

NASA RECOVER DSS: Real-time Mapping App

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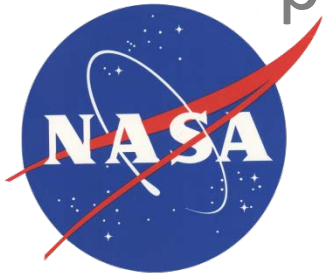
1- ISU GIS TReC

2- NASA Goddard Space Flight Center



What is RECOVER?

- RECOVER: Rehabilitation Capability Convergence for Ecosystem Recovery
- NASA Applied Sciences Program sponsored project

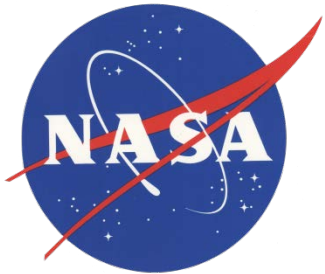


RECOVER is a NASA Applied Sciences sponsored project. K. T. Weber (PI), J. Schnase (Co-PI) and M. Carroll (Co-PI), Goddard Space Flight Center

What is RECOVER?

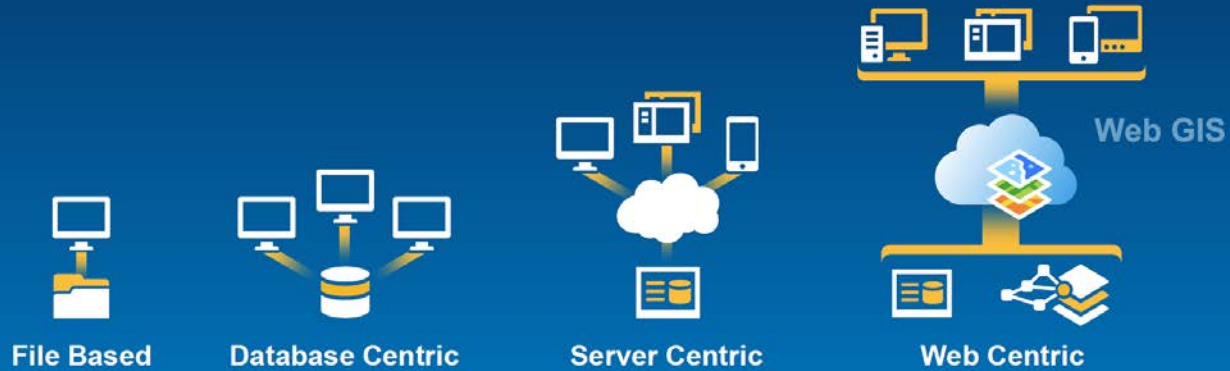
- Customer-driven, Customer-centric*
- Decision Support System (DSS)
 - Rapid assembly of site-specific data
 - Delivered in customized GIS analysis environment
 - Wildfire focus

* Our “customer” is any wildfire management agency (e.g., BLM, NPS, BOI, BOR, USFS, etc.)



Benefits of RECOVER

Leveraging Common Computing Architecture



- Works seamlessly across all devices
- Reduces need for custom applications
- Platform for integration with other business systems
- Cross organizational collaboration
- Ready to use content and services
- Content management system



GIS Layers

- Each RECOVER web map contains 25 base layers
- One real-time data feed (Collector)
- Fire-specific reports
- And *may* contain a **dNBR** layer and **debris-flow probability** layer
- As well as other fire-specific layers provided by “you”

Listen to the Customer

- “Make it mobile”
- “High-resolution is nice, but fast is critical”
 - NIFC
- “Drowning in Data, but still thirsting for Information”
 - USFS RSAC

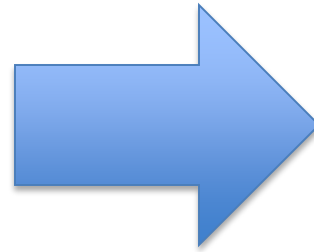
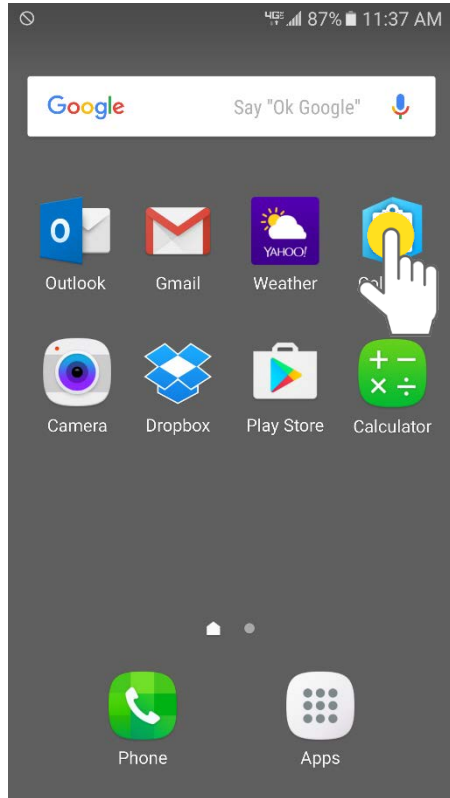


