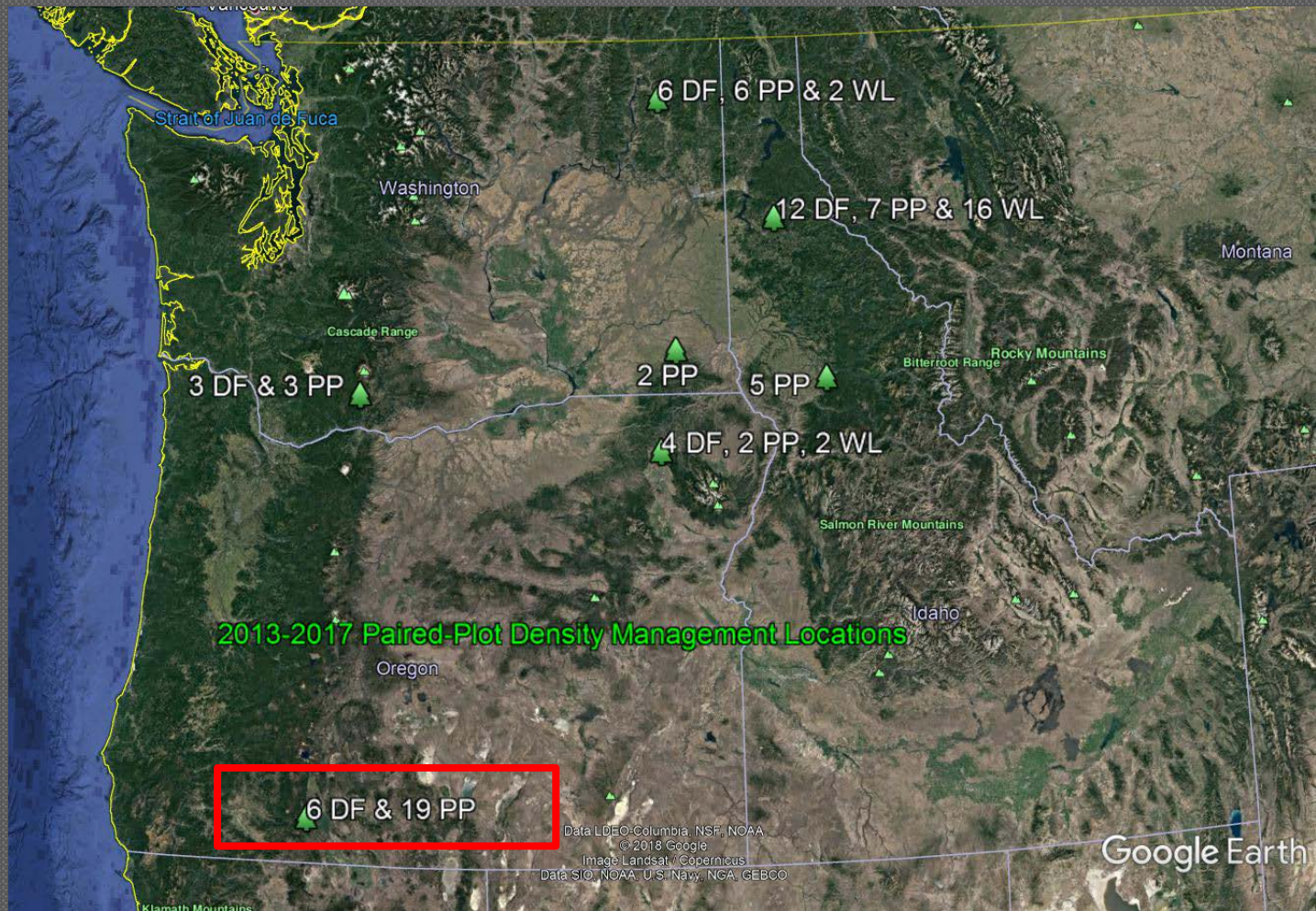
# Site Type Initiative Paired Plot Density Management (PPDM) Trials



