LANDFIRE Product Assessment:
Western Milestone Super Zone Analysis and Report

Introduction

The interagency LANDFIRE project worked to produce quality products from available data sets. The approach LANDFIRE adopted in this assessment through the Product Quality Control and Assessment Plan (PQCA Plan) and in all of its reports is full disclosure of all pertinent information concerning the quality of the LANDFIRE products. The project completed a Western Milestone Agreement Assessment which examined the overall agreement for the West at a summary level by Super Zone. This report is a follow-up to that report providing additional detail for individual super zones and mapped classes. The reader is advised to download and read that report at www.landfire.gov for important context information.

What follows is a report of the outcomes of the Western Milestone product quality assessment process for the LANDFIRE National Environmental Site Potential (ESP) and Existing Vegetation Type (EVT), Canopy Fuels and Fire Behavior Fuel Model (FBFM) spatial products. The purpose of this report is to provide as much information as possible to potential users to support the analysis and application of certain LANDFIRE National products, such as:

- a general understanding of the quality and characteristics of certain products, and
- information that will help users apply the data appropriately, or understand how they might have to adjust the data to utilize it locally.

The LANDFIRE Product Quality Team is responsible for this report and for defining, coordinating and conducting the product quality assessment procedures. Please contact the LANDFIRE Help Desk (helpdesk@landfire.gov) with any questions or issues, and we will respond as quickly as we can. For more information on the Product Quality Team and the procedures used, please review the material available at www.landfire.gov/products_dataquality.php.

Assessment Process

The products included in this report can be directly assessed because they are modeled directly from geo-referenced field plots contained in the LANDFIRE Reference Data Base (LFRDB). However, we could not use the same procedure to analyze the canopy fuel measures (canopy bulk density and canopy base height) because of the lack of plots available for canopy fuels model development, and because a different modeling procedure was utilized to develop these products. The assessment process evaluated the agreement between the mapped LANDFIRE products and hold-out plots. Because there are always numerous issues with the holdout plots, such as total sample size, plot

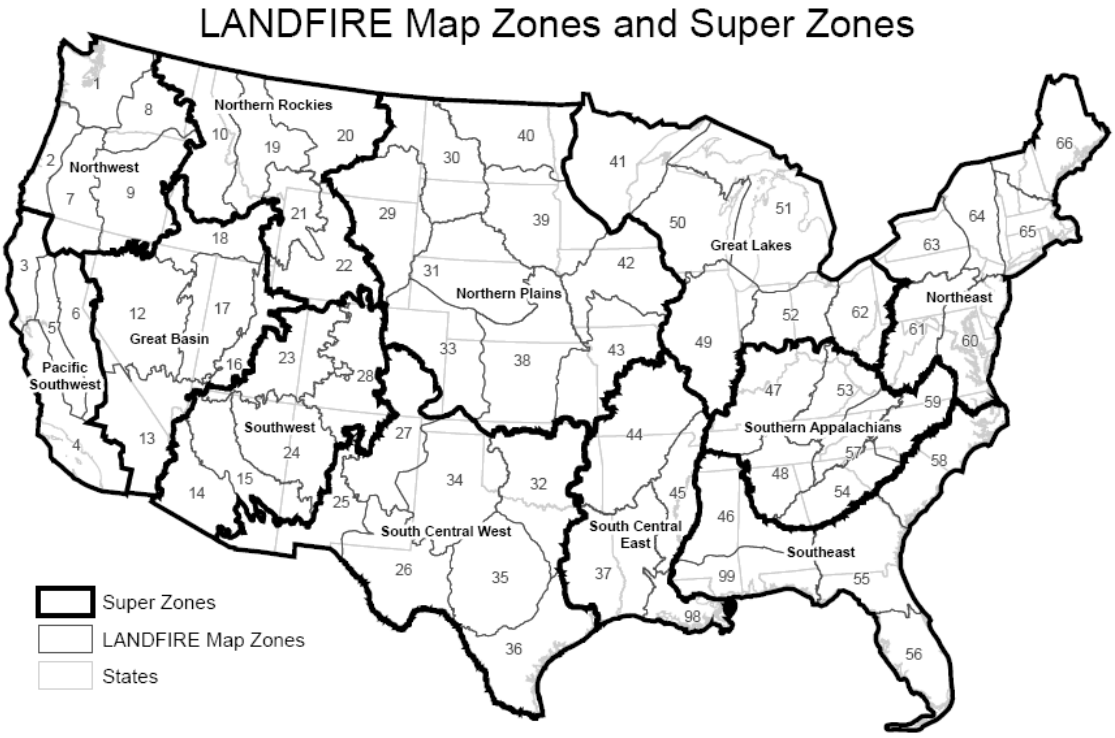
classification methodology, variable plot quality, etc., we chose to use the term “agreement” rather than “accuracy”. This distinction is common in the literature

ESP and EVT

A 2% systematic areal sample of 3 km by 3 km blocks was used to select the holdout sample of LFRDB plots that formed the foundation of the assessment process for ESP and EVT. Every holdout plot was attributed with a “Reference” Ecological System using an automated sequence table process, and compared to the corresponding value from the LANDFIRE product. Results were summarized in standard contingency tables.

Even with the tens of thousands of plots that comprise the LFRDB, the geographic distribution and number of plots available in the 2% holdout sample presented problems (see “PQCA Plan” on this webpage for more detail on the sample design). Some map zones had few plots (even though the holdout sample was a systematic geographic design), and within every individual map zone the less commonly occurring map classes had no holdout sample plots selected. Because the sample size of holdout plots was not adequate to support precise estimates of agreement at the map zone level, map zones were aggregated into geographic groups known as Super Zones (Figure 1).

Figure 1: LANDFIRE Agreement Assessment Super Zones



Individual Map Zone Results

Individual map zone contingency tables will be provided as a separate product at a later date, but users are **strongly cautioned** against using individual map zone

results because of sample size and sample distribution issues which severely limit the inferences that can be reliably made from them. Individual map zone results may be interesting and useful to researchers, but probably not to LANDFIRE National (LFNA) product users.

Canopy Fuels

Canopy Fuels cross-validation statistics will be reported at the individual map zone level only because combining cross-validation statistics for individual map zones would be difficult, and the resulting inferences would be confusing and not informative.

5x5 Spatial Assessment

To examine the potential impact on the agreement estimates attributable to spatial mis-registration between the mapped product and the reference information, we also evaluated agreement based on the map classification within the 5x5 spatial window centered around the reference plot location. In the LFNA agreement process, we compared the mode of the map data in the 5 pixel by 5 pixel spatial window to the holdout plot reference classification (corresponding to the center pixel in the window) for both EVT and ESP.

Agreement Metrics

Standard agreement metrics were utilized in the LFNA assessment, namely Overall Agreement, Producer Agreement and User Agreement. Overall agreement is the percentage of total reference plots that had the same map and reference class. Producer Agreement is the percentage of holdout plots in Class "i" that were mapped as Class "i". User Agreement is the percentage of holdout plots mapped as Class "i" that actually are Class "i" plots in the reference data. Full contingency tables can be examined to identify specific disagreements between classes, often resulting in a more thorough understanding about the types of error, not just the quantity. Refer to the summary tables below for specific examples of each metric.

Assessment Notes

The LFNA agreement assessment process will eventually be one of the largest such processes ever conducted. The LANDFIRE project is large, and the issues are numerous. The purpose of this section of the report is to provide information that will help readers understand potential issues with the assessment results, and ultimately to help LFNA product users apply the results of the assessments appropriately.

<u>Holdout Sample Size and Distribution</u>

- At the map zone level, the sample size in many map classes is too small to permit reliable (precise) class-specific estimates of agreement. Consequently, LFNA Super Zones are the most appropriate level of analysis for the agreement results below the milestone level.

- Even at the Super Zone level, the sample sizes for the less common map classes are still often quite small, and a significant number of map classes have no sample plots. Accordingly, many of the class-specific estimates of agreement at the Super Zone level are not precise.
- Users are strongly urged to pay attention to sample sizes, and use that information when applying the agreement results.

Class Specific Agreement

- Agreement assessments are based on comparisons between mapped values of ESP or EVT at specific locations and the corresponding values assigned to holdout plots in the reference database (i.e., reference values) at the same locations, based on field information.
- Class specific agreement values for classes with low sample size are suspect and unreliable. For example, a class with 2 samples has only 3 possible agreement values: 0%, 50% and 100%. Because of the aggregate sample size and sample distribution among classes, there are many such situations. In this summary report, we do not include information for any particular Super Zone about classes that had fewer than 5 holdout samples.
- Ecological Systems are at times difficult to classify on the ground and on imagery since they are "systems" not "cover types". They are not necessarily mutually exclusive and they tend to grade from one system to another on the ground, resulting in lower agreements when assessed quantitatively. Evaluating the agreement of NatureServe "Similarity Classes" rather than raw Ecological Systems partially addresses this source of confusion.
- Holdout plots are the best way to evaluate product quality, but they do have limitations. These limitations do not invalidate the agreement assessment, but they should be understood and factored into user inferences.
    - Some holdout plots are relatively old (20-30 years) but still passed basic imagery QA/QC (no major canopy change seen). It is possible that non-agreement is due to plot changes over the time lag.
    - Reference values of EVT and ESP are largely assigned to holdout plots using an automated process, based on the vegetation composition data associated with the plots. This process could have errors that are translated into the map and/or the agreement assessment.
    - All plots used in LANDFIRE were geo-referenced (most with GPS), but there is considerable variation in the quality of the final location. Mis-registrations between the LFNA product and the plot location would reduce agreement estimates.

Crosswalks

Crosswalks to other classification units can facilitate evaluation of mapping results at different levels of thematic resolution and provide additional insight to users about how LFNA products can be applied. To that end, we incorporated the following crosswalks into the agreement assessment process:

- *NatureServe Similarity Classes*: Developed independently by NatureServe, these classes represent one level of aggregation of Ecological Systems. The aggregation is primarily based upon ecological similarity, but geography was also considered so that the same species that occurs in widely different geographic locations would not be aggregated.
- *SAF/SRM Types*: A cross-walk was developed by Missoula Fire Science Laboratory personnel between Ecological Systems and standard Society of American Foresters and Society for Range Management cover types. Since these classes represent cover types, we did not perform this assessment or create an SAF/SRM crosswalk for ESP.
- *SAF/SRM Type Groups*: A second level of aggregation of SAF/SRM cover types intended to represent higher groups of vegetation (again, EVT only).
- *Life Forms*: For the same reasons as above, this crosswalk and analysis were performed for EVT only.

Crosswalks are imperfect and often subjective, so we do not recommend that LFNA EVT or ESP maps be recoded to these cross-walked classification units. If LFNA products are recoded against recommendations, our concern is that users will not remember that LFNA did not map those types directly, and that downstream users will not know or understand the genesis of the product they are using. Specific crosswalks used in the LFNA analysis will be available for download at the same web location as this report in the near future.

Assessment Results

On the pages that follow, tables summarizing the agreement results for each product in each Super Zone are provided. Information contained in these tables includes, by class:

- LFRDB Plots – The number of holdout plots identified as class “i” in the LANDFIRE Reference Data Base.
- Mapped Plots – The number of holdout plots mapped as class “i”.
- Plots with Agreement – The number of holdout plots in class “i” ” that were mapped as Class “i”.
- Producer Agreement – The percentage of holdout plots in class “i” that were mapped as Class “i”. Calculated as: (Plots with Agreement) / (LFRDB Plots) * 100.
- User Agreement – The percentage of holdout plots mapped as class “i” that are identified as class “i” in the reference database. Calculated as: (Plots with Agreement) / (Mapped Plots) * 100.
- LFRDB Percent - Percentage of all holdout plots in the Super Zone that are identified as class “i” in the reference database. Calculated as: (LFRDB Plots) / (Total number of holdout plots) * 100.

- Mapped Percent – Percentage of all holdout plots in the Super Zone that were mapped as class “i”. Calculated as: (Mapped Plots) / (Total number of holdout plots) * 100.
- DIFF – The difference between Mapped Percent and LFRDB Percent. Calculated as: Mapped Percent – LFRDB Percent.
    - If this number is positive, then there is more area of the class in the map than in the plot database (as indicated by mapped values at holdout point locations); i.e. – a sample from holdout plot locations suggests that it may be over-mapped.
    - If this number is negative, then there is less area of the class in the map than in the plot database (as indicated by mapped values at holdout plot locations); i.e. – a sample from holdout plot locations suggests that it may be under-mapped.
    - The value of this number suggests the degree to which the class may be over- or under-mapped.

The tables below are intended to be class-specific summaries of agreement within each Super Zone. They are all sorted by number of LFRDB plots in descending order to put those classes most likely to occupy the bulk of the landscape at the top of the table. Also, as noted above, cases with fewer than 5 LFRDB plots are omitted from these tables. Full contingency tables for each Super Zone can be downloaded at the same web location as this report for users interested in viewing the full assessment data. Full contingency tables can further be examined to identify specific disagreements between classes, often resulting in a more thorough understanding about the types of error, not just the quantity. Users interested in a broader level summary are encouraged to download and review the LANDFIRE National Western Milestone Agreement Summary Report, which is a summary of overall agreement by LFNA Super Zone.

Great Basin (Map Zones 12, 13, 16, 17, 18)

Table 1: Great Basin Super Zone Summary for Existing Vegetation Type-Ecological Systems

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Great Basin Pinyon-Juniper Woodland	2019	84	79	65	77.4%	82.3%	12.5%	11.7%	-0.7%
Inter-Mountain Basins Big Sagebrush Shrubland	2080	77	94	46	59.7%	48.9%	11.4%	14.0%	2.5%
Colorado Plateau Pinyon-Juniper Woodland	2016	36	31	28	77.8%	90.3%	5.3%	4.6%	-0.7%
Introduced Upland Vegetation - Annual and Biennial Forbland	2183	34	18	12	35.3%	66.7%	5.0%	2.7%	-2.4%
Inter-Mountain Basins Mixed Salt Desert Scrub	2081	33	72	14	42.4%	19.4%	4.9%	10.7%	5.8%
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	2087	33	29	23	69.7%	79.3%	4.9%	4.3%	-0.6%
Artemisia tridentata ssp. vaseyana Shrubland Alliance	2220	32	26	15	46.9%	57.7%	4.8%	3.9%	-0.9%
Rocky Mountain Aspen Forest and Woodland	2011	29	35	24	82.8%	68.6%	4.3%	5.2%	0.9%
Great Basin Xeric Mixed Sagebrush Shrubland	2079	27	35	7	25.9%	20.0%	4.0%	5.2%	1.2%
Inter-Mountain Basins Big Sagebrush Steppe	2125	27	27	9	33.3%	33.3%	4.0%	4.0%	0.0%
Inter-Mountain Basins Greasewood Flat	2153	24	26	11	45.8%	42.3%	3.6%	3.9%	0.3%
Mojave Mid-Elevation Mixed Desert Scrub	2082	23	20	10	43.5%	50.0%	3.4%	3.0%	-0.5%
Inter-Mountain Basins Sparsely Vegetated Systems	2001	16	2	2	12.5%	100.0%	2.4%	0.3%	-2.1%
Columbia Plateau Steppe and Grassland	2123	16	13	5	31.3%	38.5%	2.4%	1.9%	-0.5%
Introduced Upland Vegetation - Annual Grassland	2181	14	8	3	21.4%	37.5%	2.1%	1.2%	-0.9%
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	2061	13	12	7	53.9%	58.3%	1.9%	1.8%	-0.2%
Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland	2062	13	17	9	69.2%	52.9%	1.9%	2.5%	0.6%
North American Warm Desert Sparsely Vegetated Systems	2004	12	17	6	50.0%	35.3%	1.8%	2.5%	0.7%
Southern Rocky Mountain Ponderosa Pine Woodland	2054	12	10	9	75.0%	90.0%	1.8%	1.5%	-0.3%
Inter-Mountain Basins Semi-Desert Grassland	2135	11	4	0	0.0%	0.0%	1.6%	0.6%	-1.0%
Rocky Mountain Lower Montane-Foothill Shrubland	2086	9	1	0	0.0%	0.0%	1.3%	0.2%	-1.2%

Inter-Mountain Basins Montane Sagebrush Steppe	2126	9	8	4	44.4%	50.0%	1.3%	1.2%	-0.2%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	2055	8	6	5	62.5%	83.3%	1.2%	0.9%	-0.3%
Sonoran Paloverde-Mixed Cacti Desert Scrub	2109	7	2	1	14.3%	50.0%	1.0%	0.3%	-0.7%
Inter-Mountain Basins Semi-Desert Shrub-Steppe	2127	6	2	0	0.0%	0.0%	0.9%	0.3%	-0.6%
Quercus gambelii Shrubland Alliance	2217	6	4	4	66.7%	100.0%	0.9%	0.6%	-0.3%
Inter-Mountain Basins Subalpine Limber-Bristlecone Pine Woodland	2020	5	0	0	0.0%		0.7%	0.0%	-0.7%
Inter-Mountain Basins Montane Riparian Systems	2154	5	11	1	20.0%	9.1%	0.7%	1.6%	0.9%
North American Warm Desert Riparian Systems	2155	5	9	4	80.0%	44.4%	0.7%	1.3%	0.6%

Total number of holdout plots = 674; Total number of holdout plots with agreement = 335; Overall agreement = 49.7%

Table 2: Great Basin Super Zone Summary for Existing Vegetation Type-Ecological Systems, 5x5 Spatial Window

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Great Basin Pinyon-Juniper Woodland	2019	84	87	66	78.6%	75.9%	12.5%	13.0%	0.5%
Inter-Mountain Basins Big Sagebrush Shrubland	2080	77	99	49	63.6%	49.5%	11.5%	14.7%	3.3%
Colorado Plateau Pinyon-Juniper Woodland	2016	35	34	28	80.0%	82.4%	5.2%	5.1%	-0.2%
Introduced Upland Vegetation - Annual and Biennial Forbland	2183	34	16	12	35.3%	75.0%	5.1%	2.4%	-2.7%
Inter-Mountain Basins Mixed Salt Desert Scrub	2081	33	78	16	48.5%	20.5%	4.9%	11.6%	6.7%
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	2087	33	31	25	75.8%	80.7%	4.9%	4.6%	-0.3%
Artemisia tridentata ssp. vaseyana Shrubland Alliance	2220	32	23	12	37.5%	52.2%	4.8%	3.4%	-1.3%
Rocky Mountain Aspen Forest and Woodland	2011	29	34	18	62.1%	52.9%	4.3%	5.1%	0.7%
Great Basin Xeric Mixed Sagebrush Shrubland	2079	27	32	7	25.9%	21.9%	4.0%	4.8%	0.7%
Inter-Mountain Basins Big Sagebrush Steppe	2125	27	24	8	29.6%	33.3%	4.0%	3.6%	-0.5%
Inter-Mountain Basins Greasewood Flat	2153	24	25	11	45.8%	44.0%	3.6%	3.7%	0.2%
Mojave Mid-Elevation Mixed Desert Scrub	2082	23	17	9	39.1%	52.9%	3.4%	2.5%	-0.9%
Inter-Mountain Basins Sparsely Vegetated Systems	2001	16	1	1	6.3%	100.0%	2.4%	0.2%	-2.2%

Columbia Plateau Steppe and Grassland	2123	16	14	6	37.5%	42.9%	2.4%	2.1%	-0.3%
Introduced Upland Vegetation - Annual Grassland	2181	14	6	3	21.4%	50.0%	2.1%	0.9%	-1.2%
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	2061	13	15	5	38.5%	33.3%	1.9%	2.2%	0.3%
Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland	2062	13	11	5	38.5%	45.5%	1.9%	1.6%	-0.3%
North American Warm Desert Sparsely Vegetated Systems	2004	12	17	6	50.0%	35.3%	1.8%	2.5%	0.7%
Southern Rocky Mountain Ponderosa Pine Woodland	2054	12	12	9	75.0%	75.0%	1.8%	1.8%	0.0%
Inter-Mountain Basins Semi-Desert Grassland	2135	10	2	0	0.0%	0.0%	1.5%	0.3%	-1.2%
Rocky Mountain Lower Montane-Foothill Shrubland	2086	9	0	0	0.0%		1.3%	0.0%	-1.3%
Inter-Mountain Basins Montane Sagebrush Steppe	2126	9	8	3	33.3%	37.5%	1.3%	1.2%	-0.2%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	2055	8	6	5	62.5%	83.3%	1.2%	0.9%	-0.3%
Sonoran Paloverde-Mixed Cacti Desert Scrub	2109	7	2	1	14.3%	50.0%	1.0%	0.3%	-0.7%
Inter-Mountain Basins Semi-Desert Shrub-Steppe	2127	6	6	1	16.7%	16.7%	0.9%	0.9%	0.0%
Quercus gambelii Shrubland Alliance	2217	6	1	1	16.7%	100.0%	0.9%	0.2%	-0.7%
Inter-Mountain Basins Subalpine Limber-Bristlecone Pine Woodland	2020	5	0	0	0.0%		0.7%	0.0%	-0.7%
Inter-Mountain Basins Montane Riparian Systems	2154	5	7	1	20.0%	14.3%	0.7%	1.0%	0.3%
North American Warm Desert Riparian Systems	2155	5	7	4	80.0%	57.1%	0.7%	1.0%	0.3%

