# Bad Data Makes Bad Policy In Fire-prone Communities

## Laurel James – UW Bioenergy IGERT
## University of Washington, Seattle 98195

Bioresource-based Energy
For Sustainable Societies
Integrative Graduate Education and Research Training (IGERT)

## Abstract

Fuelbeds" are a set of descriptors used to quantify the amount of flammable materials in a forest. They are based on landscape and eco-physiological variables. IGERT students discovered that bad data was driving bad policy on the Reservation of the Confederated Salish and Kootenai Tribes (CSKT). This participatory action research project developed more accurate data sets to describe fuel beds that were consistent with the environmental goals and management practices of the tribe.   Modified fuelbeds were designed based on Bureau of Indian Affairs – CSKT continuous forest inventory data. A seral class approach was used and combined with fire regime condition class information then, applied to the landscape to create the modified fuelbed. This crosswalk of data served as the Nation's first example of tribally-driven corrections for a federal fuel modeling system. The discovery that bad data was driving bad policy on the CSKT reservation resulted in a major restoration of funding for forest and fuels management on the reservation.
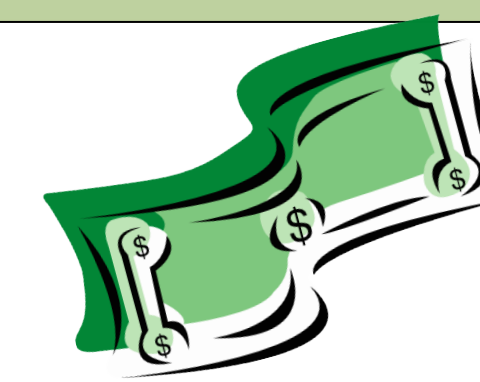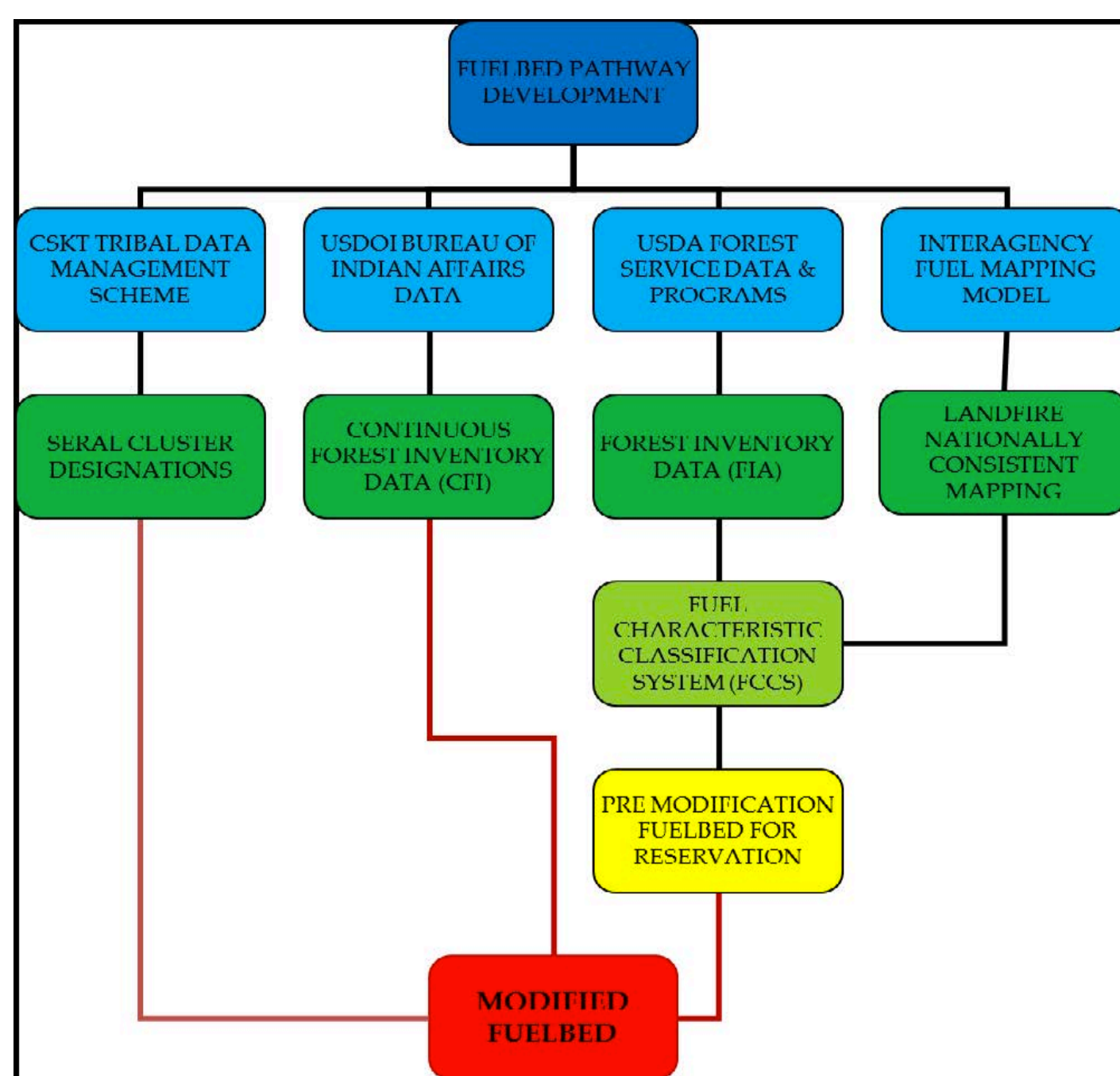
## Introduction

