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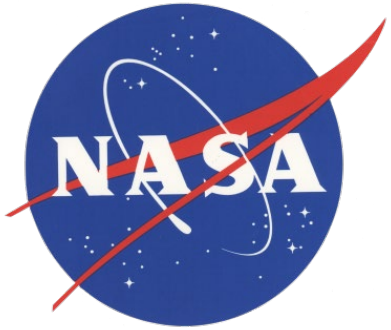
NASA RECOVER 2.0 Post-fire Decision Support System



Keith T. Weber, GISP (PI), ISU GIS TReC

Brad Quayle (Co-PI), USDA Forest Service GTAC

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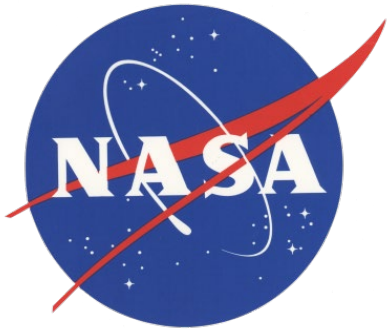
What is RECOVER 2.0?

- A Cloud-based platform for Post-wildfire management and long-term monitoring
- RECOVER 2.0 is a Customer-driven, Customer-centric* Decision Support System (DSS)



* Our “customers” are agency/organizational wildfire and land managers at the USDA Forest Service, DOI BLM, NPS, NWS, as well as state agencies, and county emergency managers

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Enhancements Provided by RECOVER

- Rapid spatial data acquisition specific to post-wildfire events
- Cross-organizational collaboration
  - RECOVER breaks down silos
- Common Operational Picture (uniform spatial context)

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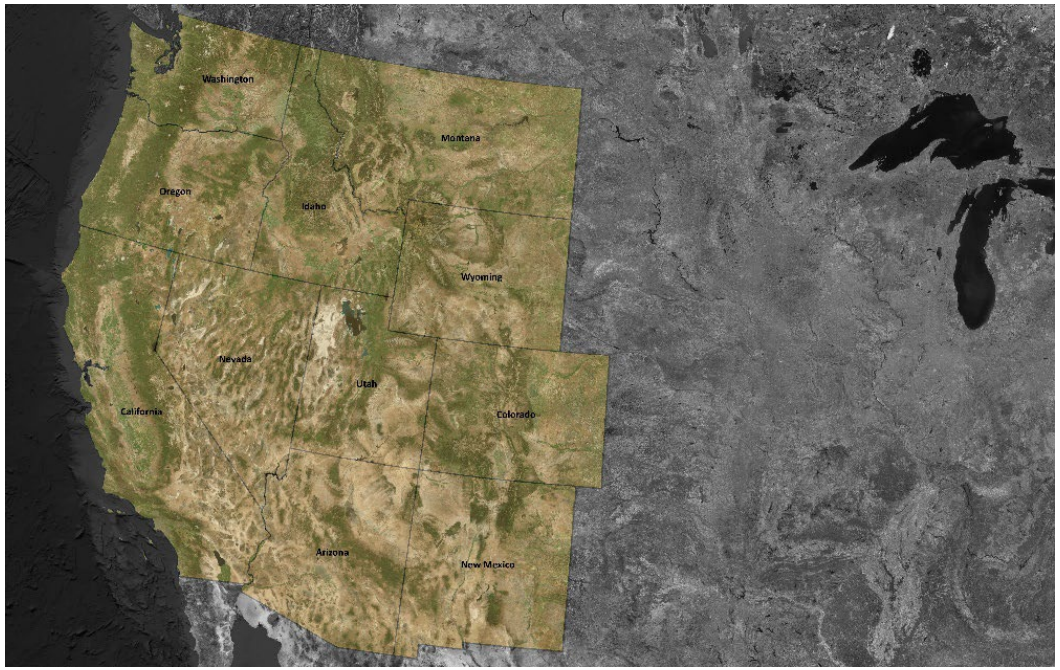
Data Architecture

- **Base Layers** with wall-to-wall coverage across the Western USA
- Existing, authoritative data
- Automated processing using our **Large Fire Trigger**
- Delivers **RECOVER Data Packages**
- Leverages Esri's ArcGIS Online (AGOL) cloud and Portal



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Recent Updates

- Updated Habitat base layer using 2023 USFWS data
- Updated gSSURGO base layer including Hydrologic Soil Group data (in support of request from USACE)

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More Updates Coming!