Total number of holdout plots = 672; Total number of holdout plots with agreement = 319; Overall agreement = 47.5%

Table 3: Great Basin Super Zone Summary for Existing Vegetation Type-Nature Serve Similarity Types

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
InterMountain Basins Pinyon-Juniper Woodland and Montane Sagebrush	2513	176	161	132	75.0%	82.0%	25.6%	23.4%	-2.2%
Inter-Mountain Basin Big Sagebrush and Desert Sagebrush	2615	133	159	102	76.7%	64.2%	19.3%	23.1%	3.8%
Sonora-Mojave Desert Scrub	2605	67	62	47	70.2%	75.8%	9.7%	9.0%	-0.7%
InterMountain Basins Cool Desert Saline Shrubland	2609	58	98	40	69.0%	40.8%	8.4%	14.2%	5.8%
Introduced Upland	2220	51	34	18	35.3%	52.9%	7.4%	4.9%	-2.5%

Vegetation									
Rocky Mountain and Intermountain Aspen-Mixed Conifer Forest	2521	42	47	34	81.0%	72.3%	6.1%	6.8%	0.7%
Rocky Mountain Subalpine Forest and Woodland	2509	21	15	13	61.9%	86.7%	3.1%	2.2%	-0.9%
Inter-Mountain Basins Sparsely Vegetated Systems	3001	21	2	2	9.5%	100.0%	3.1%	0.3%	-2.8%
Southern Rocky Mountain Montane Shrubland and Grassland	2603	19	8	5	26.3%	62.5%	2.8%	1.2%	-1.6%
Southern Rocky Mountain Ponderosa Pine and Dry-Mesic Woodland	2512	18	22	14	77.8%	63.6%	2.6%	3.2%	0.6%
InterMountain Basins Cool Desert Shrubland and Steppe	2608	17	6	1	5.9%	16.7%	2.5%	0.9%	-1.6%
Columbia Plateau Shrub and Low Sagebrush	2614	17	14	5	29.4%	35.7%	2.5%	2.0%	-0.4%
Rocky Mountain and Intermountain Montane Riparian and Swamp	2519	12	15	3	25.0%	20.0%	1.7%	2.2%	0.4%
North American Warm Desert Sparsely Vegetated Systems	3003	12	17	6	50.0%	35.3%	1.7%	2.5%	0.7%
Rocky Mountain Alpine Turf and Subalpine Meadow	2807	11	5	3	27.3%	60.0%	1.6%	0.7%	-0.9%
California Central Valley and Mojave-Sonoran-Chihuahuan Riparian Systems	2517	5	9	4	80.0%	44.4%	0.7%	1.3%	0.6%

Total number of holdout plots = 688; Total number of holdout plots with agreement = 431; Overall agreement = 62.6%

Table4: Great Basin Super Zone Summary for Existing Vegetation Type-SAF/SRM Types

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
SRM 412: Juniper-Pinyon Woodland	2412	86	77	66	76.7%	85.7%	12.8%	11.5%	-1.3%
SRM 403: Wyoming Big Sagebrush	2403	83	96	48	57.8%	50.0%	12.4%	14.3%	1.9%
LF 54: Introduced Upland Vegetation - Herbaceous	3154	51	33	18	35.3%	54.6%	7.6%	4.9%	-2.7%
SAF 217: Aspen	1217	42	47	34	81.0%	72.3%	6.3%	7.0%	0.7%
SRM 402: Mountain Big Sagebrush	2402	39	34	20	51.3%	58.8%	5.8%	5.1%	-0.7%
SRM 504: Juniper-Pinyon Pine Woodland	2504	36	31	28	77.8%	90.3%	5.4%	4.6%	-0.7%
SRM 414: Salt Desert Shrub	2414	35	72	15	42.9%	20.8%	5.2%	10.7%	5.5%
SRM 506: Creosotebush-Bursage	2506	34	40	23	67.7%	57.5%	5.1%	6.0%	0.9%
LF 33: Sparsely Vegetated	3133	29	20	8	27.6%	40.0%	4.3%	3.0%	-1.3%
SRM 406: Low Sagebrush	2406	28	36	7	25.0%	19.4%	4.2%	5.4%	1.2%

SRM 314: Big Sagebrush-Bluebunch Wheatgrass	2314	27	27	9	33.3%	33.3%	4.0%	4.0%	0.0%
SRM 501: Saltbush-Greasewood	2501	24	26	11	45.8%	42.3%	3.6%	3.9%	0.3%
SRM 212: Blackbush	2212	23	20	10	43.5%	50.0%	3.4%	3.0%	-0.5%
SRM 106: Bluegrass Scabland	2106	16	13	5	31.3%	38.5%	2.4%	1.9%	-0.5%
SRM 415: Curlleaf Mountain-Mahogany	2415	13	17	9	69.2%	52.9%	1.9%	2.5%	0.6%
SAF 237: Interior Ponderosa Pine	1237	12	10	9	75.0%	90.0%	1.8%	1.5%	-0.3%
SRM 502: Grama-Galetta	2502	11	4	0	0.0%	0.0%	1.6%	0.6%	-1.0%
SRM 421: Chokecherry-Serviceberry-Rose	2421	10	1	0	0.0%	0.0%	1.5%	0.2%	-1.3%
SAF 206: Engelmann Spruce-Subalpine Fir	1206	9	6	5	55.6%	83.3%	1.3%	0.9%	-0.5%
SAF 235: Cottonwood-Willow	1235	8	15	3	37.5%	20.0%	1.2%	2.2%	1.0%
SRM 413: Gambel Oak	2413	8	7	5	62.5%	71.4%	1.2%	1.0%	-0.2%
SRM 410: Alpine Rangeland	2410	7	1	1	14.3%	100.0%	1.0%	0.2%	-0.9%
SRM 507: Palo Verde-Cactus	2507	7	2	1	14.3%	50.0%	1.0%	0.3%	-0.7%
SAF 209: Bristlecone Pine	1209	5	3	0	0.0%	0.0%	0.7%	0.5%	-0.3%
SAF 211: White Fir	1211	5	7	2	40.0%	28.6%	0.7%	1.0%	0.3%
SRM 203: Riparian Woodland	2203	5	9	4	80.0%	44.4%	0.7%	1.3%	0.6%

Total number of holdout plots = 672; Total number of holdout plots with agreement = 348; Overall agreement = 51.8%

Table 5: Great Basin Super Zone Summary for Existing Vegetation Type-SAF/SRM Type Groups

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Sagebrush	222	181	196	141	77.9%	71.9%	26.9%	29.1%	2.2%
Pinyon-Juniper	241	122	110	95	77.9%	86.4%	18.1%	16.3%	-1.8%
Salt Desert Shrub	223	59	98	41	69.5%	41.8%	8.8%	14.5%	5.8%
Introduced Grassland and Forbland	354	51	33	18	35.3%	54.6%	7.6%	4.9%	-2.7%
Western Hardwoods	120	50	62	39	78.0%	62.9%	7.4%	9.2%	1.8%
Desert and Thorn Scrub	225	36	40	23	63.9%	57.5%	5.3%	5.9%	0.6%
Sparsely Vegetaed	333	29	20	8	27.6%	40.0%	4.3%	3.0%	-1.3%
Blackbrush	224	23	20	10	43.5%	50.0%	3.4%	3.0%	-0.5%
Chaparral	240	22	24	15	68.2%	62.5%	3.3%	3.6%	0.3%
Interior West Grasslands	211	17	13	5	29.4%	38.5%	2.5%	1.9%	-0.6%
Fir-Spruce	117	14	13	7	50.0%	53.9%	2.1%	1.9%	-0.2%
Ponderosa Pine	113	12	10	9	75.0%	90.0%	1.8%	1.5%	-0.3%
Lodgepole Pine	119	12	9	6	50.0%	66.7%	1.8%	1.3%	-0.5%
Desert grasslands	213	11	4	0	0.0%	0.0%	1.6%	0.6%	-1.0%
Alder/Maple	221	11	3	1	9.1%	33.3%	1.6%	0.5%	-1.2%
Alpine Dwarf Shrubland	260	10	5	3	30.0%	60.0%	1.5%	0.7%	-0.7%

Cacti Desert Shrub	230	7	2	1	14.3%	50.0%	1.0%	0.3%	-0.7%
Riparian Woodland	243	7	9	4	57.1%	44.4%	1.0%	1.3%	0.3%

Total number of holdout plots = 674; Total number of holdout plots with agreement = 426; Overall agreement = 63.2%

Table 6: Great Basin Super Zone Summary for Existing Vegetation Type-Lifeforms

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Shrubland	50	293	343	229	78.2%	66.8%	43.6%	51.0%	7.4%
Forest and Woodland	20	214	216	182	85.1%	84.3%	31.9%	32.1%	0.3%
Herbaceous	40	75	42	27	36.0%	64.3%	11.2%	6.3%	-4.9%
Steppe	60	59	51	20	33.9%	39.2%	8.8%	7.6%	-1.2%
Barren	30	29	20	8	27.6%	40.0%	4.3%	3.0%	-1.3%

Total number of holdout plots = 672; Total number of holdout plots with agreement = 466; Overall agreement = 69.3%

Table7: Great Basin Super Zone Summary for Environmental Site Potential-Ecological Systems

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Great Basin Pinyon-Juniper Woodland	1019	92	116	76	82.6%	65.5%	13.6%	17.2%	3.6%
Inter-Mountain Basins Big Sagebrush Shrubland	1080	72	62	30	41.7%	48.4%	10.7%	9.2%	-1.5%
Great Basin Xeric Mixed Sagebrush Shrubland	1079	44	40	19	43.2%	47.5%	6.5%	5.9%	-0.6%
Inter-Mountain Basins Mixed Salt Desert Scrub	1081	38	61	17	44.7%	27.9%	5.6%	9.0%	3.4%
Inter-Mountain Basins Montane Sagebrush Steppe	1126	38	18	9	23.7%	50.0%	5.6%	2.7%	-3.0%
Inter-Mountain Basins Greasewood Flat	1153	34	33	20	58.8%	60.6%	5.0%	4.9%	-0.2%
Colorado Plateau Pinyon-Juniper Woodland	1016	29	37	24	82.8%	64.9%	4.3%	5.5%	1.2%
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	1087	26	30	21	80.8%	70.0%	3.9%	4.4%	0.6%
Inter-Mountain Basins Sparsely Vegetated Systems	1001	23	0	0	0.0%		3.4%	0.0%	-3.4%
Mojave Mid-Elevation Mixed Desert Scrub	1082	23	22	8	34.8%	36.4%	3.4%	3.3%	-0.2%
Inter-Mountain Basins Big Sagebrush Steppe	1125	23	24	7	30.4%	29.2%	3.4%	3.6%	0.2%
Inter-Mountain Basins Semi-Desert Grassland	1135	23	2	1	4.4%	50.0%	3.4%	0.3%	-3.1%
Columbia Plateau Steppe and Grassland	1123	21	11	6	28.6%	54.6%	3.1%	1.6%	-1.5%
Rocky Mountain Aspen Forest and	1011	20	25	10	50.0%	40.0%	3.0%	3.7%	0.7%

Woodland									
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	1055	20	33	15	75.0%	45.5%	3.0%	4.9%	1.9%
North American Warm Desert Sparsely Vegetated Systems	1004	15	7	4	26.7%	57.1%	2.2%	1.0%	-1.2%
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	1052	15	17	7	46.7%	41.2%	2.2%	2.5%	0.3%
Rocky Mountain Lower Montane-Foothill Shrubland	1086	14	5	1	7.1%	20.0%	2.1%	0.7%	-1.3%
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland	1051	10	11	3	30.0%	27.3%	1.5%	1.6%	0.2%
Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland	1062	10	21	7	70.0%	33.3%	1.5%	3.1%	1.6%
Inter-Mountain Basins Semi-Desert Shrub-Steppe	1127	9	0	0	0.0%		1.3%	0.0%	-1.3%
Inter-Mountain Basins Montane Riparian Systems	1154	7	35	2	28.6%	5.7%	1.0%	5.2%	4.2%
Southern Rocky Mountain Ponderosa Pine Woodland	1054	6	4	1	16.7%	25.0%	0.9%	0.6%	-0.3%
Colorado Plateau Pinyon-Juniper Shrubland	1102	6	2	0	0.0%	0.0%	0.9%	0.3%	-0.6%
Rocky Mountain Subalpine-Montane Mesic Meadow	1145	6	0	0	0.0%		0.9%	0.0%	-0.9%
Rocky Mountain Montane Riparian Systems	1159	6	8	1	16.7%	12.5%	0.9%	1.2%	0.3%
Rocky Mountain Lodgepole Pine Forest	1050	5	5	3	60.0%	60.0%	0.7%	0.7%	0.0%

Total number of holdout plots = 675; Total number of holdout plots with agreement = 297; Overall agreement = 44.0%

Table 8: Great Basin Super Zone Summary for Environmental Site Potential-Ecological Systems, 5x5 Spatial Window

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Great Basin Pinyon-Juniper Woodland	1019	92	116	72	78.3%	62.1%	13.6%	17.2%	3.6%
Inter-Mountain Basins Big Sagebrush Shrubland	1080	72	59	34	47.2%	57.6%	10.7%	8.7%	-1.9%
Great Basin Xeric Mixed Sagebrush Shrubland	1079	44	39	17	38.6%	43.6%	6.5%	5.8%	-0.7%
Inter-Mountain Basins Mixed Salt Desert Scrub	1081	38	67	20	52.6%	29.9%	5.6%	9.9%	4.3%

Inter-Mountain Basins Montane Sagebrush Steppe	1126	38	21	12	31.6%	57.1%	5.6%	3.1%	-2.5%
Inter-Mountain Basins Greasewood Flat	1153	34	29	16	47.1%	55.2%	5.0%	4.3%	-0.7%
Colorado Plateau Pinyon-Juniper Woodland	1016	29	39	24	82.8%	61.5%	4.3%	5.8%	1.5%
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	1087	26	30	22	84.6%	73.3%	3.9%	4.4%	0.6%
Inter-Mountain Basins Sparsely Vegetated Systems	1001	23	0	0	0.0%		3.4%	0.0%	-3.4%
Mojave Mid-Elevation Mixed Desert Scrub	1082	23	19	8	34.8%	42.1%	3.4%	2.8%	-0.6%
Inter-Mountain Basins Big Sagebrush Steppe	1125	23	23	7	30.4%	30.4%	3.4%	3.4%	0.0%
Inter-Mountain Basins Semi-Desert Grassland	1135	23	1	1	4.4%	100.0%	3.4%	0.2%	-3.3%
Columbia Plateau Steppe and Grassland	1123	21	14	8	38.1%	57.1%	3.1%	2.1%	-1.0%
Rocky Mountain Aspen Forest and Woodland	1011	20	26	9	45.0%	34.6%	3.0%	3.9%	0.9%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	1055	20	32	16	80.0%	50.0%	3.0%	4.7%	1.8%
North American Warm Desert Sparsely Vegetated Systems	1004	15	7	4	26.7%	57.1%	2.2%	1.0%	-1.2%
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	1052	15	19	6	40.0%	31.6%	2.2%	2.8%	0.6%
Rocky Mountain Lower Montane-Foothill Shrubland	1086	14	4	0	0.0%	0.0%	2.1%	0.6%	-1.5%
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland	1051	10	11	3	30.0%	27.3%	1.5%	1.6%	0.2%
Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland and Shrubland	1062	10	23	5	50.0%	21.7%	1.5%	3.4%	1.9%
Inter-Mountain Basins Semi-Desert Shrub-Steppe	1127	9	4	2	22.2%	50.0%	1.3%	0.6%	-0.7%
Inter-Mountain Basins Montane Riparian Systems	1154	7	30	2	28.6%	6.7%	1.0%	4.4%	3.4%
Southern Rocky Mountain Ponderosa Pine Woodland	1054	6	5	1	16.7%	20.0%	0.9%	0.7%	-0.2%
Colorado Plateau Pinyon-Juniper Shrubland	1102	6	2	0	0.0%	0.0%	0.9%	0.3%	-0.6%
Rocky Mountain Subalpine-Montane Mesic Meadow	1145	6	0	0	0.0%		0.9%	0.0%	-0.9%
Rocky Mountain Montane Riparian Systems	1159	6	3	1	16.7%	33.3%	0.9%	0.4%	-0.4%

Rocky Mountain Lodgepole Pine Forest	1050	5	4	3	60.0%	75.0%	0.7%	0.6%	-0.2%

Total number of holdout plots = 675; Total number of holdout plots with agreement = 299; Overall agreement = 44.3%

Table 9: Great Basin Super Zone Summary for Environmental Site Potential-NatureServe Similarity Groups

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
InterMountain Basins Pinyon-Juniper Woodland and Montane Sagebrush	2513	175	194	142	81.1%	73.2%	25.9%	28.7%	2.8%
Inter-Mountain Basin Big Sagebrush and Desert Sagebrush	2615	141	126	83	58.9%	65.9%	20.9%	18.7%	-2.2%
InterMountain Basins Cool Desert Saline Shrubland	2609	72	94	51	70.8%	54.3%	10.7%	13.9%	3.3%
Sonora-Mojave Desert Scrub	2605	53	67	43	81.1%	64.2%	7.9%	9.9%	2.1%
Southern Rocky Mountain Ponderosa Pine and Dry-Mesic Woodland	2512	34	38	24	70.6%	63.2%	5.0%	5.6%	0.6%
InterMountain Basins Cool Desert Shrubland and Steppe	2608	32	2	1	3.1%	50.0%	4.7%	0.3%	-4.4%
Rocky Mountain Subalpine Forest and Woodland	2509	31	43	23	74.2%	53.5%	4.6%	6.4%	1.8%
Columbia Plateau Shrub and Low Sagebrush	2614	23	12	6	26.1%	50.0%	3.4%	1.8%	-1.6%
Inter-Mountain Basins Sparsely Vegetated Systems	3001	23	0	0	0.0%		3.4%	0.0%	-3.4%
Rocky Mountain and Intermountain Aspen-Mixed Conifer Forest	2521	21	29	11	52.4%	37.9%	3.1%	4.3%	1.2%
Southern Rocky Mountain Montane Shrubland and Grassland	2603	18	9	4	22.2%	44.4%	2.7%	1.3%	-1.3%
Rocky Mountain and Intermountain Montane Riparian and Swamp	2519	17	45	4	23.5%	8.9%	2.5%	6.7%	4.2%
North American Warm Desert Sparsely Vegetated Systems	3003	15	7	4	26.7%	57.1%	2.2%	1.0%	-1.2%
Rocky Mountain Alpine Turf and Subalpine Meadow	2807	12	0	0	0.0%		1.8%	0.0%	-1.8%

Total number of holdout plots = 675; Total number of holdout plots with agreement = 396; Overall agreement = 58.7%

Great Basin Super Zone Ecological Systems not shown in summary tables (less than 5 plots in the product quality assessment data set)

2020	Inter-Mountain Basins Subalpine Limber-Bristlecone Pine Woodland
2154	Inter-Mountain Basins Montane Riparian Systems
2155	North American Warm Desert Riparian Systems

2046	Northern Rocky Mountain Subalpine Woodland and Parkland
2146	Southern Rocky Mountain Montane-Subalpine Grassland
2050	Rocky Mountain Lodgepole Pine Forest
2143	Rocky Mountain Alpine Fell-Field
2145	Rocky Mountain Subalpine-Montane Mesic Meadow
2159	Rocky Mountain Montane Riparian Systems
2182	Introduced Upland Vegetation-Perennial Grassland and Forbland
2208	Abies concolor Forest Alliance
2052	Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland
2064	Colorado Plateau Mixed Low Sagebrush Shrubland
2095	Apacherian-Chihuahuan Mesquite Upland Scrub
2107	Rocky Mountain Gambel Oak-Mixed Montane Shrubland
2115	Inter-Mountain Basins Juniper Savanna
2164	Rocky Mountain Wetland-Herbaceous
2006	Rocky Mountain Alpine/Montane Sparsely Vegetated Systems
2012	Rocky Mountain Bigtooth Maple Ravine Woodland
2056	Rocky Mountain Subalpine Mesic-Wet Spruce-Fir Forest and Woodland
2088	Sonora-Mojave Mixed Salt Desert Scrub
2091	Sonoran Mid-Elevation Desert Scrub
2106	Northern Rocky Mountain Montane-Foothill Deciduous Shrubland
2124	Columbia Plateau Low Sagebrush Steppe
2140	Northern Rocky Mountain Subalpine-Upper Montane Grassland
2211	Grayia spinosa Shrubland Alliance
2214	Arctostaphylos patula Shrubland Alliance
2051	Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland
2057	Rocky Mountain Subalpine-Montane Limber-Bristlecone Pine Woodland
2160	Rocky Mountain Subalpine/Upper Montane Riparian Systems