Originally this project was derived from a need to determine biomass estimates across the Confederated Salish & Kootenai Tribes' reservation.  In concert with previous UW IGERT research, LANDFIRE & the Fuel Characteristic & Classification System (FCCS) were chosen due to the nationally consistent high resolution 30m data sets.  The resulting data sets contain customized fuelbeds while also providing for a means to determine biomass.
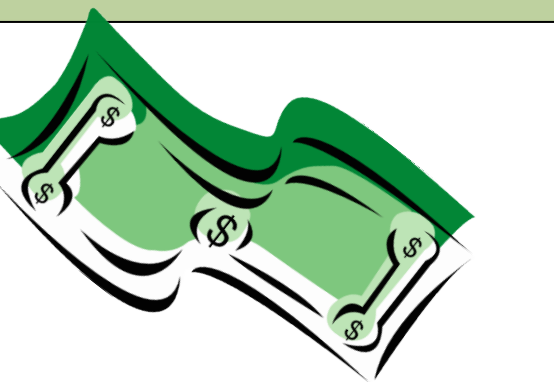
## Methods

Pre modification data was derived from the LANDFIRE data. The FCCS modified fuelbeds incorporated SERAL CLUSTER designations.

The CSKT, SERAL CLUSTER is a simplistic method for classifying timber and vegetation based upon structure and composition.  Variables identified within the seral class designations include (in part):  Size and age for trees, for the most dominant tree layer.  Stand density (canopy closure) and determination of multi or single storied stand along with shade tolerant (climax) or shade intolerant (seral) species.   This type of stand level data was then combined with plot level  Continuous Forest Inventory Data  information within FCCS.

## The Modified Data



Jocko Landscape -- Pre Modification
Based upon Landfire Desingations

### Pre Modification

Jocko Landscape -- Post Modification
Based upon Seral Cluster Desingatons

### Post Modification

## Policy Implications for the Tribe



**THE POLICY ISSUE**
 In 2011 the Tribe was greatly impacted by the implementation of the Hazardous Fuels Priority Allocation System (HFPAS) which, utilized the geospatial base from the LANDFIRE mapping project.  The policy from the Department of Interior, was to establish a new mechanism for ranking, prioritizing and allocating fire and fuels budgets for all agencies within the Department of Interior.

**THE DATA ISSUE**
   My MS Thesis work helped the tribe identify to officials in Washington DC, the inaccuracies associated with the LANDFIRE data on CSKT tribal lands.  In addition, the Intertribal Timber Council went further in identifying the fallacies associated with all parts of the ranking system.