# Site Type Initiative Paired Plot Density Management (PPDM) Trials



# Site Type Initiative Paired Plot Density Management (PPDM) Trials

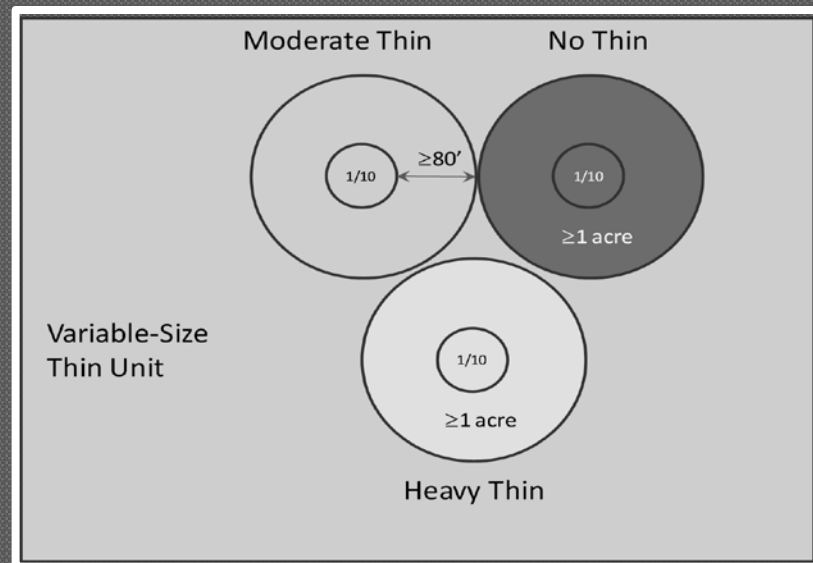
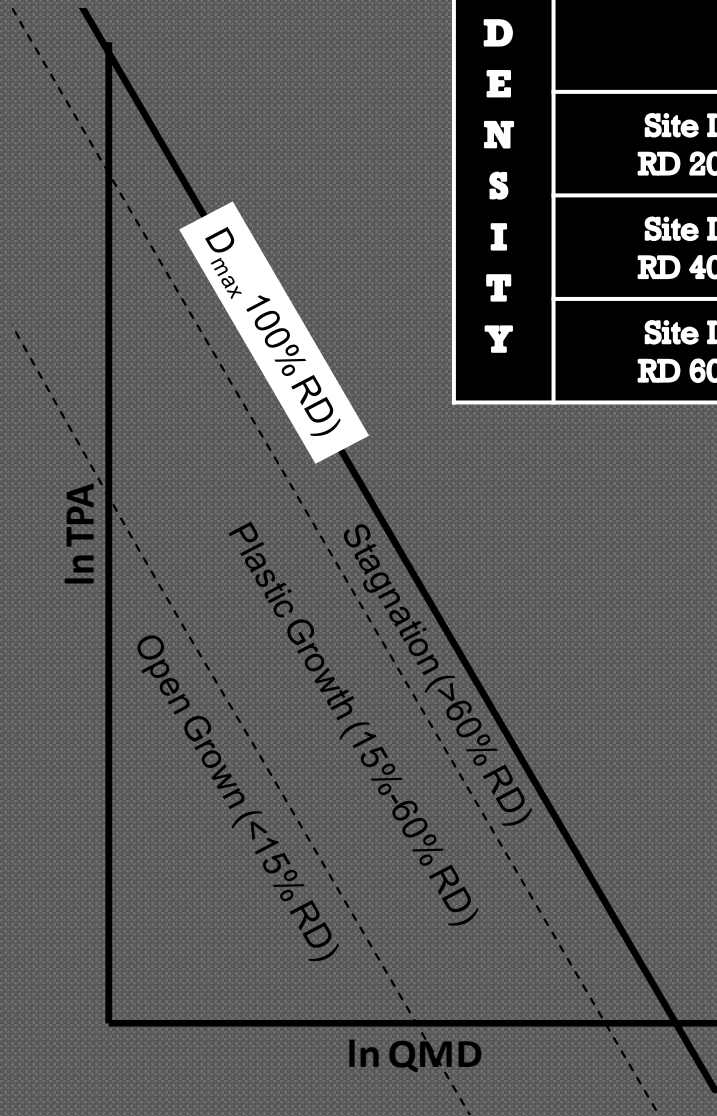