Northern Rockies (Map Zones 10, 19, 20, 21, 22)

Table 10: Northern Rockies Super Zone Summary for Existing Vegetation Type-Ecological Systems

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Pseudotsuga menziesii Forest Alliance	2227	119	127	58	48.7%	45.7%	15.5%	16.5%	1.0%
Rocky Mountain Subalpine Wet-Mesic Spruce-Fir Forest and Woodland	2056	63	88	29	46.0%	33.0%	8.2%	11.4%	3.3%
Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	2045	52	59	9	17.3%	15.3%	6.8%	7.7%	0.9%
Northern Rocky Mountain Subalpine Woodland and Parkland	2046	48	21	17	35.4%	81.0%	6.2%	2.7%	-3.5%
Inter-Mountain Basins Big Sagebrush Steppe	2125	48	64	17	35.4%	26.6%	6.2%	8.3%	2.1%
Northern Rocky Mountain Mesic Montane Mixed Conifer Forest	2047	44	26	14	31.8%	53.9%	5.7%	3.4%	-2.3%
Inter-Mountain Basins Big Sagebrush Shrubland	2080	36	35	10	27.8%	28.6%	4.7%	4.6%	-0.1%
Artemisia tridentata ssp. vaseyana Shrubland Alliance	2220	31	32	15	48.4%	46.9%	4.0%	4.2%	0.1%
Rocky Mountain Lodgepole Pine Forest	2050	30	41	15	50.0%	36.6%	3.9%	5.3%	1.4%
Inter-Mountain Basins Montane Sagebrush Steppe	2126	23	15	3	13.0%	20.0%	3.0%	2.0%	-1.0%
Rocky Mountain Montane Riparian Systems	2159	23	32	10	43.5%	31.3%	3.0%	4.2%	1.2%
Rocky Mountain Subalpine-Montane Mesic Meadow	2145	19	18	2	10.5%	11.1%	2.5%	2.3%	-0.1%
Rocky Mountain Subalpine/Upper Montane Riparian Systems	2160	16	5	4	25.0%	80.0%	2.1%	0.7%	-1.4%
Middle Rocky Mountain Montane Douglas-fir Forest and Woodland	2166	16	7	1	6.3%	14.3%	2.1%	0.9%	-1.2%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	2055	15	40	4	26.7%	10.0%	2.0%	5.2%	3.3%
Northwestern Great Plains Mixedgrass Prairie	2141	14	52	12	85.7%	23.1%	1.8%	6.8%	4.9%
Inter-Mountain Basins Sparsely Vegetated Systems	2001	13	1	0	0.0%	0.0%	1.7%	0.1%	-1.6%
Western Great Plains Sparsely Vegetated Systems	2007	12	0	0	0.0%		1.6%	0.0%	-1.6%
Northern Rocky Mountain Lower Montane-Foothill-Valley Grassland	2139	11	9	2	18.2%	22.2%	1.4%	1.2%	-0.3%

Northern Rocky Mountain Foothill Conifer Wooded Steppe	2165	11	0	0	0.0%		1.4%	0.0%	-1.4%
Rocky Mountain Foothill Limber Pine-Juniper Woodland	2049	10	5	4	40.0%	80.0%	1.3%	0.7%	-0.7%
Inter-Mountain Basins Greasewood Flat	2153	10	0	0	0.0%		1.3%	0.0%	-1.3%
Rocky Mountain Aspen Forest and Woodland	2011	9	12	3	33.3%	25.0%	1.2%	1.6%	0.4%
Northern Rocky Mountain Ponderosa Pine Wooland and Savanna	2053	9	20	3	33.3%	15.0%	1.2%	2.6%	1.4%
Rocky Mountain Alpine/Montane Sparsely Vegetated Systems	2006	8	1	0	0.0%	0.0%	1.0%	0.1%	-0.9%
Introduced Upland Vegetation - Perennial Grassland and Forbland	2182	8	3	3	37.5%	100.0%	1.0%	0.4%	-0.7%
Northern Rocky Mountain Lower Montane Deciduous Shrubland	2106	7	5	0	0.0%	0.0%	0.9%	0.7%	-0.3%
Northern Rocky Mountain Subalpine Deciduous Shrubland	2169	6	11	1	16.7%	9.1%	0.8%	1.4%	0.7%
Southern Rocky Mountain Ponderosa Pine Woodland	2054	5	3	2	40.0%	66.7%	0.7%	0.4%	-0.3%
Western Great Plains Floodplain Systems	2162	5	13	4	80.0%	30.8%	0.7%	1.7%	1.0%
Rocky Mountain Poor-Site Lodgepole Pine Forest	2167	5	0	0	0.0%		0.7%	0.0%	-0.7%
Larix occidentalis Forest Alliance	2228	5	0	0	0.0%		0.7%	0.0%	-0.7%

Total number of holdout plots = 770; Total number of holdout plots with agreement = 246; Overall agreement = 31.9%

Table 11: Northern Rockies Super Zone Summary for Existing Vegetation Type-Ecological Systems, 5x5 Spatial Window

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Pseudotsuga menziesii Forest Alliance	2227	119	158	73	61.3%	46.2%	15.5%	20.6%	5.1%
Rocky Mountain Subalpine Wet-Mesic Spruce-Fir Forest and Woodland	2056	63	91	35	55.6%	38.5%	8.2%	11.8%	3.6%
Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	2045	52	51	11	21.2%	21.6%	6.8%	6.6%	-0.1%
Inter-Mountain Basins Big Sagebrush Steppe	2125	48	61	20	41.7%	32.8%	6.2%	7.9%	1.7%
Northern Rocky Mountain Subalpine Woodland and Parkland	2046	47	25	18	38.3%	72.0%	6.1%	3.3%	-2.9%
Northern Rocky Mountain Mesic Montane Mixed Conifer Forest	2047	44	29	16	36.4%	55.2%	5.7%	3.8%	-2.0%

Inter-Mountain Basins Big Sagebrush Shrubland	2080	36	43	13	36.1%	30.2%	4.7%	5.6%	0.9%
Artemisia tridentata ssp. vaseyana Shrubland Alliance	2220	31	22	14	45.2%	63.6%	4.0%	2.9%	-1.2%
Rocky Mountain Lodgepole Pine Forest	2050	30	44	16	53.3%	36.4%	3.9%	5.7%	1.8%
Inter-Mountain Basins Montane Sagebrush Steppe	2126	23	15	4	17.4%	26.7%	3.0%	2.0%	-1.0%
Rocky Mountain Montane Riparian Systems	2159	23	23	11	47.8%	47.8%	3.0%	3.0%	0.0%
Rocky Mountain Subalpine-Montane Mesic Meadow	2145	19	19	3	15.8%	15.8%	2.5%	2.5%	0.0%
Rocky Mountain Subalpine/Upper Montane Riparian Systems	2160	16	5	5	31.3%	100.0%	2.1%	0.7%	-1.4%
Middle Rocky Mountain Montane Douglas-fir Forest and Woodland	2166	16	3	2	12.5%	66.7%	2.1%	0.4%	-1.7%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	2055	15	31	2	13.3%	6.5%	2.0%	4.0%	2.1%
Northwestern Great Plains Mixedgrass Prairie	2141	14	55	12	85.7%	21.8%	1.8%	7.2%	5.3%
Inter-Mountain Basins Sparsely Vegetated Systems	2001	13	2	1	7.7%	50.0%	1.7%	0.3%	-1.4%
Western Great Plains Sparsely Vegetated Systems	2007	12	0	0	0.0%		1.6%	0.0%	-1.6%
Northern Rocky Mountain Lower Montane-Foothill-Valley Grassland	2139	11	13	4	36.4%	30.8%	1.4%	1.7%	0.3%
Northern Rocky Mountain Foothill Conifer Wooded Steppe	2165	11	0	0	0.0%		1.4%	0.0%	-1.4%
Rocky Mountain Foothill Limber Pine-Juniper Woodland	2049	10	3	3	30.0%	100.0%	1.3%	0.4%	-0.9%
Inter-Mountain Basins Greasewood Flat	2153	10	0	0	0.0%		1.3%	0.0%	-1.3%
Rocky Mountain Aspen Forest and Woodland	2011	9	14	2	22.2%	14.3%	1.2%	1.8%	0.7%
Northern Rocky Mountain Ponderosa Pine Wooland and Savanna	2053	9	15	1	11.1%	6.7%	1.2%	2.0%	0.8%
Rocky Mountain Alpine/Montane Sparsely Vegetated Systems	2006	8	0	0	0.0%		1.0%	0.0%	-1.0%
Introduced Upland Vegetation - Perennial Grassland and Forbland	2182	8	6	3	37.5%	50.0%	1.0%	0.8%	-0.3%
Northern Rocky Mountain Lower Montane Deciduous Shrubland	2106	7	2	0	0.0%	0.0%	0.9%	0.3%	-0.7%

Northern Rocky Mountain Subalpine Deciduous Shrubland	2169	6	7	2	33.3%	28.6%	0.8%	0.9%	0.1%
Southern Rocky Mountain Ponderosa Pine Woodland	2054	5	2	2	40.0%	100.0%	0.7%	0.3%	-0.4%
Western Great Plains Floodplain Systems	2162	5	9	4	80.0%	44.4%	0.7%	1.2%	0.5%
Rocky Mountain Poor-Site Lodgepole Pine Forest	2167	5	1	0	0.0%	0.0%	0.7%	0.1%	-0.5%
Larix occidentalis Forest Alliance	2228	5	0	0	0.0%		0.7%	0.0%	-0.7%

Total number of holdout plots = 769; Total number of holdout plots with agreement = 280; Overall agreement = 36.4%

Table 12: Northern Rockies Super Zone Summary for Existing Vegetation Type-Nature Serve Similarity Types

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Northern Rocky Mountain Lower Montane and Foothill Forest and Woodland	2511	247	220	170	68.8%	77.3%	31.3%	27.9%	-3.4%
Rocky Mountain Subalpine Forest and Woodland	2509	163	190	117	71.8%	61.6%	20.6%	24.1%	3.4%
Inter-Mountain Basin Big Sagebrush and Desert Sagebrush	2615	88	101	60	68.2%	59.4%	11.1%	12.8%	1.7%
InterMountain Basins Pinyon-Juniper Woodland and Montane Sagebrush	2513	59	47	27	45.8%	57.5%	7.5%	6.0%	-1.5%
Rocky Mountain and Intermountain Montane Riparian and Swamp	2519	45	40	18	40.0%	45.0%	5.7%	5.1%	-0.6%
Northwest Great Plains Mixed Grass Prairie and Shrubland	2801	28	67	17	60.7%	25.4%	3.5%	8.5%	4.9%
Rocky Mountain Alpine Turf and Subalpine Meadow	2807	20	19	2	10.0%	10.5%	2.5%	2.4%	-0.1%
Northern and Central Rocky Mountain Foothill Pine and Juniper	2524	19	25	8	42.1%	32.0%	2.4%	3.2%	0.8%
North Pacific Montane Shrubland or Avalanche Chute	2613	16	16	2	12.5%	12.5%	2.0%	2.0%	0.0%
Inter-Mountain Basins Sparsely Vegetated Systems	3001	14	1	0	0.0%	0.0%	1.8%	0.1%	-1.7%
Introduced Upland Vegetation	2220	13	3	3	23.1%	100.0%	1.7%	0.4%	-1.3%
InterMountain Basins Cool Desert Saline Shrubland	2609	13	1	0	0.0%	0.0%	1.7%	0.1%	-1.5%
Rocky Mountain and Intermountain Aspen-Mixed Conifer Forest	2521	12	18	5	41.7%	27.8%	1.5%	2.3%	0.8%
Western Great Plains Sparsely Vegetated Systems	3005	12	0	0	0.0%		1.5%	0.0%	-1.5%
Rocky Mountain and North Pacific Sparsely Vegetated Systems	3004	9	1	0	0.0%	0.0%	1.1%	0.1%	-1.0%

Cultivated Crops	1310	7	9	3	42.9%	33.3%	0.9%	1.1%	0.3%
Southern Rocky Mountain Ponderosa Pine and Dry-Mesic Woodland	2512	6	3	2	33.3%	66.7%	0.8%	0.4%	-0.4%
Western Great Plains Floodplain Systems	2520	6	13	4	66.7%	30.8%	0.8%	1.7%	0.9%

Total number of holdout plots = 790; Total number of holdout plots with agreement = 439; Overall agreement = 55.6%

Table 13: Northern Rockies Super Zone Summary for Existing Vegetation Type-SAF/SRM Types

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
SAF 210: Interior Douglas-Fir	1210	186	192	121	65.1%	63.0%	24.2%	25.0%	0.8%
SAF 206: Engelmann Spruce-Subalpine Fir	1206	78	128	41	52.6%	32.0%	10.2%	16.7%	6.5%
SRM 402: Mountain Big Sagebrush	2402	54	47	26	48.2%	55.3%	7.0%	6.1%	-0.9%
SAF 208: Whitebark Pine	1208	48	21	17	35.4%	81.0%	6.3%	2.7%	-3.5%
SRM 314: Big Sagebrush-Bluebunch Wheatgrass	2314	47	63	16	34.0%	25.4%	6.1%	8.2%	2.1%
SAF 213: Grand Fir	1213	44	26	14	31.8%	53.9%	5.7%	3.4%	-2.3%
SRM 403: Wyoming Big Sagebrush	2403	36	36	10	27.8%	27.8%	4.7%	4.7%	0.0%
SAF 218: Lodgepole Pine	1218	35	41	18	51.4%	43.9%	4.6%	5.3%	0.8%
LF 33: Sparsely Vegetated	3133	33	2	0	0.0%	0.0%	4.3%	0.3%	-4.0%
SAF 235: Cottonwood-Willow	1235	29	34	12	41.4%	35.3%	3.8%	4.4%	0.7%
SRM 409: Tall Forb	2409	19	18	2	10.5%	11.1%	2.5%	2.3%	-0.1%
SRM 422: Riparian	2422	16	5	4	25.0%	80.0%	2.1%	0.7%	-1.4%
SAF 237: Interior Ponderosa Pine	1237	15	23	5	33.3%	21.7%	2.0%	3.0%	1.0%
SRM 606: Wheatgrass-Bluestem-Needlegrass	2606	14	52	12	85.7%	23.1%	1.8%	6.8%	5.0%
SAF 217: Aspen	1217	12	18	5	41.7%	27.8%	1.6%	2.3%	0.8%
SRM 109: Ponderosa Pine-Shrubland	2109	11	0	0	0.0%		1.4%	0.0%	-1.4%
SRM 311: Rough Fescue-Bluebunch Wheatgrass	2311	11	9	2	18.2%	22.2%	1.4%	1.2%	-0.3%
SRM 501: Saltbush-Greasewood	2501	11	0	0	0.0%		1.4%	0.0%	-1.4%
SAF 219: Limber Pine	1219	10	5	4	40.0%	80.0%	1.3%	0.7%	-0.7%
SAF 236: Bur Oak	1236	9	14	6	66.7%	42.9%	1.2%	1.8%	0.7%
LF 41: Deciduous Shrubland	3141	9	11	2	22.2%	18.2%	1.2%	1.4%	0.3%
SRM 421: Chokecherry-Serviceberry-Rose	2421	8	6	0	0.0%	0.0%	1.0%	0.8%	-0.3%
LF 54: Introduced Upland Vegetation - Herbaceous	3154	8	3	3	37.5%	100.0%	1.0%	0.4%	-0.7%
SAF 212: Western Larch	1212	5	0	0	0.0%		0.7%	0.0%	-0.7%

Total number of holdout plots = 768; Total number of holdout plots with agreement = 322; Overall agreement = 41.9%

Table 14: Northern Rockies Super Zone Summary for Existing Vegetation Type-SAF/SRM Type Groups

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Douglas-Fir	111	187	193	122	65.2%	63.2%	24.3%	25.1%	0.8%
Sagebrush	222	144	150	103	71.5%	68.7%	18.7%	19.5%	0.8%
Fir-Spruce	117	122	154	61	50.0%	39.6%	15.8%	20.0%	4.2%
Lodgepole Pine	119	94	67	43	45.7%	64.2%	12.2%	8.7%	-3.5%
Western Hardwoods	120	50	66	29	58.0%	43.9%	6.5%	8.6%	2.1%
Sparsely Vegetaed	333	33	2	0	0.0%	0.0%	4.3%	0.3%	-4.0%
Interior West Grasslands	211	28	66	14	50.0%	21.2%	3.6%	8.6%	4.9%
Alpine Dwarf Shrubland	260	20	19	2	10.0%	10.5%	2.6%	2.5%	-0.1%
Alder/Maple	221	19	21	4	21.1%	19.1%	2.5%	2.7%	0.3%
Riparian Woodland	243	16	5	4	25.0%	80.0%	2.1%	0.7%	-1.4%
Ponderosa Pine	113	15	23	5	33.3%	21.7%	2.0%	3.0%	1.0%
Salt Desert Shrub	223	13	1	0	0.0%	0.0%	1.7%	0.1%	-1.6%
Wooded Steppe	242	11	0	0	0.0%		1.4%	0.0%	-1.4%
Introduced Grassland and Forbland	354	8	3	3	37.5%	100.0%	1.0%	0.4%	-0.7%
Larch	116	5	0	0	0.0%		0.7%	0.0%	-0.7%

Total number of holdout plots = 770; Total number of holdout plots with agreement = 390; Overall agreement = 50.6%

Table 15: Northern Rockies Super Zone Summary for Existing Vegetation Type-Lifeforms

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Forest and Woodland	20	472	502	442	93.6%	88.1%	61.5%	65.4%	3.9%
Shrubland	50	121	97	49	40.5%	50.5%	15.8%	12.6%	-3.1%
Steppe	60	74	80	27	36.5%	33.8%	9.6%	10.4%	0.8%
Herbaceous	40	56	87	25	44.6%	28.7%	7.3%	11.3%	4.0%
Barren	30	33	2	0	0.0%	0.0%	4.3%	0.3%	-4.0%
Savanna	90	12	0	0	0.0%		1.6%	0.0%	-1.6%

Total number of holdout plots = 768; Total number of holdout plots with agreement = 543; Overall agreement = 70.7%

Table 16: Northern Rockies Super Zone Summary for Environmental Site Potential-Ecological Systems

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	1045	99	160	65	65.7%	40.6%	14.2%	23.0%	8.8%
Rocky Mountain Subalpine Mesic-Wet Spruce-Fir Forest and Woodland	1056	95	160	73	76.8%	45.6%	13.7%	23.0%	9.4%
Middle Rocky Mountain Montane Douglas-fir Forest	1166	84	48	31	36.9%	64.6%	12.1%	6.9%	-5.2%

and Woodland									
Rocky Mountain Montane Riparian Systems	1159	60	52	19	31.7%	36.5%	8.6%	7.5%	-1.2%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	1055	48	72	27	56.3%	37.5%	6.9%	10.4%	3.5%
Northern Rocky Mountain Mesic Montane Mixed Conifer Forest	1047	47	33	15	31.9%	45.5%	6.8%	4.8%	-2.0%
Inter-Mountain Basins Montane Sagebrush Steppe	1126	46	29	18	39.1%	62.1%	6.6%	4.2%	-2.5%
Inter-Mountain Basins Big Sagebrush Shrubland	1080	32	33	11	34.4%	33.3%	4.6%	4.8%	0.1%
Rocky Mountain Subalpine/Upper Montane Riparian Systems	1160	27	9	5	18.5%	55.6%	3.9%	1.3%	-2.6%
Inter-Mountain Basins Big Sagebrush Steppe	1125	23	49	13	56.5%	26.5%	3.3%	7.1%	3.7%
Rocky Mountain Subalpine-Montane Mesic Meadow	1145	20	0	0	0.0%		2.9%	0.0%	-2.9%
Rocky Mountain Lodgepole Pine Forest	1050	16	0	0	0.0%		2.3%	0.0%	-2.3%
Inter-Mountain Basins Sparsely Vegetated Systems	1001	14	0	0	0.0%		2.0%	0.0%	-2.0%
Northern Rocky Mountain Lower Montane-Foothill-Valley Grassland	1139	14	5	4	28.6%	80.0%	2.0%	0.7%	-1.3%
Rocky Mountain Aspen Forest and Woodland	1011	6	6	0	0.0%	0.0%	0.9%	0.9%	0.0%
Northern Rocky Mountain Ponderosa Pine Woodland and Savanna	1053	6	2	1	16.7%	50.0%	0.9%	0.3%	-0.6%
Northern Rocky Mountain Montane-Foothill Deciduous Shrubland	1106	6	1	0	0.0%	0.0%	0.9%	0.1%	-0.7%
Rocky Mountain Foothill Limber Pine-Juniper Woodland	1049	5	4	3	60.0%	75.0%	0.7%	0.6%	-0.1%