**THE RESULTS**
   Once HFPAS was implemented (February 2011) immediate impacts to the tribe were felt.  Fire and fuels budgets were slashed from approximately **1.4 Million dollars to $69,000**.  The CSKT and the Intertribal Timber Council responded to this reduction in funding with letters to Washington DC and (then) Secretary Salazaar.   For CSKT, their concerns were heard and funding was restored to approximately **$900,000 in 2012.**
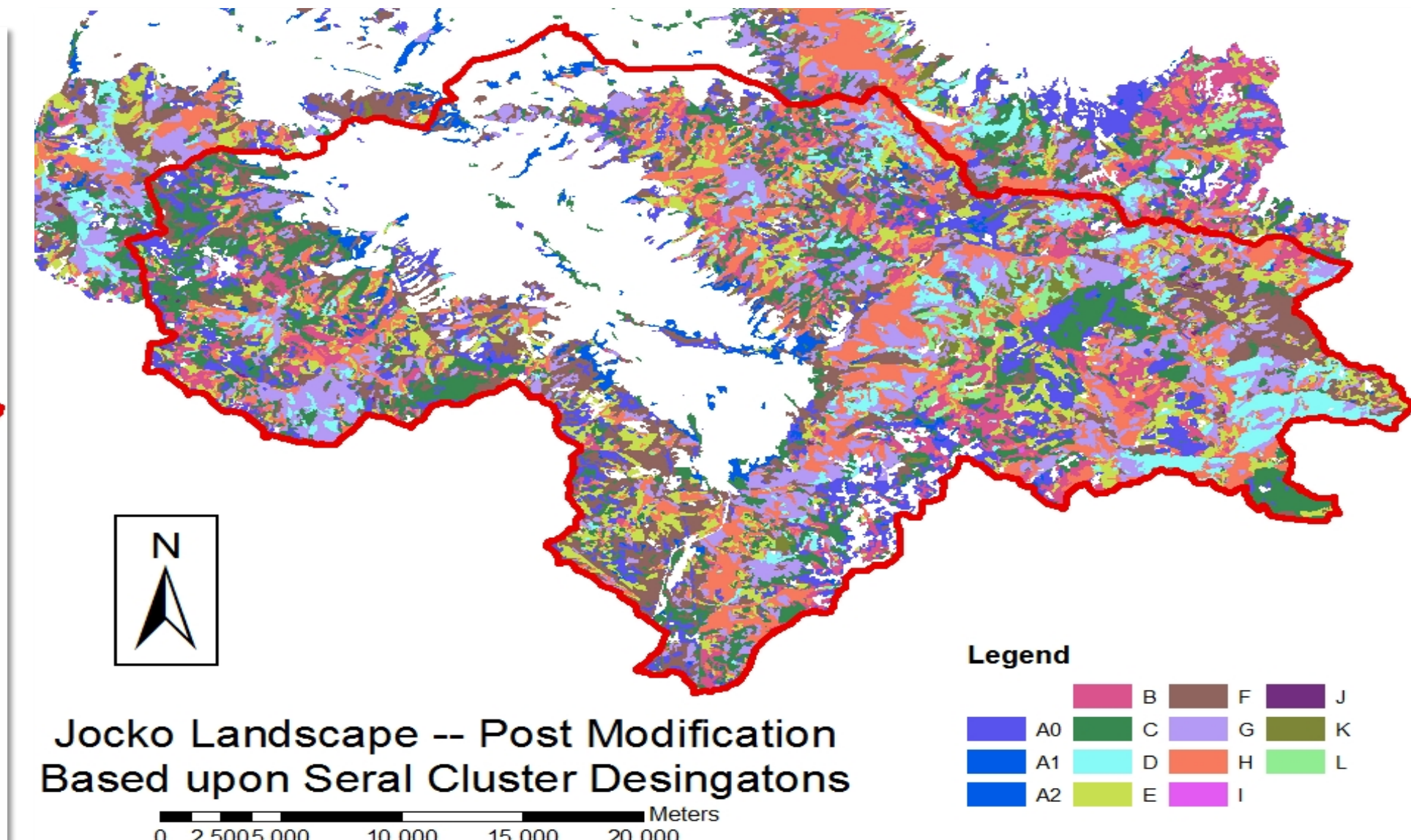   The Bureau of Indian Affairs and other Tribes across the country have scrambled to update their LANDFIRE data, with the hopes of regaining some of their funding.
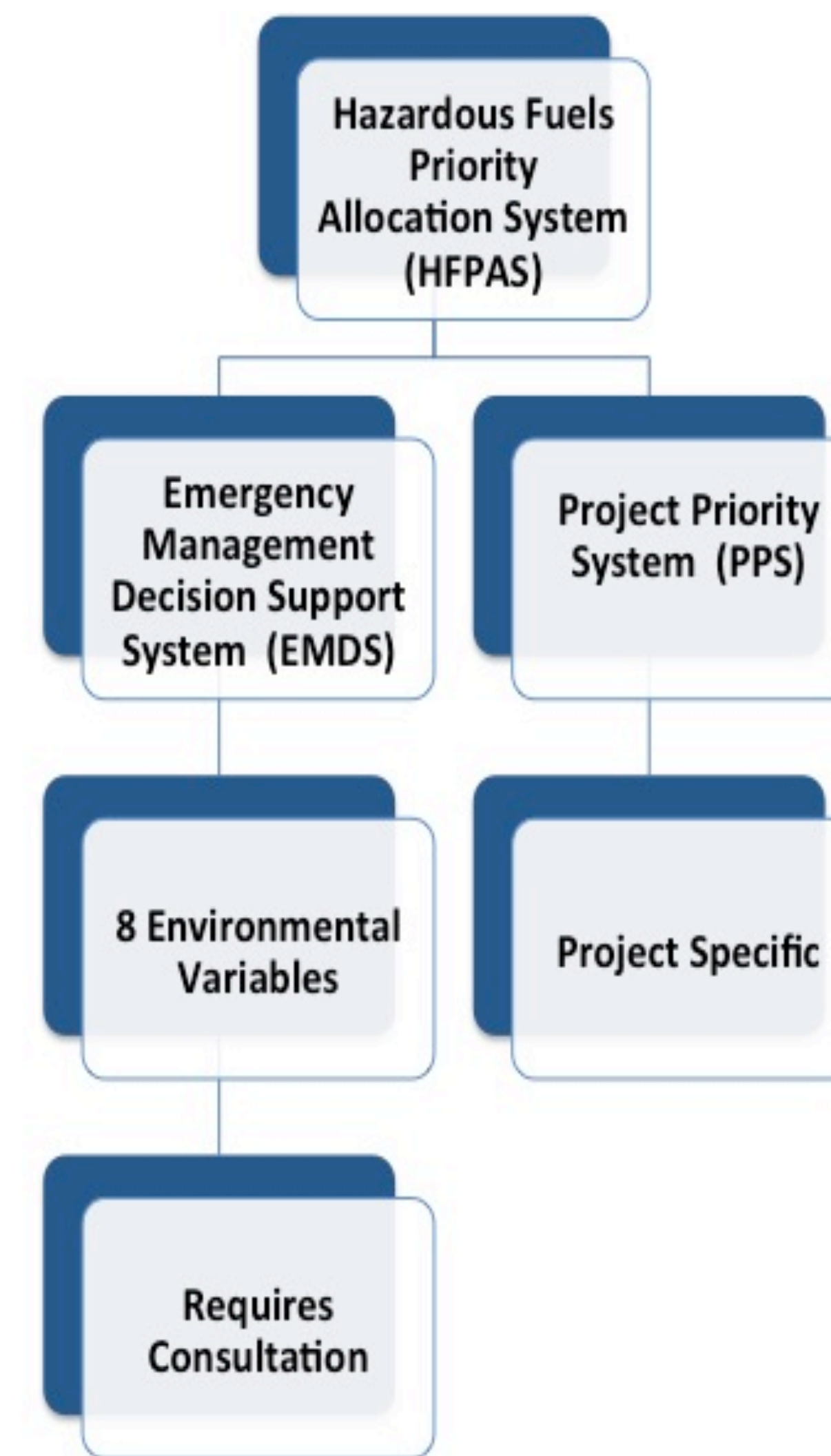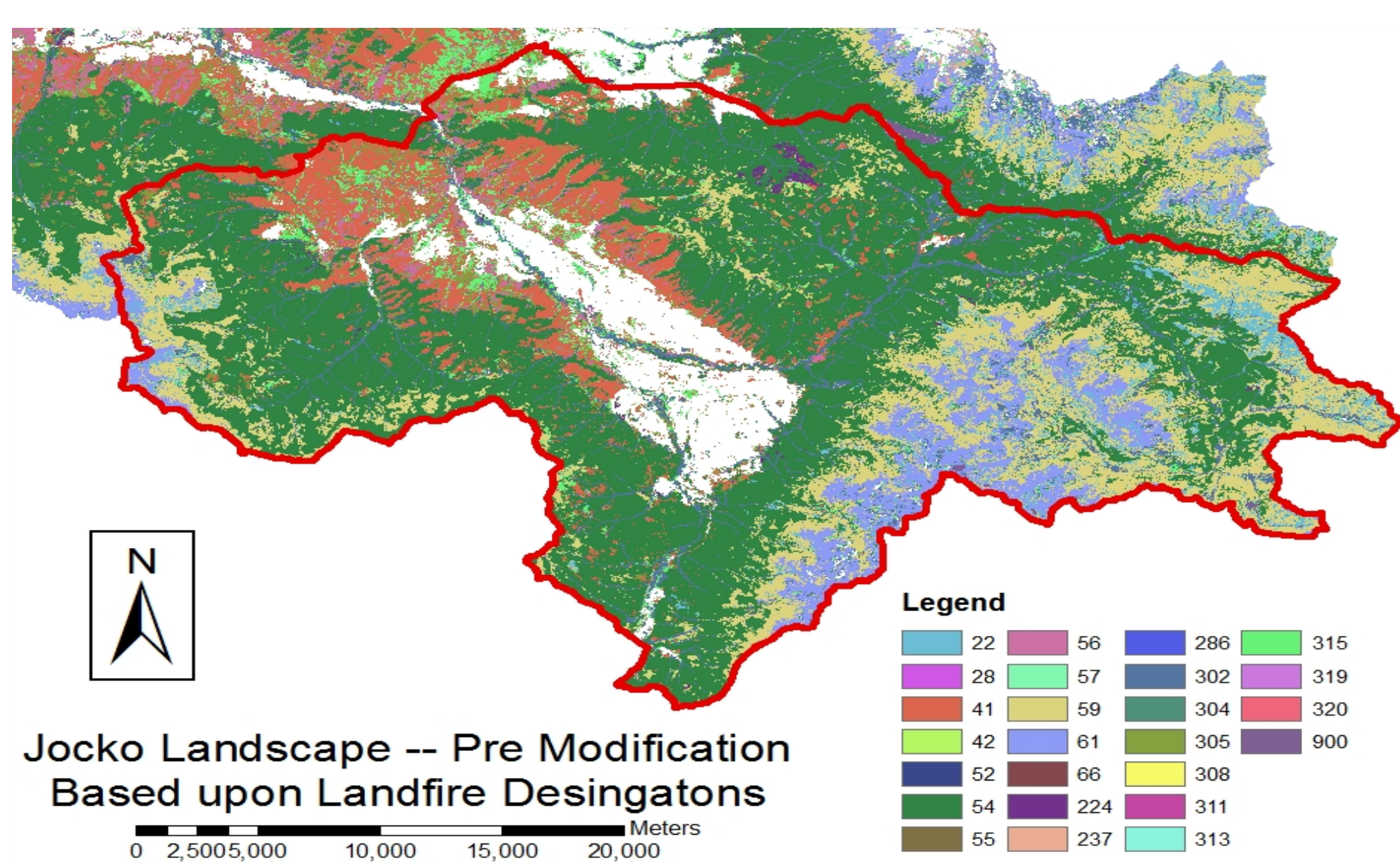
## References