# IFC Site Type Initiative

## Phase II: Paired Plot Density Management Trials

D E N S I T Y	PRODUCTIVITY			
	Site I RD 20	Site II RD 20	Site III RD 20	Site IV RD 20
	Site I RD 40	Site II RD 40	Site III RD 40	Site IV RD 40
	Site I RD 60	Site II RD 60	Site III RD 60	Site IV RD 60



# IFC Site Type Initiative

## Phase II: Paired Plot Density Management Trials

### 31 Ponderosa Pine Sites

	<b>Site I</b> <b>10YR <math>\leq</math> 18'</b>	<b>Site II</b> <b>19' <math>\geq</math> 10YR <math>\leq</math> 22'</b>	<b>Site III</b> <b>23' <math>\geq</math> 10YR <math>\leq</math> 26'</b>	<b>Site IV</b> <b>10YR <math>\geq</math> 27'</b>
<b>RD <math>\leq</math> 35</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>4</b>
<b>36 <math>\geq</math> RD <math>&lt;</math> 60</b>	<b>3</b>	<b>5</b>	<b>5</b>	<b>1</b>
<b>RD <math>\geq</math> 60</b>	<b>0</b>	<b>1</b>	<b>3</b>	<b>2</b>

### 44 Ponderosa Pine Sites

	<b>Site I</b> <b>10YR <math>\leq</math> 18'</b>	<b>Site II</b> <b>19' <math>\geq</math> 10YR <math>\leq</math> 22'</b>	<b>Site III</b> <b>23' <math>\geq</math> 10YR <math>\leq</math> 26'</b>	<b>Site IV</b> <b>10YR <math>\geq</math> 27'</b>
<b>RD <math>\leq</math> 35</b>	<b>4</b>	<b>6</b>	<b>3</b>	<b>1</b>
<b>36 <math>\geq</math> RD <math>&lt;</math> 60</b>	<b>7</b>	<b>7</b>	<b>3</b>	<b>0</b>
<b>RD <math>\geq</math> 60</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>0</b>

# IFC Site Type Initiative

## Phase II: Paired Plot Density Management Trials

### 20 Western Larch Sites

	<b>Site I</b> <b>10YR <math>\leq</math> 18'</b>	<b>Site II</b> <b>19' <math>\geq</math> 10YR <math>\leq</math> 22'</b>	<b>Site III</b> <b>23' <math>\geq</math> 10YR <math>\leq</math> 26'</b>	<b>Site IV</b> <b>10YR <math>\geq</math> 27'</b>
<b>RD<sup>1</sup> <math>\leq</math> 35</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>2</b>
<b>36 <math>\geq</math> RD <math>&lt;</math> 60</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>1</b>
<b>RD <math>\geq</math> 60</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>

# Self-thinning boundary models for conifer stands across the Inland Northwest, USA

Mark J. Kimsey, Jr., Coleman, M., Shaw, T.

## 1. Introduction

Stand density is a key component in the development and sustainability of a healthy and productive forest. Overstocked stands are susceptible to wildfire during drought and/or insect and disease outbreaks due to intense inter-tree competition for limited site resources (light

nutrients, water). Conversely, forest stands that are understocked, either by management prescription or by natural disturbances, are underutilizing site resources. In either case, the same question will always arise: what defines a stand stocking limit as it relates to site resources and species composition?