Total number of holdout plots = 695; Total number of holdout plots with agreement = 287; Overall agreement = 41.3%

Table 17: Northern Rockies Super Zone Summary for Environmental Site Potential-Ecological Systems, 5x5 Spatial Window

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	1045	99	171	69	69.7%	40.4%	14.2%	24.6%	10.4%
Rocky Mountain Subalpine Mesic-Wet Spruce-Fir Forest and Woodland	1056	95	168	75	79.0%	44.6%	13.7%	24.2%	10.5%
Middle Rocky Mountain Montane Douglas-fir Forest and Woodland	1166	84	49	31	36.9%	63.3%	12.1%	7.1%	-5.0%
Rocky Mountain Montane Riparian Systems	1159	60	36	14	23.3%	38.9%	8.6%	5.2%	-3.5%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	1055	48	67	26	54.2%	38.8%	6.9%	9.6%	2.7%
Northern Rocky Mountain Mesic Montane Mixed Conifer Forest	1047	47	38	18	38.3%	47.4%	6.8%	5.5%	-1.3%
Inter-Mountain Basins Montane Sagebrush Steppe	1126	46	28	20	43.5%	71.4%	6.6%	4.0%	-2.6%
Inter-Mountain Basins Big Sagebrush Shrubland	1080	32	32	11	34.4%	34.4%	4.6%	4.6%	0.0%
Rocky Mountain Subalpine/Upper Montane Riparian Systems	1160	27	7	5	18.5%	71.4%	3.9%	1.0%	-2.9%
Inter-Mountain Basins Big Sagebrush Steppe	1125	23	51	14	60.9%	27.5%	3.3%	7.3%	4.0%
Rocky Mountain Subalpine-Montane Mesic Meadow	1145	20	0	0	0.0%		2.9%	0.0%	-2.9%
Rocky Mountain Lodgepole Pine Forest	1050	16	0	0	0.0%		2.3%	0.0%	-2.3%
Inter-Mountain Basins Sparsely Vegetated Systems	1001	14	0	0	0.0%		2.0%	0.0%	-2.0%
Northern Rocky Mountain Lower Montane-Foothill-Valley Grassland	1139	14	5	4	28.6%	80.0%	2.0%	0.7%	-1.3%
Rocky Mountain Aspen Forest and Woodland	1011	6	8	0	0.0%	0.0%	0.9%	1.2%	0.3%
Northern Rocky Mountain Ponderosa Pine Woodland and	1053	6	0	0	0.0%		0.9%	0.0%	-0.9%

Savanna									
Northern Rocky Mountain Montane-Foothill Deciduous Shrubland	1106	6	0	0	0.0%		0.9%	0.0%	-0.9%
Rocky Mountain Foothill Limber Pine-Juniper Woodland	1049	5	4	2	40.0%	50.0%	0.7%	0.6%	-0.1%

Total number of holdout plots = 695; Total number of holdout plots with agreement = 291; Overall agreement = 41.9%

Table 18: Northern Rockies Super Zone Summary for Environmental Site Potential-NatureServe Similarity Groups

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Northern Rocky Mountain Lower Montane and Foothill Forest and Woodland	2511	230	241	178	77.4%	73.9%	33.1%	34.7%	1.6%
Rocky Mountain Subalpine Forest and Woodland	2509	163	237	138	84.7%	58.2%	23.5%	34.1%	10.7%
Rocky Mountain and Intermountain Montane Riparian and Swamp	2519	93	65	37	39.8%	56.9%	13.4%	9.4%	-4.0%
Inter-Mountain Basin Big Sagebrush and Desert Sagebrush	2615	59	83	50	84.8%	60.2%	8.5%	11.9%	3.5%
InterMountain Basins Pinyon-Juniper Woodland and Montane Sagebrush	2513	48	31	19	39.6%	61.3%	6.9%	4.5%	-2.5%
Rocky Mountain Alpine Turf and Subalpine Meadow	2807	21	0	0	0.0%		3.0%	0.0%	-3.0%
Northwest Great Plains Mixed Grass Prairie and Shrubland	2801	15	10	4	26.7%	40.0%	2.2%	1.4%	-0.7%
Inter-Mountain Basins Sparsely Vegetated Systems	3001	14	0	0	0.0%		2.0%	0.0%	-2.0%
Northern and Central Rocky Mountain Foothill Pine and Juniper	2524	11	6	4	36.4%	66.7%	1.6%	0.9%	-0.7%
North Pacific Montane Shrubland or Avalanche Chute	2613	10	1	0	0.0%	0.0%	1.4%	0.1%	-1.3%
Rocky Mountain and Intermountain Aspen-Mixed Conifer Forest	2521	6	7	0	0.0%	0.0%	0.9%	1.0%	0.1%
InterMountain Basins Cool Desert Saline Shrubland	2609	6	2	1	16.7%	50.0%	0.9%	0.3%	-0.6%
Columbia Plateau Shrub and Low Sagebrush	2614	5	1	0	0.0%	0.0%	0.7%	0.1%	-0.6%

Total number of holdout plots = 695; Total number of holdout plots with agreement = 433; Overall agreement = 62.3%

Northern Rockies Super Zone Ecological Systems not shown in summary tables (less than 5 plots in the product quality assessment data set)

Wyoming Basins Low Sagebrush Shrubland	2072
Northern Rocky Mountain Conifer Swamp	2161
Western Great Plains Wooded Draw and Ravine	2385
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	2061
Northern Rocky Mountain Avalanche Chute Shrubland	2168
Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland	2062
Inter-Mountain Basins Mixed Salt Desert Scrub	2081
Northwestern Great Plains Shrubland	2085
Columbia Plateau Steppe and Grassland	2123
Columbia Plateau Low Sagebrush Steppe	2124
Western Great Plains Sand Prairie	2148
Inter-Mountain Basins Montane Riparian Systems	2154
Colorado Plateau Pinyon-Juniper Woodland	2016
Rocky Mountain Subalpine-Montane Limber-Bristlecone Pine Woodland	2057
Inter-Mountain Basins Mat Saltbush Shrubland	2066
Rocky Mountain Lower Montane-Foothill Shrubland	2086
Southern Rocky Mountain Ponderosa Pine Savanna	2117
Northern Rocky Mountain Subalpine-Upper Montane Grassland	2140
Rocky Mountain Alpine Fell-Field	2143
Rocky Mountain Alpine Dwarf-Shrubland	2070
Inter-Mountain Basins Semi-Desert Shrub-Steppe	2127
Western Great Plains Depressional Wetland Systems	2495

Northwest (Map Zones 1, 2, 7, 8, 9)

Table 19: Northwest Super Zone Summary for Existing Vegetation Type-Ecological Systems

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
North Pacific Maritime Dry-Mesic Douglas-fir-Western Hemlock Forest	2037	123	141	59	48.0%	41.8%	12.2%	14.0%	1.8%
North Pacific Maritime Mesic-Wet Douglas-fir-Western Hemlock Forest	2039	68	62	34	50.0%	54.8%	6.8%	6.2%	-0.6%
North Pacific Mesic Western Hemlock-Silver Fir Forest	2042	63	46	18	28.6%	39.1%	6.3%	4.6%	-1.7%
North Pacific Dry-Mesic Silver Fir-Western Hemlock-Douglas-fir Forest	2174	52	64	23	44.2%	35.9%	5.2%	6.4%	1.2%
Mediterranean California Mesic Mixed Conifer Forest and Woodland	2028	47	43	20	42.6%	46.5%	4.7%	4.3%	-0.4%
Inter-Mountain Basins Big Sagebrush Steppe	2125	45	47	21	46.7%	44.7%	4.5%	4.7%	0.2%
Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	2045	42	62	27	64.3%	43.6%	4.2%	6.2%	2.0%
Northern Rocky Mountain Ponderosa Pine Wooland and Savanna	2053	39	35	12	30.8%	34.3%	3.9%	3.5%	-0.4%
Inter-Mountain Basins Montane Sagebrush Steppe	2126	36	14	9	25.0%	64.3%	3.6%	1.4%	-2.2%
Mediterranean California Mixed Evergreen Forest	2043	35	33	20	57.1%	60.6%	3.5%	3.3%	-0.2%
East Cascades Mesic Montane Mixed-Conifer Forest and Woodland	2018	32	35	24	75.0%	68.6%	3.2%	3.5%	0.3%
Inter-Mountain Basins Big Sagebrush Shrubland	2080	30	51	19	63.3%	37.3%	3.0%	5.1%	2.1%
Mediterranean California Dry-Mesic Mixed Conifer Forest and Wood	2027	29	39	10	34.5%	25.6%	2.9%	3.9%	1.0%
North Pacific Hypermaritime Sitka Spruce Forest	2036	27	18	12	44.4%	66.7%	2.7%	1.8%	-0.9%
North Pacific Broadleaf Landslide Forest and Shrubland	2063	23	6	5	21.7%	83.3%	2.3%	0.6%	-1.7%
Columbia Plateau Low Sagebrush Steppe	2124	21	25	7	33.3%	28.0%	2.1%	2.5%	0.4%
Northern California Mesic Subalpine Woodland	2044	15	2	2	13.3%	100.0%	1.5%	0.2%	-1.3%

Rocky Mountain Subalpine Wet-Mesic Spruce-Fir Forest and Woodland	2056	15	11	2	13.3%	18.2%	1.5%	1.1%	-0.4%
Mediterranean California Red Fir Forest	2032	14	12	3	21.4%	25.0%	1.4%	1.2%	-0.2%
Mediterranean California Lower Montane Black Oak-Conifer Forest and Wood	2030	13	11	6	46.2%	54.6%	1.3%	1.1%	-0.2%
North Pacific Mountain Hemlock Forest	2041	13	19	6	46.2%	31.6%	1.3%	1.9%	0.6%
North Pacific Hypermaritime Western Red-cedar-Western Hemlock Forest	2178	13	10	1	7.7%	10.0%	1.3%	1.0%	-0.3%
Northern Rocky Mountain Subalpine Woodland and Parkland	2046	12	12	6	50.0%	50.0%	1.2%	1.2%	0.0%
Pseudotsuga menziesii Giant Forest Alliance	2206	11	1	1	9.1%	100.0%	1.1%	0.1%	-1.0%
Inter-Mountain Basins Greasewood Flat	2153	9	1	0	0.0%	0.0%	0.9%	0.1%	-0.8%
North Pacific Wooded Lava Volcanic Flowage	2173	9	8	3	33.3%	37.5%	0.9%	0.8%	-0.1%
Columbia Plateau Western Juniper Woodland and Savanna	2017	7	1	0	0.0%	0.0%	0.7%	0.1%	-0.6%
North Pacific Maritime Mesic Subalpine Parkland	2038	7	6	1	14.3%	16.7%	0.7%	0.6%	-0.1%
North Pacific Dry and Mesic Alpine Dwarf-Shrubland or Fell-field or Mead	2068	7	10	5	71.4%	50.0%	0.7%	1.0%	0.3%
Inter-Mountain Basins Mixed Salt Desert Scrub	2081	7	3	1	14.3%	33.3%	0.7%	0.3%	-0.4%
Pseudotsuga menziesii Forest Alliance	2227	7	7	1	14.3%	14.3%	0.7%	0.7%	0.0%
Northern Rocky Mountain Mesic Montane Mixed Conifer Forest	2047	6	1	0	0.0%	0.0%	0.6%	0.1%	-0.5%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	2055	6	1	0	0.0%	0.0%	0.6%	0.1%	-0.5%
Columbia Plateau Steppe and Grassland	2123	6	13	0	0.0%	0.0%	0.6%	1.3%	0.7%
North Pacific Lowland Riparian Forest and Shrubland	2156	6	22	5	83.3%	22.7%	0.6%	2.2%	1.6%
North Pacific Montane Riparian Woodland and Shrubland(Tree)	2158	6	12	1	16.7%	8.3%	0.6%	1.2%	0.6%
Introduced Upland Vegetation - Annual	2181	6	5	1	16.7%	20.0%	0.6%	0.5%	-0.1%

Grassland									
North Pacific Dry Douglas-fir Forest and Woodland	2035	5	2	0	0.0%	0.0%	0.5%	0.2%	-0.3%
California Montane Woodland and Chaparral	2098	5	1	0	0.0%	0.0%	0.5%	0.1%	-0.4%
Northern Rocky Mountain Lower Montane Deciduous Shrubland	2106	5	0	0	0.0%		0.5%	0.0%	-0.5%
Columbia Basin Palouse Prairie	2142	5	1	0	0.0%	0.0%	0.5%	0.1%	-0.4%
Rocky Mountain Poor-Site Lodgepole Pine Forest	2167	5	4	2	40.0%	50.0%	0.5%	0.4%	-0.1%
Introduced Upland Vegetation - Perennial Grassland and Forbland	2182	5	7	2	40.0%	28.6%	0.5%	0.7%	0.2%

Total number of holdout plots = 1005; Total number of holdout plots with agreement = 384; Overall agreement = 38.2%

Table 20: Northwest Super Zone Summary for Existing Vegetation Type-Ecological Systems, 5x5 Spatial Window

		Class Specific Holdout Plot Agreement					**Proportional Agreement**		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
North Pacific Maritime Dry-Mesic Douglas-fir-Western Hemlock Forest	2037	123	148	65	52.9%	43.9%	12.3%	14.8%	2.5%
North Pacific Maritime Mesic-Wet Douglas-fir-Western Hemlock Forest	2039	68	62	33	48.5%	53.2%	6.8%	6.2%	-0.6%
North Pacific Mesic Western Hemlock-Silver Fir Forest	2042	63	54	26	41.3%	48.2%	6.3%	5.4%	-0.9%
North Pacific Dry-Mesic Silver Fir-Western Hemlock-Douglas-fir Forest	2174	52	63	26	50.0%	41.3%	5.2%	6.3%	1.1%
Mediterranean California Mesic Mixed Conifer Forest and Woodland	2028	47	40	23	48.9%	57.5%	4.7%	4.0%	-0.7%
Inter-Mountain Basins Big Sagebrush Steppe	2125	44	49	20	45.5%	40.8%	4.4%	4.9%	0.5%
Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	2045	42	68	29	69.1%	42.7%	4.2%	6.8%	2.6%
Northern Rocky Mountain Ponderosa Pine Wooland and Savanna	2053	38	41	17	44.7%	41.5%	3.8%	4.1%	0.3%
Inter-Mountain Basins Montane Sagebrush Steppe	2126	36	11	10	27.8%	90.9%	3.6%	1.1%	-2.5%
Mediterranean California Mixed Evergreen Forest	2043	35	35	23	65.7%	65.7%	3.5%	3.5%	0.0%

East Cascades Mesic Montane Mixed-Conifer Forest and Woodland	2018	32	35	23	71.9%	65.7%	3.2%	3.5%	0.3%
Mediterranean California Dry-Mesic Mixed Conifer Forest and Wood	2027	29	38	13	44.8%	34.2%	2.9%	3.8%	0.9%
Inter-Mountain Basins Big Sagebrush Shrubland	2080	29	53	20	69.0%	37.7%	2.9%	5.3%	2.4%
North Pacific Hypermaritime Sitka Spruce Forest	2036	27	22	17	63.0%	77.3%	2.7%	2.2%	-0.5%
North Pacific Broadleaf Landslide Forest and Shrubland	2063	23	6	5	21.7%	83.3%	2.3%	0.6%	-1.7%
Columbia Plateau Low Sagebrush Steppe	2124	21	25	6	28.6%	24.0%	2.1%	2.5%	0.4%
Northern California Mesic Subalpine Woodland	2044	15	3	3	20.0%	100.0%	1.5%	0.3%	-1.2%
Rocky Mountain Subalpine Wet-Mesic Spruce-Fir Forest and Woodland	2056	15	9	3	20.0%	33.3%	1.5%	0.9%	-0.6%
Mediterranean California Red Fir Forest	2032	14	10	7	50.0%	70.0%	1.4%	1.0%	-0.4%
Mediterranean California Lower Montane Black Oak-Conifer Forest and Wood	2030	13	11	7	53.9%	63.6%	1.3%	1.1%	-0.2%
North Pacific Mountain Hemlock Forest	2041	13	29	8	61.5%	27.6%	1.3%	2.9%	1.6%
North Pacific Hypermaritime Western Red-cedar-Western Hemlock Forest	2178	13	5	0	0.0%	0.0%	1.3%	0.5%	-0.8%
Northern Rocky Mountain Subalpine Woodland and Parkland	2046	12	13	6	50.0%	46.2%	1.2%	1.3%	0.1%
Pseudotsuga menziesii Giant Forest Alliance	2206	11	0	0	0.0%		1.1%	0.0%	-1.1%
North Pacific Wooded Lava Volcanic Flowage	2173	9	9	3	33.3%	33.3%	0.9%	0.9%	0.0%
Inter-Mountain Basins Greasewood Flat	2153	8	1	0	0.0%	0.0%	0.8%	0.1%	-0.7%
Columbia Plateau Western Juniper Woodland and Savanna	2017	7	3	0	0.0%	0.0%	0.7%	0.3%	-0.4%
North Pacific Maritime Mesic Subalpine Parkland	2038	7	5	1	14.3%	20.0%	0.7%	0.5%	-0.2%
North Pacific Dry and Mesic Alpine Dwarf-Shrubland or Fell-field or Mead	2068	7	13	5	71.4%	38.5%	0.7%	1.3%	0.6%
Inter-Mountain Basins Mixed Salt Desert Scrub	2081	7	5	1	14.3%	20.0%	0.7%	0.5%	-0.2%
Pseudotsuga menziesii Forest Alliance	2227	7	5	0	0.0%	0.0%	0.7%	0.5%	-0.2%
Northern Rocky Mountain Mesic Montane Mixed Conifer	2047	6	1	1	16.7%	100.0%	0.6%	0.1%	-0.5%

Forest									
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	2055	6	0	0	0.0%		0.6%	0.0%	-0.6%
Columbia Plateau Steppe and Grassland	2123	6	9	0	0.0%	0.0%	0.6%	0.9%	0.3%
North Pacific Lowland Riparian Forest and Shrubland	2156	6	17	4	66.7%	23.5%	0.6%	1.7%	1.1%
North Pacific Montane Riparian Woodland and Shrubland(Tree)	2158	6	9	1	16.7%	11.1%	0.6%	0.9%	0.3%
Introduced Upland Vegetation - Annual Grassland	2181	6	3	1	16.7%	33.3%	0.6%	0.3%	-0.3%
North Pacific Dry Douglas-fir Forest and Woodland	2035	5	0	0	0.0%		0.5%	0.0%	-0.5%
California Montane Woodland and Chaparral	2098	5	1	0	0.0%	0.0%	0.5%	0.1%	-0.4%
Northern Rocky Mountain Lower Montane Deciduous Shrubland	2106	5	1	0	0.0%	0.0%	0.5%	0.1%	-0.4%
Columbia Basin Palouse Prairie	2142	5	0	0	0.0%		0.5%	0.0%	-0.5%
Rocky Mountain Poor-Site Lodgepole Pine Forest	2167	5	4	2	40.0%	50.0%	0.5%	0.4%	-0.1%
Introduced Upland Vegetation - Perennial Grassland and Forbland	2182	5	4	2	40.0%	50.0%	0.5%	0.4%	-0.1%

Total number of holdout plots = 1000; Total number of holdout plots with agreement = 423; Overall agreement = 42.3%

Table 21: Northwest Super Zone Summary for Existing Vegetation Type-Nature Serve Similarity Types

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
North Pacific Mesic Douglas Fir-Hemlock and Broadleaf Forest	2504	340	320	265	77.9%	82.8%	33.2%	31.3%	-2.0%
Klamath and Mediterranean California Montane Forest	2508	116	125	77	66.4%	61.6%	11.3%	12.2%	0.9%
Northern Rocky Mountain Lower Montane and Foothill Forest and Woodland	2511	91	110	68	74.7%	61.8%	8.9%	10.7%	1.9%
Inter-Mountain Basin Big Sagebrush and Desert Sagebrush	2615	77	98	50	64.9%	51.0%	7.5%	9.6%	2.1%
InterMountain Basins Pinyon-Juniper Woodland and Montane Sagebrush	2513	51	22	17	33.3%	77.3%	5.0%	2.2%	-2.8%
Rocky Mountain Subalpine Forest and Woodland	2509	42	34	20	47.6%	58.8%	4.1%	3.3%	-0.8%
Pacific Coast Conifer (Redwood/Sitka Spruce/Western Hemlock)	2523	40	28	16	40.0%	57.1%	3.9%	2.7%	-1.2%