- Ability to upload fire AOI polygons
- Long-term post-fire monitoring using NASA satellite imagery
  - Step one: Develop a decade long baseline NDVI from Landsat imagery (over 17,000 images already processed (~18,000 in total)
  - Step two: Create a multi-dimensional image service of these data (experimental service prototype is already in testing)
  - Step three: Develop an interface/tools to determine baseline conditions within a fire area and begin post-fire monitoring
- Summary/Overview Reports

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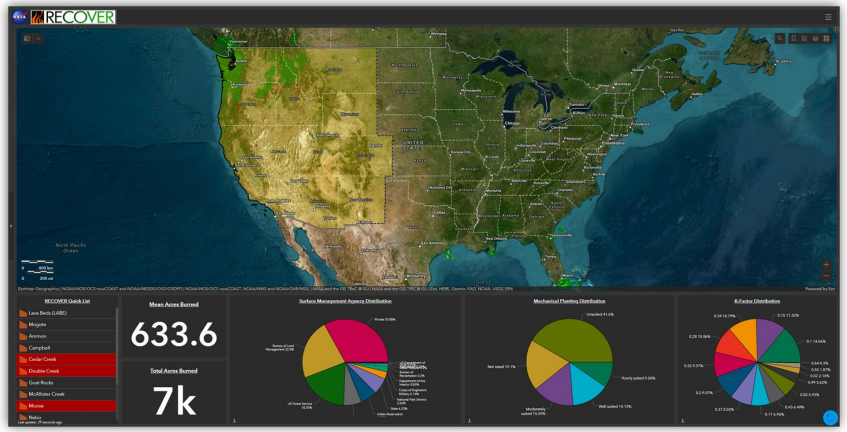
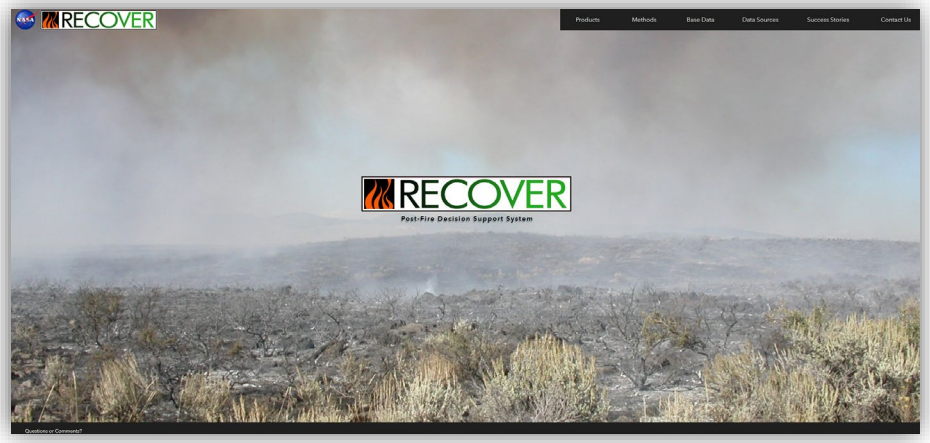
Using RECOVER