1.  Durglo, Joe.  Letter to Department of Interior, Honorable Salazaar. 2012, February 29.  Confederated Salish and Kootenai Tribes, Tribal Chairman.
2. Blythe, Larry.  Letter to the Rhea Suh, Department of Interior, Assistant Secretary Policy- Budget and Management. 2012, March 29.  President, Intertribal Timber Council
3. Thorsen. Memorandum to DOI – BIA, NPS, BLM and USFWS.  Hazardous Fuels Prioritzation and Allocation System. 2011, February 14.
4. Johnson, R., G. Barnes, K. Gollnick-Waid, J. Wallace, A. Bundshuh, S. Goodman, and Jerry Szymaniak. 2011. Ecosystem management decision support (EMDS): Summary of fiscal year 2011 results. Prepared for the National Wildfire Coordinating Group Fuels Management Committee. BLM/OC/ST-11/004+9217+rev. U.S. Department of the Interior, Bureau of Land Management, Denver, CO management decision support (EMDS): Summary of fiscal year 2011 results. Prepared for the National Wildfire Coordinating Group Fuels Management Committee. BLM/OC/ST-11/004+9217+rev. U.S. Department of the Interior, Bureau of Land Management, Denver, CO.
5. Thorsen. Memorandum to DOI – BIA, NPS, BLM and USFWS.  DOI Hazardous Fuels Reduction Priorities. 2011, June 1.
6. United States Government Accountability Office (GAO).  Report to Congressional Requesters. Wildland Fire Management: Better Information and a Systematic Process Could Improve Agencies' Approach to Allocating Fuel Reduction Funds and Selecting Projects. GAO-07-1168, September 2007.
7. James, Laurel Lynn.  National to Local:  A pre & post assessment of the Fuel Characteristic Classification System (FCCS) landscape variables for the Confederated Salish and Kootenai Tribes.  Thesis:  Master's, University of Washington. 2012.

## Acknowledgements

A People of Vision