Northern and Central Rocky Mountain Foothill Pine and Juniper	2524	39	35	12	30.8%	34.3%	3.8%	3.4%	-0.4%
North Pacific Montane-Subalpine Mountain Hemlock and Mixed Conifer Woodland	2505	36	27	14	38.9%	51.9%	3.5%	2.6%	-0.9%
Columbia Plateau Shrub and Low Sagebrush	2614	31	39	10	32.3%	25.6%	3.0%	3.8%	0.8%
Mediterranean California Upper Montane-Subalpine Forest and Chaparral	2506	24	21	9	37.5%	42.9%	2.3%	2.1%	-0.3%
InterMountain Basins Cool Desert Saline Shrubland	2609	20	4	2	10.0%	50.0%	2.0%	0.4%	-1.6%
North Pacific Oak and Dry Conifer Woodland	2501	19	14	3	15.8%	21.4%	1.9%	1.4%	-0.5%
Introduced Upland Vegetation	2220	15	13	3	20.0%	23.1%	1.5%	1.3%	-0.2%
Mediterranean California Lower Montane and Mixed Oak Woodland	2522	15	14	10	66.7%	71.4%	1.5%	1.4%	-0.1%
North Pacific and Californian Montane Riparian and Swamp	2518	12	46	6	50.0%	13.0%	1.2%	4.5%	3.3%
North Pacific Montane Shrubland or Avalanche Chute	2613	11	3	0	0.0%	0.0%	1.1%	0.3%	-0.8%
Rocky Mountain and Intermountain Montane Riparian and Swamp	2519	9	16	4	44.4%	25.0%	0.9%	1.6%	0.7%
Rocky Mountain and Intermountain Aspen-Mixed Conifer Forest	2521	8	10	3	37.5%	30.0%	0.8%	1.0%	0.2%
Pacific Alpine Dwarf Shrubland	2610	7	10	5	71.4%	50.0%	0.7%	1.0%	0.3%
Columbia Basin/Northern Rocky Mountain Valley Grasslands	2805	6	1	0	0.0%	0.0%	0.6%	0.1%	-0.5%
Northern Rocky Mountain and North Pacific Alpine/Subalpine/Montane Grasslands	2802	5	5	1	20.0%	20.0%	0.5%	0.5%	0.0%

Total number of holdout plots = 1024; Total number of holdout plots with agreement = 596; Overall agreement = 58.2%

Table 22: Northwest Super Zone Summary for Existing Vegetation Type-SAF/SRM Types

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
SAF 230: Douglas-Fir-Western Hemlock	1230	189	202	131	69.3%	64.9%	18.9%	20.2%	1.3%
SAF 226: Coastal True Fir-Hemlock	1226	116	110	68	58.6%	61.8%	11.6%	11.0%	-0.6%
SAF 210: Interior Douglas-Fir	1210	49	69	32	65.3%	46.4%	4.9%	6.9%	2.0%
SAF 211: White Fir	1211	48	44	21	43.8%	47.7%	4.8%	4.4%	-0.4%
SRM 314: Big Sagebrush-Bluebunch Wheatgrass	2314	45	47	21	46.7%	44.7%	4.5%	4.7%	0.2%
SAF 237: Interior Ponderosa Pine	1237	40	34	11	27.5%	32.4%	4.0%	3.4%	-0.6%
SAF 213: Grand Fir	1213	39	40	24	61.5%	60.0%	3.9%	4.0%	0.1%

SRM 402: Mountain Big Sagebrush	2402	36	16	10	27.8%	62.5%	3.6%	1.6%	-2.0%
SAF 205: Mountain Hemlock	1205	35	27	14	40.0%	51.9%	3.5%	2.7%	-0.8%
SAF 234: Douglas-Fir-Tanoak-Pacific Madrone	1234	35	33	20	57.1%	60.6%	3.5%	3.3%	-0.2%
SRM 403: Wyoming Big Sagebrush	2403	32	52	19	59.4%	36.5%	3.2%	5.2%	2.0%
SAF 243: Sierra Nevada Mixed Conifer	1243	29	38	10	34.5%	26.3%	2.9%	3.8%	0.9%
SAF 223: Sitka Spruce	1223	27	18	12	44.4%	66.7%	2.7%	1.8%	-0.9%
SAF 221: Red Alder	1221	23	6	5	21.7%	83.3%	2.3%	0.6%	-1.7%
SAF 206: Engelmann Spruce-Subalpine Fir	1206	21	12	4	19.1%	33.3%	2.1%	1.2%	-0.9%
SRM 406: Low Sagebrush	2406	21	25	7	33.3%	28.0%	2.1%	2.5%	0.4%
SAF 218: Lodgepole Pine	1218	19	21	8	42.1%	38.1%	1.9%	2.1%	0.2%
SAF 229: Pacific Douglas-Fir	1229	17	6	1	5.9%	16.7%	1.7%	0.6%	-1.1%
SAF 246: California Black Oak	1246	15	14	10	66.7%	71.4%	1.5%	1.4%	-0.1%
SAF 207: Red Fir	1207	14	12	3	21.4%	25.0%	1.4%	1.2%	-0.2%
SAF 227: Western Redcedar-Western Hemlock	1227	13	10	1	7.7%	10.0%	1.3%	1.0%	-0.3%
SAF 208: Whitebark Pine	1208	12	12	6	50.0%	50.0%	1.2%	1.2%	0.0%
SAF 222: Black Cottonwood-Willow	1222	12	42	6	50.0%	14.3%	1.2%	4.2%	3.0%
LF 54: Introduced Upland Vegetation - Herbaceous	3154	11	13	3	27.3%	23.1%	1.1%	1.3%	0.2%
SRM 501: Saltbush-Greasewood	2501	9	1	0	0.0%	0.0%	0.9%	0.1%	-0.8%
SRM 107: Western Juniper-Big Sagebrush-Bluebunch Wheatgrass	2107	8	1	0	0.0%	0.0%	0.8%	0.1%	-0.7%
SAF 235: Cottonwood-Willow	1235	7	14	3	42.9%	21.4%	0.7%	1.4%	0.7%
SRM 106: Bluegrass Scabland	2106	7	14	0	0.0%	0.0%	0.7%	1.4%	0.7%
SRM 108: Alpine Idaho Fescue	2108	7	10	5	71.4%	50.0%	0.7%	1.0%	0.3%
SRM 414: Salt Desert Shrub	2414	7	3	1	14.3%	33.3%	0.7%	0.3%	-0.4%
SAF 217: Aspen	1217	6	10	3	50.0%	30.0%	0.6%	1.0%	0.4%
SRM 102: Idaho Fescue	2102	5	1	0	0.0%	0.0%	0.5%	0.1%	-0.4%
SRM 209: Montane Shrubland	2209	5	1	0	0.0%	0.0%	0.5%	0.1%	-0.4%
SRM 421: Chokecherry-Serviceberry-Rose	2421	5	0	0	0.0%		0.5%	0.0%	-0.5%
LF 41: Deciduous Shrubland	3141	5	3	0	0.0%	0.0%	0.5%	0.3%	-0.2%

Total number of holdout plots = 1001; Total number of holdout plots with agreement = 467; Overall agreement = 46.7%

Table 23: Northwest Super Zone Summary for Existing Vegetation Type-SAF/SRM Type Groups

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Fir-Spruce	117	306	289	202	66.0%	69.9%	30.4%	28.7%	-1.7%
Douglas-Fir	111	294	313	212	72.1%	67.7%	29.2%	31.1%	1.9%
Sagebrush	222	134	140	107	79.9%	76.4%	13.3%	13.9%	0.6%
Western Hardwoods	120	67	86	32	47.8%	37.2%	6.7%	8.6%	1.9%
Ponderosa Pine	113	42	38	12	28.6%	31.6%	4.2%	3.8%	-0.4%
Hemlock/Sitka Spruce	112	40	28	16	40.0%	57.1%	4.0%	2.8%	-1.2%
Lodgepole Pine	119	31	39	14	45.2%	35.9%	3.1%	3.9%	0.8%
Salt Desert Shrub	223	16	4	2	12.5%	50.0%	1.6%	0.4%	-1.2%
Interior West Grasslands	211	15	25	2	13.3%	8.0%	1.5%	2.5%	1.0%
Alpine Dwarf Shrubland	260	12	14	6	50.0%	42.9%	1.2%	1.4%	0.2%
Introduced Grassland and Forbland	354	11	13	3	27.3%	23.1%	1.1%	1.3%	0.2%
Alder/Maple	221	10	3	0	0.0%	0.0%	1.0%	0.3%	-0.7%
Chaparral	240	10	4	2	20.0%	50.0%	1.0%	0.4%	-0.6%
Juniper	244	10	3	1	10.0%	33.3%	1.0%	0.3%	-0.7%

Total number of holdout plots = 1006; Total number of holdout plots with agreement = 611; Overall agreement = 60.7%

Table 24: Northwest Super Zone Summary for Existing Vegetation Type-Lifeforms

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Forest and Woodland	20	783	795	749	95.7%	94.2%	78.2%	79.4%	1.2%
Steppe	60	110	100	77	70.0%	77.0%	11.0%	10.0%	-1.0%
Shrubland	50	79	77	40	50.6%	52.0%	7.9%	7.7%	-0.2%
Herbaceous	40	24	28	6	25.0%	21.4%	2.4%	2.8%	0.4%

Total number of holdout plots = 1001; Total number of holdout plots with agreement = 872; Overall agreement = 87.1%

Table 25: Northwest Super Zone Summary for Environmental Site Potential-Ecological Systems

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
North Pacific Maritime Mesic-Wet Douglas-fir-Western Hemlock Forest	1039	117	119	82	70.1%	68.9%	12.7%	13.0%	0.2%
Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	1045	86	85	53	61.6%	62.4%	9.4%	9.3%	-0.1%
North Pacific Maritime Dry-Mesic Douglas-fir-Western Hemlock Forest	1037	65	60	30	46.2%	50.0%	7.1%	6.5%	-0.5%
Inter-Mountain Basins Montane Sagebrush Steppe	1126	57	11	8	14.0%	72.7%	6.2%	1.2%	-5.0%

North Pacific Mesic Western Hemlock-Silver Fir Forest	1042	52	64	23	44.2%	35.9%	5.7%	7.0%	1.3%
North Pacific Dry-Mesic Silver Fir-Western Hemlock-Douglas-fir Forest	1174	51	46	16	31.4%	34.8%	5.6%	5.0%	-0.5%
Mediterranean California Dry-Mesic Mixed Conifer Forest and Woodland	1027	50	44	28	56.0%	63.6%	5.4%	4.8%	-0.7%
East Cascades Mesic Montane Mixed-Conifer Forest and Woodland	1018	46	40	30	65.2%	75.0%	5.0%	4.4%	-0.7%
Mediterranean California Mesic Mixed Conifer Forest and Woodland	1028	33	32	24	72.7%	75.0%	3.6%	3.5%	-0.1%
North Pacific Hypermaritime Sitka Spruce Forest	1036	30	16	16	53.3%	100.0%	3.3%	1.7%	-1.5%
North Pacific Mountain Hemlock Forest	1041	30	36	23	76.7%	63.9%	3.3%	3.9%	0.7%
Mediterranean California Mixed Evergreen Forest	1043	29	28	22	75.9%	78.6%	3.2%	3.1%	-0.1%
Inter-Mountain Basins Big Sagebrush Shrubland	1080	27	47	22	81.5%	46.8%	2.9%	5.1%	2.2%
Mediterranean California Red Fir Forest	1032	17	12	11	64.7%	91.7%	1.9%	1.3%	-0.5%
Northern Rocky Mountain Ponderosa Pine Woodland and Savanna	1053	16	29	3	18.8%	10.3%	1.7%	3.2%	1.4%
Inter-Mountain Basins Big Sagebrush Steppe	1125	16	37	6	37.5%	16.2%	1.7%	4.0%	2.3%
Inter-Mountain Basins Greasewood Flat	1153	16	9	9	56.3%	100.0%	1.7%	1.0%	-0.8%
Rocky Mountain Subalpine Mesic-Wet Spruce-Fir Forest and Woodland	1056	15	17	7	46.7%	41.2%	1.6%	1.9%	0.2%
Columbia Plateau Western Juniper Woodland and Savanna	1017	13	12	6	46.2%	50.0%	1.4%	1.3%	-0.1%
Columbia Plateau Low Sagebrush Steppe	1124	12	12	2	16.7%	16.7%	1.3%	1.3%	0.0%
North Pacific Hypermaritime Western Red-cedar-Western Hemlock Forest	1178	12	12	3	25.0%	25.0%	1.3%	1.3%	0.0%
Columbia Plateau Steppe and Grassland	1123	8	11	3	37.5%	27.3%	0.9%	1.2%	0.3%
North Pacific Lowland Riparian Forest and Shrubland	1156	8	10	7	87.5%	70.0%	0.9%	1.1%	0.2%

Rocky Mountain Montane Riparian Systems	1159	8	8	3	37.5%	37.5%	0.9%	0.9%	0.0%
Mediterranean California Lower Montane Black Oak-Conifer Forest and Woodland	1030	7	0	0	0.0%		0.8%	0.0%	-0.8%
Northern Rocky Mountain Mesic Montane Mixed Conifer Forest	1047	7	11	5	71.4%	45.5%	0.8%	1.2%	0.4%
North Pacific Dry and Mesic Alpine Dwarf-Shrubland or Fell-field or Meadow	1068	7	3	1	14.3%	33.3%	0.8%	0.3%	-0.4%
Northern California Mesic Subalpine Woodland	1044	6	0	0	0.0%		0.7%	0.0%	-0.7%
Northern Rocky Mountain Subalpine Woodland and Parkland	1046	5	10	2	40.0%	20.0%	0.5%	1.1%	0.5%
North Pacific Broadleaf Landslide Forest and Shrubland	1063	5	0	0	0.0%		0.5%	0.0%	-0.5%
Inter-Mountain Basins Mixed Salt Desert Scrub	1081	5	2	2	40.0%	100.0%	0.5%	0.2%	-0.3%
Northern Rocky Mountain Montane-Foothill Deciduous Shrubland	1106	5	0	0	0.0%		0.5%	0.0%	-0.5%
North Pacific Wooded Volcanic Flowage	1173	5	6	3	60.0%	50.0%	0.5%	0.7%	0.1%

Total number of holdout plots = 919; Total number of holdout plots with agreement = 460; Overall agreement = 50.1%

Table 26: Northwest Super Zone Summary for Environmental Site Potential-Ecological Systems, 5x5 Spatial Window

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
North Pacific Maritime Mesic-Wet Douglas-fir-Western Hemlock Forest	1039	117	122	85	72.7%	69.7%	12.7%	13.3%	0.5%
Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	1045	86	93	54	62.8%	58.1%	9.4%	10.1%	0.8%
North Pacific Maritime Dry-Mesic Douglas-fir-Western Hemlock Forest	1037	65	66	32	49.2%	48.5%	7.1%	7.2%	0.1%
Inter-Mountain Basins Montane Sagebrush Steppe	1126	57	10	8	14.0%	80.0%	6.2%	1.1%	-5.1%
North Pacific Mesic Western Hemlock-Silver Fir Forest	1042	52	70	27	51.9%	38.6%	5.7%	7.6%	2.0%
North Pacific Dry-Mesic Silver Fir-Western Hemlock-Douglas-fir Forest	1174	51	44	17	33.3%	38.6%	5.6%	4.8%	-0.8%

Mediterranean California Dry-Mesic Mixed Conifer Forest and Woodland	1027	50	42	26	52.0%	61.9%	5.4%	4.6%	-0.9%
East Cascades Mesic Montane Mixed-Conifer Forest and Woodland	1018	46	42	31	67.4%	73.8%	5.0%	4.6%	-0.4%
Mediterranean California Mesic Mixed Conifer Forest and Woodland	1028	33	30	22	66.7%	73.3%	3.6%	3.3%	-0.3%
North Pacific Hypermaritime Sitka Spruce Forest	1036	30	20	20	66.7%	100.0%	3.3%	2.2%	-1.1%
North Pacific Mountain Hemlock Forest	1041	30	37	23	76.7%	62.2%	3.3%	4.0%	0.8%
Mediterranean California Mixed Evergreen Forest	1043	29	29	23	79.3%	79.3%	3.2%	3.2%	0.0%
Inter-Mountain Basins Big Sagebrush Shrubland	1080	27	49	23	85.2%	46.9%	2.9%	5.3%	2.4%
Mediterranean California Red Fir Forest	1032	17	12	12	70.6%	100.0%	1.9%	1.3%	-0.5%
Northern Rocky Mountain Ponderosa Pine Woodland and Savanna	1053	16	35	5	31.3%	14.3%	1.7%	3.8%	2.1%
Inter-Mountain Basins Big Sagebrush Steppe	1125	16	37	6	37.5%	16.2%	1.7%	4.0%	2.3%
Inter-Mountain Basins Greasewood Flat	1153	16	9	9	56.3%	100.0%	1.7%	1.0%	-0.8%
Rocky Mountain Subalpine Mesic-Wet Spruce-Fir Forest and Woodland	1056	15	17	8	53.3%	47.1%	1.6%	1.9%	0.2%
Columbia Plateau Western Juniper Woodland and Savanna	1017	13	13	6	46.2%	46.2%	1.4%	1.4%	0.0%
Columbia Plateau Low Sagebrush Steppe	1124	12	11	2	16.7%	18.2%	1.3%	1.2%	-0.1%
North Pacific Hypermaritime Western Red-cedar-Western Hemlock Forest	1178	12	12	2	16.7%	16.7%	1.3%	1.3%	0.0%
Columbia Plateau Steppe and Grassland	1123	8	7	3	37.5%	42.9%	0.9%	0.8%	-0.1%
North Pacific Lowland Riparian Forest and Shrubland	1156	8	8	6	75.0%	75.0%	0.9%	0.9%	0.0%
Rocky Mountain Montane Riparian Systems	1159	8	1	0	0.0%	0.0%	0.9%	0.1%	-0.8%
Mediterranean California Lower Montane Black Oak-Conifer Forest and Woodland	1030	7	0	0	0.0%		0.8%	0.0%	-0.8%
Northern Rocky Mountain Mesic Montane Mixed Conifer Forest	1047	7	11	5	71.4%	45.5%	0.8%	1.2%	0.4%

North Pacific Dry and Mesic Alpine Dwarf-Shrubland or Fell-field or Meadow	1068	7	5	2	28.6%	40.0%	0.8%	0.5%	-0.2%
Northern California Mesic Subalpine Woodland	1044	6	0	0	0.0%		0.7%	0.0%	-0.7%
Northern Rocky Mountain Subalpine Woodland and Parkland	1046	5	10	2	40.0%	20.0%	0.5%	1.1%	0.5%
North Pacific Broadleaf Landslide Forest and Shrubland	1063	5	0	0	0.0%		0.5%	0.0%	-0.5%
Inter-Mountain Basins Mixed Salt Desert Scrub	1081	5	2	2	40.0%	100.0%	0.5%	0.2%	-0.3%
Northern Rocky Mountain Montane-Foothill Deciduous Shrubland	1106	5	0	0	0.0%		0.5%	0.0%	-0.5%
North Pacific Wooded Volcanic Flowage	1173	5	8	3	60.0%	37.5%	0.5%	0.9%	0.3%

Total number of holdout plots = 919; Total number of holdout plots with agreement = 473; Overall agreement = 51.5%

Table 27: Northwest Super Zone Summary for Environmental Site Potential-NatureServe Similarity Groups

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
North Pacific Mesic Douglas Fir-Hemlock and Broadleaf Forest	2504	290	289	240	82.8%	83.0%	31.6%	31.5%	-0.1%
Northern Rocky Mountain Lower Montane and Foothill Forest and Woodland	2511	143	136	94	65.7%	69.1%	15.6%	14.8%	-0.8%
Klamath and Mediterranean California Montane Forest	2508	112	111	88	78.6%	79.3%	12.2%	12.1%	-0.1%
InterMountain Basins Pinyon-Juniper Woodland and Montane Sagebrush	2513	71	28	23	32.4%	82.1%	7.7%	3.1%	-4.7%
Inter-Mountain Basin Big Sagebrush and Desert Sagebrush	2615	43	84	32	74.4%	38.1%	4.7%	9.1%	4.5%
Pacific Coast Conifer (Redwood/Sitka Spruce/Western Hemlock)	2523	42	28	19	45.2%	67.9%	4.6%	3.1%	-1.5%
North Pacific Montane-Subalpine Mountain Hemlock and Mixed Conifer Woodland	2505	40	42	28	70.0%	66.7%	4.4%	4.6%	0.2%
Rocky Mountain Subalpine Forest and Woodland	2509	27	34	17	63.0%	50.0%	2.9%	3.7%	0.8%
Mediterranean California Upper Montane-Subalpine	2506	24	16	15	62.5%	93.8%	2.6%	1.7%	-0.9%