https://giscenter.isu.edu/research/Techpg/nasa_RECOVER2/index.htm

Dashboard



Experience Builder



Web Page

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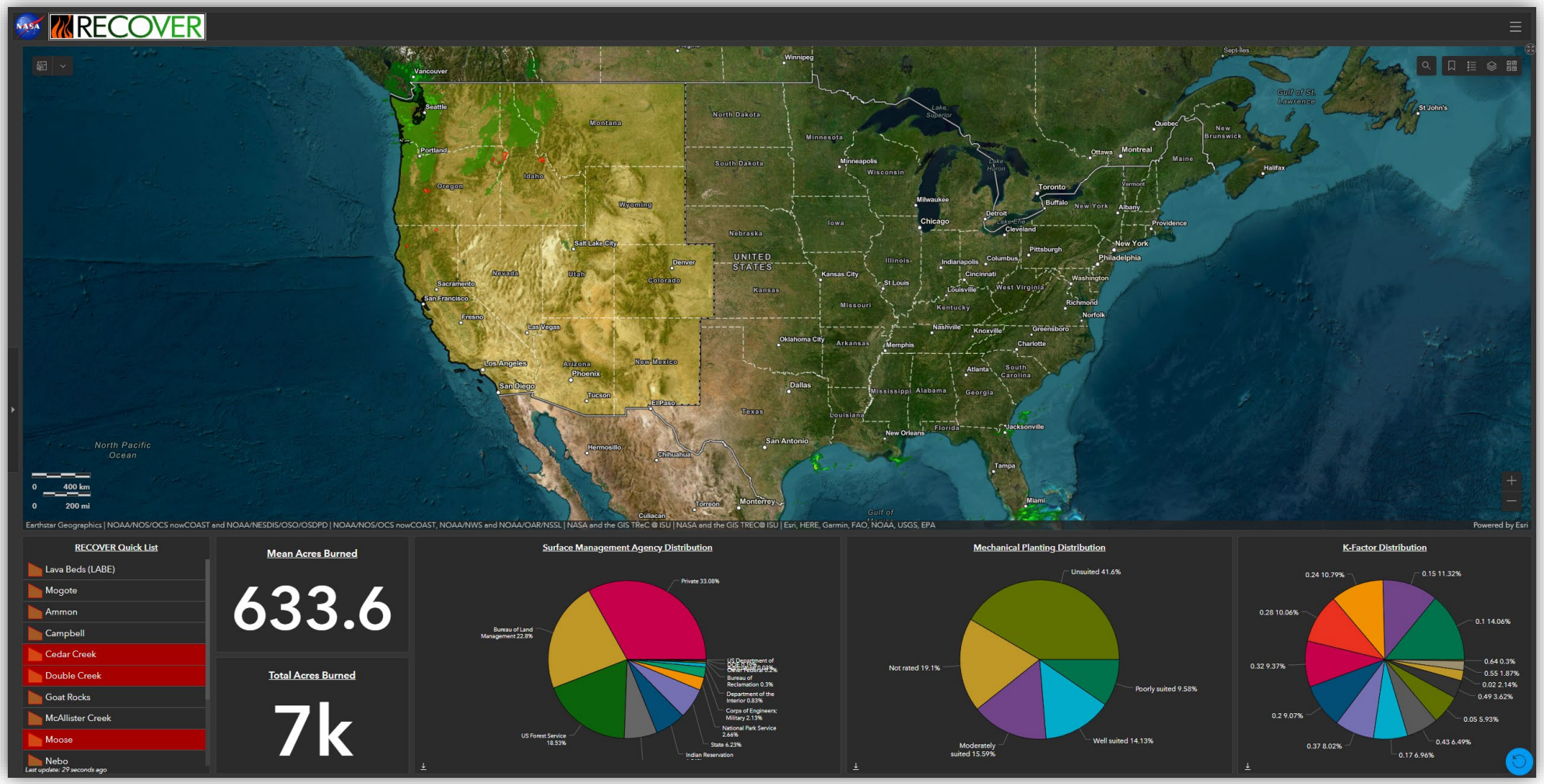
Let's Visit The RECOVER 2.0 Dashboard



https://www.arcgis.com/apps/dashboards/19af90a8bc5d41188ed855d249bc1c72

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Questions?

- Meet the RECOVER Team
  - Keith T. Weber[1]
  - Brad Quayle[2]
  - Craig Baker[2]
  - Michael Bogle[2]
  - Samuel Prentice[2]
  - Ali Reiner[2]
  - Cole Rosner[1]

1- Idaho State University GIS Training and Research Center (GIS TReC)
2 – USDA Forest Service Geospatial Technology and Applications Center (GTAC)

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