Forest and Chaparral									
Columbia Plateau Shrub and Low Sagebrush	2614	22	23	7	31.8%	30.4%	2.4%	2.5%	0.1%
InterMountain Basins Cool Desert Saline Shrubland	2609	21	11	11	52.4%	100.0%	2.3%	1.2%	-1.1%
Northern and Central Rocky Mountain Foothill Pine and Juniper	2524	16	29	3	18.8%	10.3%	1.7%	3.2%	1.4%
North Pacific and Californian Montane Riparian and Swamp	2518	14	46	9	64.3%	19.6%	1.5%	5.0%	3.5%
North Pacific Oak and Dry Conifer Woodland	2501	9	9	3	33.3%	33.3%	1.0%	1.0%	0.0%
Rocky Mountain and Intermountain Montane Riparian and Swamp	2519	9	15	4	44.4%	26.7%	1.0%	1.6%	0.7%
Mediterranean California Lower Montane and Mixed Oak Woodland	2522	8	2	0	0.0%	0.0%	0.9%	0.2%	-0.7%
Pacific Alpine Dwarf Shrubland	2610	7	3	1	14.3%	33.3%	0.8%	0.3%	-0.4%
North Pacific Montane Shrubland or Avalanche Chute	2613	6	0	0	0.0%		0.7%	0.0%	-0.7%

Total number of holdout plots = 919; Total number of holdout plots with agreement = 597; Overall agreement = 65.0%

Northwest Ecological Super Zone Systems not shown in summary tables (less than 5 plots in the product quality assessment data set)

Rocky Mountain Aspen Forest and Woodland	2011
Inter-Mountain Basins Montane Riparian Systems	2154
North Pacific Alpine and Subalpine Dry Grassland	2171
Mediterranean California Subalpine Woodland	2033
Rocky Mountain Lodgepole Pine Forest	2050
Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland	2062
Rocky Mountain Montane Riparian Systems	2159
Introduced Shrubland Vegetation	2186
Mediterranean California Mixed Oak Woodland	2029
Sierra Nevada Subalpine Lodgepole Pine Forest and Woodland	2058
East Cascades Oak-Ponderosa Pine Forest and Woodland	2060
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	2061
North Pacific Montane Shrubland	2084
Great Basin Semi-Desert Chaparral	2103
California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna	2114
Inter-Mountain Basins Semi-Desert Shrub-Steppe	2127
Northern Rocky Mountain Lower Montane-Foothill-Valley Grassland	2139
Rocky Mountain Subalpine/Upper Montane Riparian Systems	2160
Northern Rocky Mountain Foothill Conifer Wooded Steppe	2165

Northern Rocky Mountain Subalpine Deciduous Shrubland	2169
Sierran-Intermontane Desert Western White Pine-White Fir Woodland	2172
Juniperus occidentalis Woodland Alliance	2203
Rocky Mountain Alpine/Montane Sparsely Vegetated Systems	2006
North Pacific Oak Woodland	2008
Klamath-Siskiyou Lower Montane Serpentine Mixed Conifer Woodland	2021
California Montane Jeffrey Pine-(Ponderosa Pine) Woodland	2031
Columbia Plateau Scabland Shrubland	2065
North Pacific Avalanche Chute Shrubland	2083
Northern Rocky Mountain Subalpine-Upper Montane Grassland	2140
Rocky Mountain Dry Turf	2144
Pseudotsuga menziesii-Quercus garryana Woodland Alliance	2200
Quercus garryana Forest Alliance	2201
Juniperus occidentalis Wooded Herbaceous Alliance	2202
Tsuga mertensiana-Abies amabilis Woodland Alliance	2205
Abies grandis Forest Alliance	2232
North Pacific Sparsely Vegetated Systems	2003
Klamath-Siskiyou Upper Montane Serpentine Mixed Conifer Woodland	2022
California Montane Riparian Systems(Tree)	2152
North Pacific Swamp Systems(Tree)	2157
Introduced Upland Vegetation - Annual and Biennial Forbland	2183
Artemisia tridentata ssp. vaseyana Shrubland Alliance	2220

Pacific Southwest (Map Zones 3, 4, 5, 6)

Table 28: Pacific Southwest Super Zone Summary for Existing Vegetation Type-Ecological Systems

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Mediterranean California Mesic Mixed Conifer Forest and Woodland	2028	68	54	33	48.5%	61.1%	24.4%	19.4%	-5.0%
Mediterranean California Red Fir Forest	2032	29	47	21	72.4%	44.7%	10.4%	16.9%	6.5%
Mediterranean California Dry-Mesic Mixed Conifer Forest and Wood	2027	26	22	11	42.3%	50.0%	9.3%	7.9%	-1.4%
Mediterranean California Mixed Evergreen Forest	2043	18	16	7	38.9%	43.8%	6.5%	5.7%	-0.7%
Southern California Dry-Mesic Chaparral	2110	17	13	9	52.9%	69.2%	6.1%	4.7%	-1.4%
California Montane Woodland and Chaparral	2098	14	9	1	7.1%	11.1%	5.0%	3.2%	-1.8%
Southern California Coastal Scrub	2092	10	11	6	60.0%	54.6%	3.6%	3.9%	0.4%
California Mesic Chaparral	2097	10	2	0	0.0%	0.0%	3.6%	0.7%	-2.9%
Great Basin Pinyon-Juniper Woodland	2019	8	3	3	37.5%	100.0%	2.9%	1.1%	-1.8%
California Montane Jeffrey Pine-(Ponderosa Pine) Woodland	2031	8	11	1	12.5%	9.1%	2.9%	3.9%	1.1%
Northern California Coastal Scrub	2128	7	6	6	85.7%	100.0%	2.5%	2.2%	-0.4%
California Montane Riparian Systems(Tree)	2152	7	5	1	14.3%	20.0%	2.5%	1.8%	-0.7%
Mediterranean California Mixed Oak Woodland	2029	6	4	1	16.7%	25.0%	2.2%	1.4%	-0.7%
Southern California Oak Woodland and Savanna	2118	6	3	2	33.3%	66.7%	2.2%	1.1%	-1.1%

Total number of holdout plots = 279; Total number of holdout plots with agreement = 109; Overall agreement = 39.1%

Table 29: Pacific Southwest Super Zone Summary for Existing Vegetation Type-Ecological Systems, 5x5 Spatial Window

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Mediterranean California Mesic Mixed Conifer Forest and Woodland	2028	68	59	39	57.4%	66.1%	24.5%	21.2%	-3.2%
Mediterranean California Red Fir Forest	2032	29	49	22	75.9%	44.9%	10.4%	17.6%	7.2%

Mediterranean California Dry-Mesic Mixed Conifer Forest and Wood	2027	26	23	12	46.2%	52.2%	9.4%	8.3%	-1.1%
Mediterranean California Mixed Evergreen Forest	2043	18	18	9	50.0%	50.0%	6.5%	6.5%	0.0%
Southern California Dry-Mesic Chaparral	2110	17	12	9	52.9%	75.0%	6.1%	4.3%	-1.8%
California Montane Woodland and Chaparral	2098	14	9	1	7.1%	11.1%	5.0%	3.2%	-1.8%
Southern California Coastal Scrub	2092	10	15	9	90.0%	60.0%	3.6%	5.4%	1.8%
California Mesic Chaparral	2097	10	5	0	0.0%	0.0%	3.6%	1.8%	-1.8%
Great Basin Pinyon-Juniper Woodland	2019	8	2	2	25.0%	100.0%	2.9%	0.7%	-2.2%
California Montane Jeffrey Pine-(Ponderosa Pine) Woodland	2031	8	9	1	12.5%	11.1%	2.9%	3.2%	0.4%
Northern California Coastal Scrub	2128	7	6	6	85.7%	100.0%	2.5%	2.2%	-0.4%
California Montane Riparian Systems(Tree)	2152	7	2	0	0.0%	0.0%	2.5%	0.7%	-1.8%
Mediterranean California Mixed Oak Woodland	2029	6	5	1	16.7%	20.0%	2.2%	1.8%	-0.4%
Southern California Oak Woodland and Savanna	2118	6	3	2	33.3%	66.7%	2.2%	1.1%	-1.1%

Total number of holdout plots = 278; Total number of holdout plots with agreement = 121; Overall agreement = 43.5%

Table 30: Pacific Southwest Super Zone Summary for Existing Vegetation Type-Nature Serve Similarity Types

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Klamath and Mediterranean California Montane Forest	2508	126	119	95	75.4%	79.8%	45.3%	42.8%	-2.5%
Mediterranean California Upper Montane-Subalpine Forest and Chaparral	2506	48	61	34	70.8%	55.7%	17.3%	21.9%	4.7%
Southern California Coastal Scrub	2601	27	24	15	55.6%	62.5%	9.7%	8.6%	-1.1%
California Mesic to Xeric Chaparral and North Coast Scrub	2602	17	9	6	35.3%	66.7%	6.1%	3.2%	-2.9%
California Oak Savanna and Klamath Serpentine Chaparral	2701	12	9	4	33.3%	44.4%	4.3%	3.2%	-1.1%
Mediterranean California Lower Montane and Mixed Oak Woodland	2522	11	21	3	27.3%	14.3%	4.0%	7.6%	3.6%
InterMountain Basins Pinyon-Juniper Woodland and Montane Sagebrush	2513	9	5	4	44.4%	80.0%	3.2%	1.8%	-1.4%

North Pacific and Californian Montane Riparian and Swamp	2518	8	5	1	12.5%	20.0%	2.9%	1.8%	-1.1%

Total number of holdout plots = 278; Total number of holdout plots with agreement = 166; Overall agreement = 59.7%

Table 31: Pacific Southwest Super Zone Summary for Existing Vegetation Type-SAF/SRM Types

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
SAF 211: White Fir	1211	68	54	33	48.5%	61.1%	24.6%	19.5%	-5.1%
SAF 207: Red Fir	1207	29	47	21	72.4%	44.7%	10.5%	17.0%	6.5%
SAF 243: Sierra Nevada Mixed Conifer	1243	28	22	11	39.3%	50.0%	10.1%	7.9%	-2.2%
SAF 234: Douglas-Fir-Tanoak-Pacific Madrone	1234	18	16	7	38.9%	43.8%	6.5%	5.8%	-0.7%
SRM 206: Chamise Chaparral	2206	17	13	9	52.9%	69.2%	6.1%	4.7%	-1.4%
SRM 209: Montane Shrubland	2209	14	10	1	7.1%	10.0%	5.1%	3.6%	-1.4%
SRM 205: Coastal Sage Shrub	2205	10	11	6	60.0%	54.6%	3.6%	4.0%	0.4%
SRM 207: Scrub Oak Mixed Chaparral	2207	10	2	0	0.0%	0.0%	3.6%	0.7%	-2.9%
SAF 246: California Black Oak	1246	9	4	2	22.2%	50.0%	3.3%	1.4%	-1.8%
SAF 247: Jeffrey Pine	1247	8	11	1	12.5%	9.1%	2.9%	4.0%	1.1%
SRM 203: Riparian Woodland	2203	8	5	1	12.5%	20.0%	2.9%	1.8%	-1.1%
SRM 412: Juniper-Pinyon Woodland	2412	8	3	3	37.5%	100.0%	2.9%	1.1%	-1.8%
SRM 204: Northern Coastal Shrub	2204	7	6	6	85.7%	100.0%	2.5%	2.2%	-0.4%
SAF 255: California Coast Live Oak	1255	6	3	2	33.3%	66.7%	2.2%	1.1%	-1.1%

Total number of holdout plots = 277; Total number of holdout plots with agreement = 109; Overall agreement = 39.4%

Table 32: Pacific Southwest Super Zone Summary for Existing Vegetation Type-SAF/SRM Type Groups

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Fir-Spruce	117	131	126	102	77.9%	81.0%	47.3%	45.5%	-1.8%
Chaparral	240	49	25	14	28.6%	56.0%	17.7%	9.0%	-8.7%
Western Hardwoods	120	25	37	13	52.0%	35.1%	9.0%	13.4%	4.3%
Douglas-Fir	111	18	22	8	44.4%	36.4%	6.5%	7.9%	1.4%
Coastal Scrub	220	17	17	12	70.6%	70.6%	6.1%	6.1%	0.0%
Ponderosa Pine	113	8	11	1	12.5%	9.1%	2.9%	4.0%	1.1%
Pinyon-Juniper	241	8	3	3	37.5%	100.0%	2.9%	1.1%	-1.8%
Riparian Woodland	243	8	5	1	12.5%	20.0%	2.9%	1.8%	-1.1%
Lodgepole Pine	119	5	14	0	0.0%	0.0%	1.8%	5.1%	3.3%

Total number of holdout plots = 277; Total number of holdout plots with agreement = 155; Overall agreement = 56.0%

Table 33: Pacific Southwest Super Zone Summary for Existing Vegetation Type-Lifeforms

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Forest and Woodland	20	197	210	177	89.9%	84.3%	71.1%	75.8%	4.7%
Shrubland	50	58	40	26	44.8%	65.0%	20.9%	14.4%	-6.5%
Savanna	90	12	8	4	33.3%	50.0%	4.3%	2.9%	-1.4%
Steppe	60	7	6	6	85.7%	100.0%	2.5%	2.2%	-0.4%

Total number of holdout plots = 277; Total number of holdout plots with agreement = 214; Overall agreement = 77.3%

Table 34: Pacific Southwest Super Zone Summary for Environmental Site Potential-Ecological Systems

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Mediterranean California Mesic Mixed Conifer Forest and Woodland	1028	45	66	32	71.1%	48.5%	12.3%	18.0%	5.7%
Southern California Dry-Mesic Chaparral	1110	45	33	22	48.9%	66.7%	12.3%	9.0%	-3.3%
California Mesic Chaparral	1097	35	8	3	8.6%	37.5%	9.5%	2.2%	-7.4%
Mediterranean California Red Fir Forest	1032	32	45	30	93.8%	66.7%	8.7%	12.3%	3.5%
Mediterranean California Dry-Mesic Mixed Conifer Forest and Woodland	1027	24	21	5	20.8%	23.8%	6.5%	5.7%	-0.8%
California Montane Riparian Systems	1152	21	9	3	14.3%	33.3%	5.7%	2.5%	-3.3%
Southern California Coastal Scrub	1092	20	34	17	85.0%	50.0%	5.5%	9.3%	3.8%
Mediterranean California Mixed Evergreen Forest	1043	15	12	8	53.3%	66.7%	4.1%	3.3%	-0.8%
Southern California Oak Woodland and Savanna	1118	15	17	6	40.0%	35.3%	4.1%	4.6%	0.5%
Mediterranean California Mixed Oak Woodland	1029	13	6	1	7.7%	16.7%	3.5%	1.6%	-1.9%
California Montane Jeffrey Pine(-Ponderosa Pine) Woodland	1031	10	8	4	40.0%	50.0%	2.7%	2.2%	-0.5%
Northern and Central California Dry-Mesic Chaparral	1105	10	10	1	10.0%	10.0%	2.7%	2.7%	0.0%
California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna	1114	9	15	8	88.9%	53.3%	2.5%	4.1%	1.6%
Northern California Coastal Scrub	1128	9	5	5	55.6%	100.0%	2.5%	1.4%	-1.1%

Great Basin Pinyon-Juniper Woodland	1019	7	4	4	57.1%	100.0%	1.9%	1.1%	-0.8%
Klamath-Siskiyou Lower Montane Serpentine Mixed Conifer Woodland	1021	6	4	1	16.7%	25.0%	1.6%	1.1%	-0.5%
California Montane Woodland and Chaparral	1098	6	0	0	0.0%		1.6%	0.0%	-1.6%
California Central Valley Mixed Oak Savanna	1112	6	3	2	33.3%	66.7%	1.6%	0.8%	-0.8%
Mediterranean California Lower Montane Black Oak-Conifer Forest and Woodland	1030	5	2	0	0.0%	0.0%	1.4%	0.5%	-0.8%
Sonora-Mojave Semi-Desert Chaparral	1108	5	7	3	60.0%	42.9%	1.4%	1.9%	0.5%

Total number of holdout plots = 367; Total number of holdout plots with agreement = 160; Overall agreement = 43.6%

Table 35: Pacific Southwest Super Zone Summary for Environmental Site Potential-Ecological Systems, 5x5 Spatial Window

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Mediterranean California Mesic Mixed Conifer Forest and Woodland	1028	45	65	33	73.3%	50.8%	12.3%	17.7%	5.5%
Southern California Dry-Mesic Chaparral	1110	45	39	26	57.8%	66.7%	12.3%	10.6%	-1.6%
California Mesic Chaparral	1097	35	4	1	2.9%	25.0%	9.5%	1.1%	-8.5%
Mediterranean California Red Fir Forest	1032	32	44	30	93.8%	68.2%	8.7%	12.0%	3.3%
Mediterranean California Dry-Mesic Mixed Conifer Forest and Woodland	1027	24	22	7	29.2%	31.8%	6.5%	6.0%	-0.5%
California Montane Riparian Systems	1152	21	7	3	14.3%	42.9%	5.7%	1.9%	-3.8%
Southern California Coastal Scrub	1092	20	34	17	85.0%	50.0%	5.5%	9.3%	3.8%
Mediterranean California Mixed Evergreen Forest	1043	15	12	8	53.3%	66.7%	4.1%	3.3%	-0.8%
Southern California Oak Woodland and Savanna	1118	15	15	6	40.0%	40.0%	4.1%	4.1%	0.0%
Mediterranean California Mixed Oak Woodland	1029	13	5	2	15.4%	40.0%	3.5%	1.4%	-2.2%
California Montane Jeffrey Pine(-Ponderosa Pine) Woodland	1031	10	10	5	50.0%	50.0%	2.7%	2.7%	0.0%
Northern and Central California Dry-Mesic Chaparral	1105	10	10	1	10.0%	10.0%	2.7%	2.7%	0.0%

California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna	1114	9	16	9	100.0%	56.3%	2.5%	4.4%	1.9%
Northern California Coastal Scrub	1128	9	5	5	55.6%	100.0%	2.5%	1.4%	-1.1%
Great Basin Pinyon-Juniper Woodland	1019	7	5	4	57.1%	80.0%	1.9%	1.4%	-0.5%
Klamath-Siskiyou Lower Montane Serpentine Mixed Conifer Woodland	1021	6	4	1	16.7%	25.0%	1.6%	1.1%	-0.5%
California Montane Woodland and Chaparral	1098	6	0	0	0.0%		1.6%	0.0%	-1.6%
California Central Valley Mixed Oak Savanna	1112	6	4	2	33.3%	50.0%	1.6%	1.1%	-0.5%
Mediterranean California Lower Montane Black Oak-Conifer Forest and Woodland	1030	5	2	0	0.0%	0.0%	1.4%	0.5%	-0.8%
Sonora-Mojave Semi-Desert Chaparral	1108	5	8	4	80.0%	50.0%	1.4%	2.2%	0.8%

Total number of holdout plots = 367; Total number of holdout plots with agreement = 170; Overall agreement = 46.3%

Table 36: Pacific Southwest Super Zone Summary for Environmental Site Potential-NatureServe Similarity Groups

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Klamath and Mediterranean California Montane Forest	2508	103	119	81	78.6%	68.1%	28.2%	32.6%	4.4%
Southern California Coastal Scrub	2601	65	67	44	67.7%	65.7%	17.8%	18.4%	0.6%
California Mesic to Xeric Chaparral and North Coast Scrub	2602	57	24	10	17.5%	41.7%	15.6%	6.6%	-9.0%
Mediterranean California Upper Montane-Subalpine Forest and Chaparral	2506	42	48	34	81.0%	70.8%	11.5%	13.2%	1.6%
California Oak Savanna and Klamath Serpentine Chaparral	2701	33	35	16	48.5%	45.7%	9.0%	9.6%	0.6%
North Pacific and Californian Montane Riparian and Swamp	2518	21	11	4	19.1%	36.4%	5.8%	3.0%	-2.7%
Mediterranean California Lower Montane and Mixed Oak Woodland	2522	19	33	4	21.1%	12.1%	5.2%	9.0%	3.8%
InterMountain Basins Pinyon-Juniper Woodland and Montane Sagebrush	2513	9	4	4	44.4%	100.0%	2.5%	1.1%	-1.4%

Southwest Semi-Desert Chaparral	2607	7	7	3	42.9%	42.9%	1.9%	1.9%	0.0%

Total number of holdout plots = 365; Total number of holdout plots with agreement = 202; Overall agreement = 55.3%

Pacific Southwest SuperZone Ecological Systems not shown in summary tables (less than 5 plots in the product quality assessment data set)

Klamath-Siskiyou Upper Montane Serpentine Mixed Conifer Woodland	2022
Mediterranean California Subalpine Woodland	2033
California Central Valley Mixed Oak Savanna	2112
Mediterranean California Lower Montane Black Oak-Conifer Forest and Wood	2030
Inter-Mountain Basins Montane Riparian Systems	2154
Central and Southern California Mixed Evergreen Woodland	2014
California Coastal Redwood Forest	2015
Northern California Mesic Subalpine Woodland	2044
Sonora-Mojave Semi-Desert Chaparral	2108
California Lower Montane Blue Oak-Foothill Pine Woodland and Savanna	2114
Pacific Coastal Marsh Systems	2163
Introduced Upland Vegetation - Annual Grassland	2181
Sequoiadendron giganteum Forest Alliance	2231
North Pacific Oak Woodland	2008
Rocky Mountain Aspen Forest and Woodland	2011
Sierra Nevada Subalpine Lodgepole Pine Forest and Woodland	2058
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	2061
Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland	2062
Inter-Mountain Basins Big Sagebrush Shrubland	2080
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	2087
Great Basin Semi-Desert Chaparral	2103
North American Warm Desert Riparian Systems	2155
California Annual Grassland	2184
Introduced Shrubland Vegetation	2186
Klamath-Siskiyou Lower Montane Serpentine Mixed Conifer Woodland	2021
Mediterranean California Mesic Serpentine Woodland and Chaparral	2034
Sonora-Mojave Mixed Salt Desert Scrub	2088
California Xeric Serpentine Chaparral	2099
Inter-Mountain Basins Montane Sagebrush Steppe	2126
Mediterranean California Subalpine Meadow	2137
North Pacific Montane Grassland	2138
Introduced Upland Vegetation - Perennial Grassland and Forbland	2182
Artemisia tridentata ssp. vaseyana Shrubland Alliance	2220
Pinus sabiniana Woodland Alliance	2230

Southwest (Map Zones 14, 15, 23, 24, 28)

Table 37: Southwest Super Zone Summary for Existing Vegetation Type-Ecological Systems

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Colorado Plateau Pinyon-Juniper Woodland	2016	104	89	68	65.4%	76.4%	18.7%	16.0%	-2.7%
Southern Rocky Mountain Ponderosa Pine Woodland	2054	45	55	29	64.4%	52.7%	8.1%	9.9%	1.8%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	2055	34	39	27	79.4%	69.2%	6.1%	7.0%	0.9%
Inter-Mountain Basins Big Sagebrush Shrubland	2080	31	55	26	83.9%	47.3%	5.6%	9.9%	4.3%
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodl	2051	25	18	10	40.0%	55.6%	4.5%	3.2%	-1.3%
Rocky Mountain Aspen Forest and Woodland	2011	21	24	9	42.9%	37.5%	3.8%	4.3%	0.5%
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	2061	19	22	4	21.1%	18.2%	3.4%	4.0%	0.5%
Inter-Mountain Basins Sparsely Vegetated Systems	2001	18	4	1	5.6%	25.0%	3.2%	0.7%	-2.5%
Madrean Lower Montane Pine-Oak Forest and Woodland	2024	16	5	2	12.5%	40.0%	2.9%	0.9%	-2.0%
North American Warm Desert Sparsely Vegetated Systems	2004	12	1	0	0.0%	0.0%	2.2%	0.2%	-2.0%
Madrean Pinyon-Juniper Woodland	2025	12	18	10	83.3%	55.6%	2.2%	3.2%	1.1%
Quercus gambelii Shrubland Alliance	2217	12	19	6	50.0%	31.6%	2.2%	3.4%	1.3%
Rocky Mountain Lodgepole Pine Forest	2050	11	7	5	45.5%	71.4%	2.0%	1.3%	-0.7%
Rocky Mountain Lower Montane-Foothill Shrubland	2086	11	9	0	0.0%	0.0%	2.0%	1.6%	-0.4%
Mogollon Chaparral	2104	11	12	5	45.5%	41.7%	2.0%	2.2%	0.2%
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	2052	10	12	3	30.0%	25.0%	1.8%	2.2%	0.4%
Sonoran Paloverde-Mixed Cacti Desert Scrub	2109	10	10	6	60.0%	60.0%	1.8%	1.8%	0.0%
Great Basin Pinyon-Juniper Woodland	2019	9	9	3	33.3%	33.3%	1.6%	1.6%	0.0%

Inter-Mountain Basins Mixed Salt Desert Scrub	2081	8	16	2	25.0%	12.5%	1.4%	2.9%	1.4%
Inter-Mountain Basins Semi-Desert Shrub-Steppe	2127	8	4	3	37.5%	75.0%	1.4%	0.7%	-0.7%
Inter-Mountain Basins Semi-Desert Grassland	2135	8	11	2	25.0%	18.2%	1.4%	2.0%	0.5%
Western Great Plains Floodplain Systems	2162	8	0	0	0.0%		1.4%	0.0%	-1.4%
Mojave Mid-Elevation Mixed Desert Scrub	2082	7	5	1	14.3%	20.0%	1.3%	0.9%	-0.4%
Coleogyne ramosissima Shrubland Alliance	2210	7	12	6	85.7%	50.0%	1.3%	2.2%	0.9%
Rocky Mountain Subalpine-Montane Mesic Meadow	2145	6	1	1	16.7%	100.0%	1.1%	0.2%	-0.9%
Inter-Mountain Basins Greasewood Flat	2153	6	6	2	33.3%	33.3%	1.1%	1.1%	0.0%
Quercus turbinella Shrubland Alliance	2215	6	5	2	33.3%	40.0%	1.1%	0.9%	-0.2%
Artemisia tridentata ssp. vaseyana Shrubland Alliance	2220	6	5	0	0.0%	0.0%	1.1%	0.9%	-0.2%
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	2107	5	0	0	0.0%		0.9%	0.0%	-0.9%

Total number of holdout plots = 555; Total number of holdout plots with agreement = 244; Overall agreement = 44.0%

Table 38: Southwest Super Zone Summary for Existing Vegetation Type-Ecological Systems, 5x5 Spatial Window

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Colorado Plateau Pinyon-Juniper Woodland	2016	103	87	69	67.0%	79.3%	18.7%	15.8%	-2.9%
Southern Rocky Mountain Ponderosa Pine Woodland	2054	45	62	31	68.9%	50.0%	8.2%	11.3%	3.1%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	2055	34	40	27	79.4%	67.5%	6.2%	7.3%	1.1%
Inter-Mountain Basins Big Sagebrush Shrubland	2080	31	65	28	90.3%	43.1%	5.6%	11.8%	6.2%
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodl	2051	25	18	10	40.0%	55.6%	4.5%	3.3%	-1.3%
Rocky Mountain Aspen Forest and Woodland	2011	21	23	12	57.1%	52.2%	3.8%	4.2%	0.4%

Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	2061	19	18	3	15.8%	16.7%	3.5%	3.3%	-0.2%
Inter-Mountain Basins Sparsely Vegetated Systems	2001	18	3	1	5.6%	33.3%	3.3%	0.5%	-2.7%
Madrean Lower Montane Pine-Oak Forest and Woodland	2024	16	6	3	18.8%	50.0%	2.9%	1.1%	-1.8%
North American Warm Desert Sparsely Vegetated Systems	2004	12	0	0	0.0%		2.2%	0.0%	-2.2%
Madrean Pinyon-Juniper Woodland	2025	12	19	9	75.0%	47.4%	2.2%	3.5%	1.3%
Rocky Mountain Lodgepole Pine Forest	2050	11	7	5	45.5%	71.4%	2.0%	1.3%	-0.7%
Rocky Mountain Lower Montane-Foothill Shrubland	2086	11	4	0	0.0%	0.0%	2.0%	0.7%	-1.3%
Mogollon Chaparral	2104	11	14	4	36.4%	28.6%	2.0%	2.5%	0.5%
Quercus gambelii Shrubland Alliance	2217	11	19	7	63.6%	36.8%	2.0%	3.5%	1.5%
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	2052	10	15	6	60.0%	40.0%	1.8%	2.7%	0.9%
Sonoran Paloverde-Mixed Cacti Desert Scrub	2109	10	12	8	80.0%	66.7%	1.8%	2.2%	0.4%
Great Basin Pinyon-Juniper Woodland	2019	9	6	3	33.3%	50.0%	1.6%	1.1%	-0.5%
Inter-Mountain Basins Mixed Salt Desert Scrub	2081	8	17	4	50.0%	23.5%	1.5%	3.1%	1.6%
Inter-Mountain Basins Semi-Desert Shrub-Steppe	2127	8	1	1	12.5%	100.0%	1.5%	0.2%	-1.3%
Inter-Mountain Basins Semi-Desert Grassland	2135	8	7	2	25.0%	28.6%	1.5%	1.3%	-0.2%
Western Great Plains Floodplain Systems	2162	8	0	0	0.0%		1.5%	0.0%	-1.5%
Mojave Mid-Elevation Mixed Desert Scrub	2082	7	4	1	14.3%	25.0%	1.3%	0.7%	-0.5%
Coleogyne ramosissima Shrubland Alliance	2210	7	13	6	85.7%	46.2%	1.3%	2.4%	1.1%
Rocky Mountain Subalpine-Montane Mesic Meadow	2145	6	1	1	16.7%	100.0%	1.1%	0.2%	-0.9%
Inter-Mountain Basins Greasewood Flat	2153	6	5	2	33.3%	40.0%	1.1%	0.9%	-0.2%
Quercus turbinella Shrubland Alliance	2215	6	6	2	33.3%	33.3%	1.1%	1.1%	0.0%

Artemisia tridentata ssp. vaseyana Shrubland Alliance	2220	6	5	1	16.7%	20.0%	1.1%	0.9%	-0.2%
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	2107	5	0	0	0.0%		0.9%	0.0%	-0.9%

Total number of holdout plots = 551; Total number of holdout plots with agreement = 257; Overall agreement = 46.6%

Table 39: Southwest Super Zone Summary for Existing Vegetation Type-Nature Serve Similarity Types

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
InterMountain Basins Pinyon-Juniper Woodland and Montane Sagebrush	2513	129	104	77	59.7%	74.0%	22.6%	18.3%	-4.4%
Southern Rocky Mountain Ponderosa Pine and Dry-Mesic Woodland	2512	86	86	60	69.8%	69.8%	15.1%	15.1%	0.0%
Rocky Mountain Subalpine Forest and Woodland	2509	53	47	40	75.5%	85.1%	9.3%	8.3%	-1.1%
Rocky Mountain and Intermountain Aspen-Mixed Conifer Forest	2521	40	45	20	50.0%	44.4%	7.0%	7.9%	0.9%
Inter-Mountain Basin Big Sagebrush and Desert Sagebrush	2615	34	58	26	76.5%	44.8%	6.0%	10.2%	4.2%
Southern Rocky Mountain Montane Shrubland and Grassland	2603	29	28	12	41.4%	42.9%	5.1%	4.9%	-0.2%
InterMountain Basins Cool Desert Shrubland and Steppe	2608	29	31	13	44.8%	41.9%	5.1%	5.4%	0.4%
Sonora-Mojave Desert Scrub	2605	20	29	17	85.0%	58.6%	3.5%	5.1%	1.6%
Southwest Semi-Desert Chaparral	2607	19	18	9	47.4%	50.0%	3.3%	3.2%	-0.2%
Inter-Mountain Basins Sparsely Vegetated Systems	3001	18	4	1	5.6%	25.0%	3.2%	0.7%	-2.5%
Madrean Encinal and Pinyon-Juniper Woodland	2502	17	23	11	64.7%	47.8%	3.0%	4.0%	1.1%
Madrean Montane Pine-Oak and Mixed Conifer Woodland	2503	17	5	2	11.8%	40.0%	3.0%	0.9%	-2.1%
InterMountain Basins Cool Desert Saline Shrubland	2609	17	26	8	47.1%	30.8%	3.0%	4.6%	1.6%

Rocky Mountain Alpine Turf and Subalpine Meadow	2807	14	7	6	42.9%	85.7%	2.5%	1.2%	-1.2%
North American Warm Desert Sparsely Vegetated Systems	3003	12	1	0	0.0%	0.0%	2.1%	0.2%	-1.9%
Rocky Mountain and Intermountain Montane Riparian and Swamp	2519	10	14	4	40.0%	28.6%	1.8%	2.5%	0.7%
Western Great Plains Floodplain Systems	2520	8	0	0	0.0%		1.4%	0.0%	-1.4%

Total number of holdout plots = 570; Total number of holdout plots with agreement = 310; Overall agreement = 54.4%

Table 40: Southwest Super Zone Summary for Existing Vegetation Type-SAF/SRM Types

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
SRM 504: Juniper-Pinyon Pine Woodland	2504	120	106	84	70.0%	79.3%	21.8%	19.3%	-2.6%
SAF 237: Interior Ponderosa Pine	1237	48	55	31	64.6%	56.4%	8.7%	10.0%	1.3%
SAF 217: Aspen	1217	39	45	20	51.3%	44.4%	7.1%	8.2%	1.1%
SRM 403: Wyoming Big Sagebrush	2403	39	59	30	76.9%	50.9%	7.1%	10.7%	3.6%
SAF 206: Engelmann Spruce-Subalpine Fir	1206	35	39	27	77.1%	69.2%	6.4%	7.1%	0.7%
LF 33: Sparsely Vegetated	3133	32	5	1	3.1%	20.0%	5.8%	0.9%	-4.9%
SAF 210: Interior Douglas-Fir	1210	25	18	10	40.0%	55.6%	4.6%	3.3%	-1.3%
SRM 503: Arizona Chaparral	2503	19	18	9	47.4%	50.0%	3.5%	3.3%	-0.2%
SAF 241: Western Live Oak	1241	18	9	5	27.8%	55.6%	3.3%	1.6%	-1.6%
SRM 413: Gambel Oak	2413	17	19	10	58.8%	52.6%	3.1%	3.5%	0.4%
SRM 212: Blackbush	2212	14	17	7	50.0%	41.2%	2.6%	3.1%	0.6%
SAF 211: White Fir	1211	12	12	4	33.3%	33.3%	2.2%	2.2%	0.0%
SAF 218: Lodgepole Pine	1218	11	7	5	45.5%	71.4%	2.0%	1.3%	-0.7%
SRM 412: Juniper-Pinyon Woodland	2412	10	9	3	30.0%	33.3%	1.8%	1.6%	-0.2%
SRM 421: Chokecherry-Serviceberry-Rose	2421	10	9	0	0.0%	0.0%	1.8%	1.6%	-0.2%
SRM 507: Palo Verde-Cactus	2507	10	10	6	60.0%	60.0%	1.8%	1.8%	0.0%
SRM 402: Mountain Big Sagebrush	2402	9	5	0	0.0%	0.0%	1.6%	0.9%	-0.7%
SRM 414: Salt Desert Shrub	2414	9	16	3	33.3%	18.8%	1.6%	2.9%	1.3%
SAF 236: Bur Oak	1236	8	0	0	0.0%		1.5%	0.0%	-1.5%

SRM 502: Grama-Galetta	2502	8	11	2	25.0%	18.2%	1.5%	2.0%	0.6%
SRM 501: Saltbush-Greasewood	2501	7	10	4	57.1%	40.0%	1.3%	1.8%	0.6%
SRM 409: Tall Forb	2409	6	1	1	16.7%	100.0%	1.1%	0.2%	-0.9%
SRM 410: Alpine Rangeland	2410	6	6	5	83.3%	83.3%	1.1%	1.1%	0.0%
SAF 209: Bristlecone Pine	1209	5	1	1	20.0%	100.0%	0.9%	0.2%	-0.7%
SRM 422: Riparian	2422	5	8	2	40.0%	25.0%	0.9%	1.5%	0.6%

Total number of holdout plots = 550; Total number of holdout plots with agreement = 274; Overall agreement = 49.8%

Table 41: Southwest Super Zone Summary for Existing Vegetation Type-SAF/SRM Type Groups

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Pinyon-Juniper	241	131	116	90	68.7%	77.6%	23.7%	20.9%	-2.7%
Western Hardwoods	120	69	60	30	43.5%	50.0%	12.5%	10.8%	-1.6%
Sagebrush	222	51	67	34	66.7%	50.8%	9.2%	12.1%	2.9%
Ponderosa Pine	113	48	56	31	64.6%	55.4%	8.7%	10.1%	1.4%
Fir-Spruce	117	47	51	34	72.3%	66.7%	8.5%	9.2%	0.7%
Chaparral	240	37	38	20	54.1%	52.6%	6.7%	6.9%	0.2%
Sparsely Vegetaed	333	33	5	1	3.0%	20.0%	6.0%	0.9%	-5.1%
Douglas-Fir	111	25	18	10	40.0%	55.6%	4.5%	3.3%	-1.3%
Lodgepole Pine	119	17	8	6	35.3%	75.0%	3.1%	1.4%	-1.6%
Blackbrush	224	17	21	8	47.1%	38.1%	3.1%	3.8%	0.7%
Salt Desert Shrub	223	16	26	9	56.3%	34.6%	2.9%	4.7%	1.8%
Alder/Maple	221	12	9	0	0.0%	0.0%	2.2%	1.6%	-0.5%
Alpine Dwarf Shrubland	260	12	7	6	50.0%	85.7%	2.2%	1.3%	-0.9%
Desert grasslands	213	11	12	2	18.2%	16.7%	2.0%	2.2%	0.2%
Cacti Desert Shrub	230	10	10	6	60.0%	60.0%	1.8%	1.8%	0.0%
Riparian Woodland	243	6	22	2	33.3%	9.1%	1.1%	4.0%	2.9%

Total number of holdout plots = 554; Total number of holdout plots with agreement = 292; Overall agreement = 52.7%

Table 42: Southwest Super Zone Summary for Existing Vegetation Type-Lifeforms

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Forest and Woodland	20	333	320	281	84.4%	87.8%	60.6%	58.2%	-2.4%
Shrubland	50	139	191	112	80.6%	58.6%	25.3%	34.7%	9.5%
Barren	30	32	5	1	3.1%	20.0%	5.8%	0.9%	-4.9%
Herbaceous	40	25	23	11	44.0%	47.8%	4.6%	4.2%	-0.4%
Steppe	60	14	5	3	21.4%	60.0%	2.6%	0.9%	-1.6%
Savanna	90	7	1	0	0.0%	0.0%	1.3%	0.2%	-1.1%

Total number of holdout plots = 550; Total number of holdout plots with agreement = 408; Overall agreement = 74.2%

Table 43: Southwest Super Zone Summary for Environmental Site Potential-Ecological Systems

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	Code	LFRDB Plots	Mapped Plots	Plots with Agreement	Producer Agreement	User Agreement	LFRDB Percent	Mapped Percent	DIFF
Colorado Plateau Pinyon-Juniper Woodland	1016	105	113	80	76.2%	70.8%	18.3%	19.7%	1.4%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	1055	62	73	49	79.0%	67.1%	10.8%	12.7%	1.9%
Southern Rocky Mountain Ponderosa Pine Woodland	1054	50	55	26	52.0%	47.3%	8.7%	9.6%	0.9%
Inter-Mountain Basins Big Sagebrush Shrubland	1080	27	29	18	66.7%	62.1%	4.7%	5.1%	0.4%
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland	1051	24	18	8	33.3%	44.4%	4.2%	3.1%	-1.1%
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	1052	22	23	11	50.0%	47.8%	3.8%	4.0%	0.2%
Mogollon Chaparral	1104	19	9	5	26.3%	55.6%	3.3%	1.6%	-1.7%
Rocky Mountain Aspen Forest and Woodland	1011	18	8	5	27.8%	62.5%	3.1%	1.4%	-1.7%
Inter-Mountain Basins Semi-Desert Grassland	1135	18	4	2	11.1%	50.0%	3.1%	0.7%	-2.4%
Madrean Pinyon-Juniper Woodland	1025	16	26	12	75.0%	46.2%	2.8%	4.5%	1.7%
Inter-Mountain Basins Mixed Salt Desert Scrub	1081	15	26	9	60.0%	34.6%	2.6%	4.5%	1.9%
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	1107	14	15	9	64.3%	60.0%	2.4%	2.6%	0.2%
Rocky Mountain Lodgepole Pine Forest	1050	12	9	3	25.0%	33.3%	2.1%	1.6%	-0.5%
Madrean Lower Montane Pine-Oak Forest and Woodland	1024	10	6	2	20.0%	33.3%	1.7%	1.1%	-0.7%
Rocky Mountain Lower Montane-Foothill Shrubland	1086	10	3	0	0.0%	0.0%	1.7%	0.5%	-1.2%
Colorado Plateau Pinyon-Juniper Shrubland	1102	10	2	1	10.0%	50.0%	1.7%	0.4%	-1.4%
Inter-Mountain Basins Juniper Savanna	1115	10	4	2	20.0%	50.0%	1.7%	0.7%	-1.1%
Inter-Mountain Basins Sparsely Vegetated Systems	1001	9	4	1	11.1%	25.0%	1.6%	0.7%	-0.9%

Sonoran Paloverde-Mixed Cacti Desert Scrub	1109	9	6	6	66.7%	100.0%	1.6%	1.1%	-0.5%
Inter-Mountain Basins Semi-Desert Shrub-Steppe	1127	8	2	2	25.0%	100.0%	1.4%	0.4%	-1.1%
Rocky Mountain Subalpine-Montane Mesic Meadow	1145	8	0	0	0.0%		1.4%	0.0%	-1.4%
Inter-Mountain Basins Greasewood Flat	1153	8	13	4	50.0%	30.8%	1.4%	2.3%	0.9%
Rocky Mountain Montane Riparian Systems	1159	8	22	3	37.5%	13.6%	1.4%	3.8%	2.4%
Great Basin Pinyon-Juniper Woodland	1019	7	15	6	85.7%	40.0%	1.2%	2.6%	1.4%
Rocky Mountain Subalpine-Montane Limber-Bristlecone Pine Woodland	1057	7	0	0	0.0%		1.2%	0.0%	-1.2%
Mojave Mid-Elevation Mixed Desert Scrub	1082	6	3	1	16.7%	33.3%	1.1%	0.5%	-0.5%
Southern Colorado Plateau Sand Shrubland	1093	6	9	2	33.3%	22.2%	1.1%	1.6%	0.5%
North American Warm Desert Sparsely Vegetated Systems	1004	5	1	0	0.0%	0.0%	0.9%	0.2%	-0.7%
Southern Rocky Mountain Ponderosa Pine Savanna	1117	5	3	1	20.0%	33.3%	0.9%	0.5%	-0.4%
Rocky Mountain Subalpine/Upper Montane Riparian Systems	1160	5	8	2	40.0%	25.0%	0.9%	1.4%	0.5%

Total number of holdout plots = 574; Total number of holdout plots with agreement = 280; Overall agreement = 48.8%

Table 44: Southwest Super Zone Summary for Environmental Site Potential-Ecological Systems, 5x5 Spatial Window

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
Colorado Plateau Pinyon-Juniper Woodland	1016	105	116	83	79.1%	71.6%	18.3%	20.2%	1.9%
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	1055	62	78	50	80.7%	64.1%	10.8%	13.6%	2.8%
Southern Rocky Mountain Ponderosa Pine Woodland	1054	50	55	26	52.0%	47.3%	8.7%	9.6%	0.9%
Inter-Mountain Basins Big Sagebrush Shrubland	1080	27	27	17	63.0%	63.0%	4.7%	4.7%	0.0%

Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland	1051	24	19	9	37.5%	47.4%	4.2%	3.3%	-0.9%
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	1052	22	23	13	59.1%	56.5%	3.8%	4.0%	0.2%
Mogollon Chaparral	1104	19	11	6	31.6%	54.6%	3.3%	1.9%	-1.4%
Rocky Mountain Aspen Forest and Woodland	1011	18	9	5	27.8%	55.6%	3.1%	1.6%	-1.6%
Inter-Mountain Basins Semi-Desert Grassland	1135	18	5	2	11.1%	40.0%	3.1%	0.9%	-2.3%
Madrean Pinyon-Juniper Woodland	1025	16	30	13	81.3%	43.3%	2.8%	5.2%	2.4%
Inter-Mountain Basins Mixed Salt Desert Scrub	1081	15	26	9	60.0%	34.6%	2.6%	4.5%	1.9%
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	1107	14	16	9	64.3%	56.3%	2.4%	2.8%	0.4%
Rocky Mountain Lodgepole Pine Forest	1050	12	11	3	25.0%	27.3%	2.1%	1.9%	-0.2%
Madrean Lower Montane Pine-Oak Forest and Woodland	1024	10	8	3	30.0%	37.5%	1.7%	1.4%	-0.4%
Rocky Mountain Lower Montane-Foothill Shrubland	1086	10	4	0	0.0%	0.0%	1.7%	0.7%	-1.1%
Colorado Plateau Pinyon-Juniper Shrubland	1102	10	1	1	10.0%	100.0%	1.7%	0.2%	-1.6%
Inter-Mountain Basins Juniper Savanna	1115	10	3	3	30.0%	100.0%	1.7%	0.5%	-1.2%
Inter-Mountain Basins Sparsely Vegetated Systems	1001	9	3	1	11.1%	33.3%	1.6%	0.5%	-1.1%
Sonoran Paloverde-Mixed Cacti Desert Scrub	1109	9	8	7	77.8%	87.5%	1.6%	1.4%	-0.2%
Inter-Mountain Basins Semi-Desert Shrub-Steppe	1127	8	2	2	25.0%	100.0%	1.4%	0.4%	-1.1%
Rocky Mountain Subalpine-Montane Mesic Meadow	1145	8	0	0	0.0%		1.4%	0.0%	-1.4%
Inter-Mountain Basins Greasewood Flat	1153	8	9	3	37.5%	33.3%	1.4%	1.6%	0.2%
Rocky Mountain Montane Riparian Systems	1159	8	20	3	37.5%	15.0%	1.4%	3.5%	2.1%
Great Basin Pinyon-Juniper Woodland	1019	7	12	6	85.7%	50.0%	1.2%	2.1%	0.9%

Rocky Mountain Subalpine-Montane Limber-Bristlecone Pine Woodland	1057	7	2	1	14.3%	50.0%	1.2%	0.4%	-0.9%
Mojave Mid-Elevation Mixed Desert Scrub	1082	6	3	1	16.7%	33.3%	1.1%	0.5%	-0.5%
Southern Colorado Plateau Sand Shrubland	1093	6	8	2	33.3%	25.0%	1.1%	1.4%	0.4%
North American Warm Desert Sparsely Vegetated Systems	1004	5	0	0	0.0%		0.9%	0.0%	-0.9%
Southern Rocky Mountain Ponderosa Pine Savanna	1117	5	4	0	0.0%	0.0%	0.9%	0.7%	-0.2%
Rocky Mountain Subalpine/Upper Montane Riparian Systems	1160	5	4	2	40.0%	50.0%	0.9%	0.7%	-0.2%

Total number of holdout plots = 574; Total number of holdout plots with agreement = 289; Overall agreement = 50.3%

Table 45: Southwest Super Zone Summary for Environmental Site Potential-NatureServe Similarity Groups

		Class Specific Holdout Plot Agreement					Proportional Agreement		
Name	**Code**	**LFRDB Plots**	**Mapped Plots**	**Plots with Agreement**	**Producer Agreement**	**User Agreement**	**LFRDB Percent**	**Mapped Percent**	**DIFF**
InterMountain Basins Pinyon-Juniper Woodland and Montane Sagebrush	2513	134	136	98	73.1%	72.1%	23.3%	23.7%	0.4%
Southern Rocky Mountain Ponderosa Pine and Dry-Mesic Woodland	2512	101	99	71	70.3%	71.7%	17.6%	17.3%	-0.4%
Rocky Mountain Subalpine Forest and Woodland	2509	83	84	66	79.5%	78.6%	14.5%	14.6%	0.2%
InterMountain Basins Cool Desert Shrubland and Steppe	2608	36	20	14	38.9%	70.0%	6.3%	3.5%	-2.8%
Inter-Mountain Basin Big Sagebrush and Desert Sagebrush	2615	30	29	18	60.0%	62.1%	5.2%	5.1%	-0.2%
InterMountain Basins Cool Desert Saline Shrubland	2609	25	43	17	68.0%	39.5%	4.4%	7.5%	3.1%
Southern Rocky Mountain Montane Shrubland and Grassland	2603	24	18	12	50.0%	66.7%	4.2%	3.1%	-1.1%
Madrean Encinal and Pinyon-Juniper Woodland	2502	21	27	13	61.9%	48.2%	3.7%	4.7%	1.1%
Southwest Semi-Desert Chaparral	2607	20	9	5	25.0%	55.6%	3.5%	1.6%	-1.9%
Rocky Mountain and Intermountain Aspen-Mixed Conifer Forest	2521	19	18	9	47.4%	50.0%	3.3%	3.1%	-0.2%

Rocky Mountain and Intermountain Montane Riparian and Swamp	2519	16	30	7	43.8%	23.3%	2.8%	5.2%	2.4%
Sonora-Mojave Desert Scrub	2605	15	19	13	86.7%	68.4%	2.6%	3.3%	0.7%
Rocky Mountain Alpine Turf and Subalpine Meadow	2807	13	5	4	30.8%	80.0%	2.3%	0.9%	-1.4%
Madrean Montane Pine-Oak and Mixed Conifer Woodland	2503	12	6	3	25.0%	50.0%	2.1%	1.1%	-1.1%
Inter-Mountain Basins Sparsely Vegetated Systems	3001	9	4	1	11.1%	25.0%	1.6%	0.7%	-0.9%
North American Warm Desert Sparsely Vegetated Systems	3003	5	1	0	0.0%	0.0%	0.9%	0.2%	-0.7%

Total number of holdout plots = 574; Total number of holdout plots with agreement = 355; Overall agreement = 61.8%

Southwest Ecological Super Zone Systems not shown in summary tables (less than 5 plots in the product quality assessment data set)

Rocky Mountain Subalpine-Montane Limber-Bristlecone Pine Woodland	2057
Rocky Mountain Montane Riparian Systems	2159
Rocky Mountain Alpine/Montane Sparsely Vegetated Systems	2006
Southern Rocky Mountain Pinyon-Juniper Woodland	2059
Colorado Plateau Mixed Low Sagebrush Shrubland	2064
Southern Colorado Plateau Sand Shrubland	2093
Southern Rocky Mountain Ponderosa Pine Savanna	2117
Apacherian-Chihuahuan Semi-Desert Grassland and Steppe	2121
Inter-Mountain Basins Montane Sagebrush Steppe	2126
Rocky Mountain Dry Turf	2144
Southern Rocky Mountain Montane-Subalpine Grassland	2146
Rocky Mountain Subalpine/Upper Montane Riparian Systems	2160
Tamarisk spp. Semi-Natural Temporarily Flooded Shrubland Alliance	2225
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	2087
Southern Rocky Mountain Juniper Woodland and Savanna	2119
Rocky Mountain Wetland-Herbaceous	2164
Abies concolor Forest Alliance	2208
Bromus spp. Semi-Natural Herbaceous Alliance	2226
Rocky Mountain Bigtooth Maple Ravine Woodland	2012
Inter-Mountain Basins Subalpine Limber-Bristlecone Pine Woodland	2020
Madrean Encinal	2023
Madrean Upper Montane Conifer-Oak Forest and Woodland	2026
Rocky Mountain Foothill Limber Pine-Juniper Woodland	2049
Rocky Mountain Subalpine Wet-Mesic Spruce-Fir Forest and Woodland	2056
Inter-Mountain Basins Mountain Mahogany Woodland and Shrubland	2062
Inter-Mountain Basins Mat Saltbush Shrubland	2066
Apacherian-Chihuahuan Mesquite Upland Scrub	2095
Great Basin Semi-Desert Chaparral	2103

Inter-Mountain Basins Juniper Savanna	2115
Madrean Juniper Savanna	2116
Western Great Plains Shortgrass Prairie	2149
North American Warm Desert Riparian Systems	2155
Introduced Upland Vegetation - Annual and Biennial Forbland	2183
Grayia spinosa Shrubland Alliance	2211
Cercocarpus montanus Shrubland Alliance	2216
Elaeagnus angustifolia Semi-Natural Woodland Alliance	2224
Colorado Plateau Blackbrush-Mormon-tea Shrubland	2078
Sonoran Mid-Elevation Desert Scrub	2091
Introduced Riparian Vegetation	2180
Introduced Upland Vegetation - Annual Grassland	2181
Introduced Upland Vegetation - Perennial Grassland and Forbland	2182

Fuel Model Product Assessments

The fire behavior fuel model products FBFM13 (Anderson 1982) and FBFM40 (Scott and Burgan 2005) are necessary inputs to fire behavior processors such as FARSITE, FLAMMAP or larger decision support systems such as the Wildland Fire Decision Support System (WFDSS). Despite their importance, there is no method available which enables an objective, comprehensive "accuracy assessment" of these FBFM products. A quality assessment requires an objective method for measuring or quantifying fuel models at a plot or stand. FBFM13 designations are typically adjusted by fire behavior analysts to match local knowledge of burning conditions across the seasons, so there is no FBFM13 accepted as "correct" for a specific location to use as a reference for the quality assessment.

However, here we attempt to infer the quality of the FBFM13 spatial layer from other available information. One of the most important factors impacting map agreement is the number of classes mapped. Generally, as the number of map classes decreases, the map agreement increases. In the Western Milestone, LFNA Existing Vegetation Type (EVT) mapped 182 classes with an average agreement of 40%. The cross-walked agreement estimates for 94 SAF/SRM classes was 50%. Because the FBFM13 and FBFM40 spatial products have a maximum of 13 and 40 map classes respectively, but often has less than 8-9 in any specific map zone, we would expect the agreement for this product to be substantially higher than the SAF/SRM agreement (50%). In addition, the spatial products in a map zone are reviewed and adjusted by local experts, which should increase the estimated agreement. Based upon these inferences, the PQWT estimates that FBFM13 agreement is 55%-65% on the average for the Western Milestone. Map zones with low EVT agreement and few experts to help adjust the product would be on the lower end of this range, perhaps even slightly below 55% (but not necessarily). One reason that perceived agreement might still be high in Map zones with low EVT accuracy is that rule-sets can be developed that account for EVT misclassifications and still produce reasonable FBFM products. Map zones with higher EVT agreement and significant expert opinion incorporated would be at the upper end of the projected agreement range, and perhaps even higher than 65%. It would be useful in the future when additional resources are available to quantitatively test these assertions.

Fuels are highly temporally and spatially variable, thus all users are cautioned to evaluate the applicability of each FBFM product prior to engaging in any analysis activity. The true application scale of the LANDFIRE products "out-of-the-box" is most often larger landscapes, though examples are available of usage on projects covering less than 5,000 acres. If necessary, the LANDFIRE National FBFM products may be adjusted by local experts to more adequately represent fire behavior conditions more accurately using standard GIS tools or the Area Change Tool (ACT) available from the National Interagency Fuels Technology Team (NIFTT).

Canopy Fuel Assessments

A ten-fold cross validation procedure (Shao 1993) is used to assess the accuracy of the statistical models used to predict CBD and CBH across the landscape (Table 46). Several factors make this process difficult. First, many Map zones had less than 100 plots for predicting CBH and CBD across the landscape. These zones are either dominated by desert, agricultural, or rangeland vegetation or were developed early in the processing schedule which limited the number of adjacent zones with sufficient plot data. Without sufficient plots, a robust regression tree whose aim is mapping canopy fuels over millions of acres cannot be constructed. Second, where possible, we used regression trees to predict CBH and CBD across the landscape.

Table 46: Canopy Fuels Model Statistics for Western Milestone Map Zones

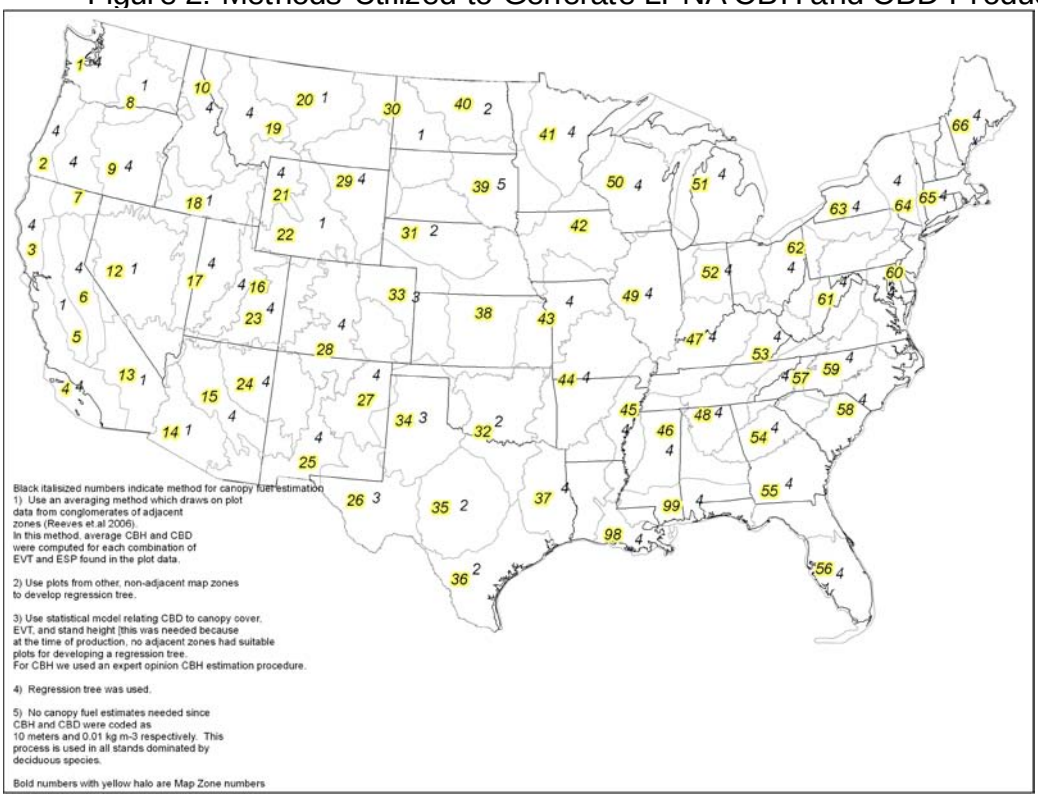
Mapping Zone	CBH			CBD		
	r	bias (m)	MAE (m)	r	bias (kg m^{-3})	MAE (kg m^{-3})
1	0.40	0.043	0.787	0.57	0.001	0.043
2	0.14	2.549	2.87	0.56	0.004	0.041
3	0.14	0.642	0.867	0.79	-0.001	0.054
6	0.10	0.443	0.785	0.7	0	0.063
7	0.33	0.924	1.22	0.76	0.001	0.033
9	0.35	0.583	0.875	0.52	0	0.027
10	0.3	1.794	2.031	0.57	-0.002	0.035
15	0.57	0.902	1.051	0.76	0	0.03
16	0.54	0.56	0.845	0.71	0.001	0.038
17	0.66	0.109	0.25	0.77	-0.008	0.053
19	0.24	0.784	1.013	0.65	-0.001	0.041
21	0.06	0.852	1.213	0.66	0	0.03
23	0.46	0.235	0.391	0.77	0.003	0.053
24	0.75	0.451	0.57	0.78	-0.001	0.036
28	0.32	0.469	0.836	0.69	0	0.036

The various techniques used for producing CBH and CBD products are outlined below (the numbers correspond to the map classes in Figure 2):

1) Use an averaging method which draws on plot data from conglomerates of adjacent zones (Reeves *et.al* 2006). In this method, average CBH and CBD were computed for each combination of EVT and ESP found in the plot data.
2) Use plots from other, non-adjacent map zones to develop regression tree.
3) Use a statistical model relating CBD to canopy cover, EVT, and stand height. This was needed because at the time of production, no adjacent zones had suitable plots for developing a regression tree. For CBH we used an expert opinion CBH estimation procedure.
4) Use a Regression Tree method.
5) No canopy fuel estimates were needed since CBH and CBD were coded as 10 meters and 0.01 kg m-3. This process is used in all stands

dominated by deciduous species. This technique ensures that, during a fire behavior simulation, crown fires are not falsely simulated (i.e. CBH is too high to permit transition from surface to crown fire, while CBD is too low to sustain active crown fire.

Figure 2: Methods Utilized to Generate LFNA CBH and CBD Products



References

Reeves M.C., J.R. Kost, K. C. Ryan. 2006. Fuel Products of the LANDFIRE Program. In 'Proceedings-Fuels Management-How to Measure Success. (Eds) PL Andrews, BW Butler pp. 239-252. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. Proceedings RMRS-P-41. (Fort Collins, CO)

Shao, J. 1993. Linear model selection by cross-validation. *Journal of the American Statistical Association* 88, 486-484.

Anderson H. 1982. Aids to determining fuel models for estimating fire behavior. U.S. Department of Agriculture, Forest Service, Intermountain Forest and Range Experiment Station General Technical Report GTR INT-122. (Ogden, Utah)

Scott J.H., and R.E. Burgan. 2005. Standard fire behavior fuel models: A comprehensive set for use with Rothermel's surface fire spread model. Pages 72. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fort Collins, CO