The RECOVER Real-Time Map App

- We are leveraging “Collector for ArcGIS”
- User’s in the field can collect:
 - POINT or LINE features/events
 - Photographs
- With Wi-Fi or cellular data connectivity to the web and the Esri cloud, data can be delivered *almost* instantly

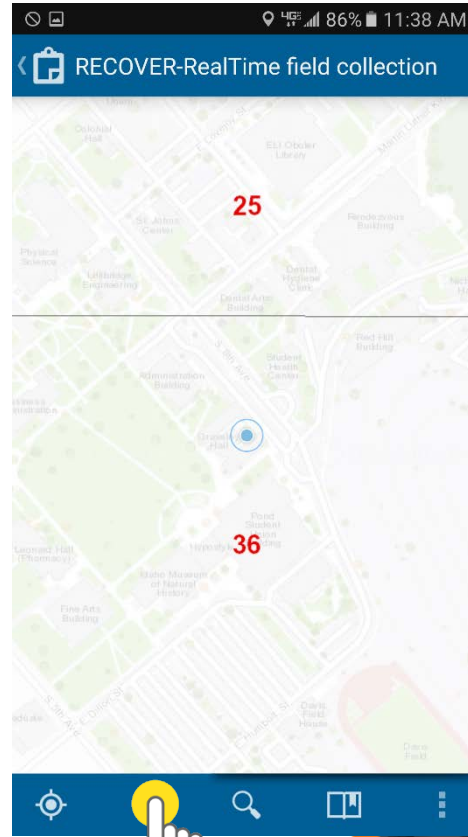
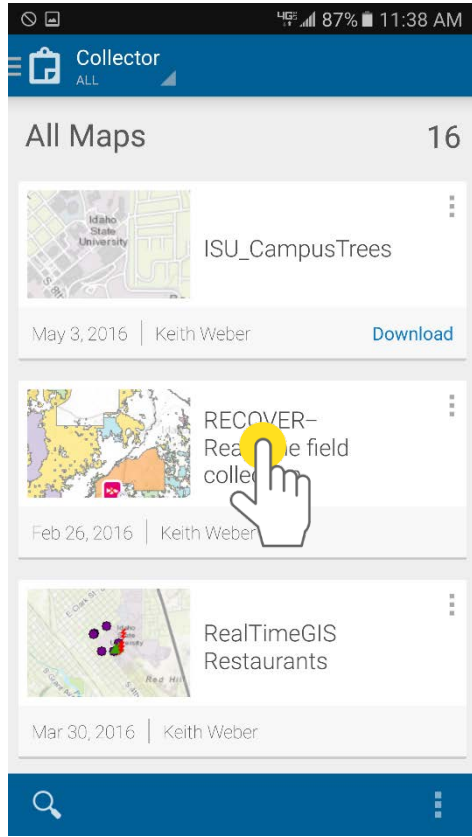


Launch "Collector"



Sign into AGOL

Launch our Map App



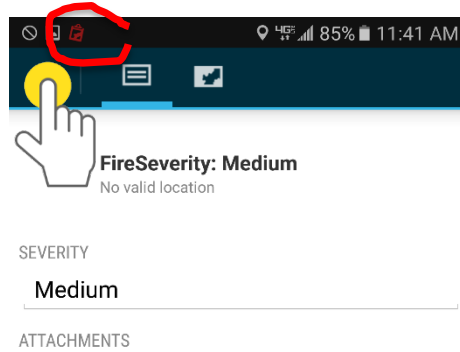
Choose a Feature/Event

FireLines	FirePoints
Aerial Hazard - Solid Red line	Aerial Hazard
Air Tanker Foam	Airstrip or Airport
Air Tanker Retardant	Camp
Completed Dozer Line	Drop Point
Completed Line	Fire Origin
Completed Line Break	Fire Station
Explosive Line	First Aid Station
Fire Spread Prediction	Heat Source
Hand Line - Solid black line	Heat Source - Outside of Line
Heat Line (IRIN)	Helibase
Helitanker Foam	Helispot
Helitanker Water	Hot Spot
Other	IR Downlink
Planned Fire Break	Incident Base
Planned Fire Line	Incident Command Post
Planned Secondary Line	Lookout
Flow Line	Miscellaneous
Proposed Dozer Line	Mud Pit
Ridge / Geographic Feature	Repeater
Uncontrolled Fire Edge	Retardant Pickup
Unknown	Safety Zone
AssignmentBreaks	Spot Fire
Sector	Staging Area
Division	Telephone
Branch	Unknown
Zone	Water Source
	Wind Speed

The screenshots illustrate the process of selecting a feature or event in the application. The first screenshot shows the search bar labeled "Filter" circled in red. The second screenshot shows a list of features with a hand cursor pointing to "Medium FireSeverity". The third screenshot shows a list of features with "Helibase" selected. The fourth screenshot shows a list of features with "Unknown FireLine" selected.

Describe the Feature

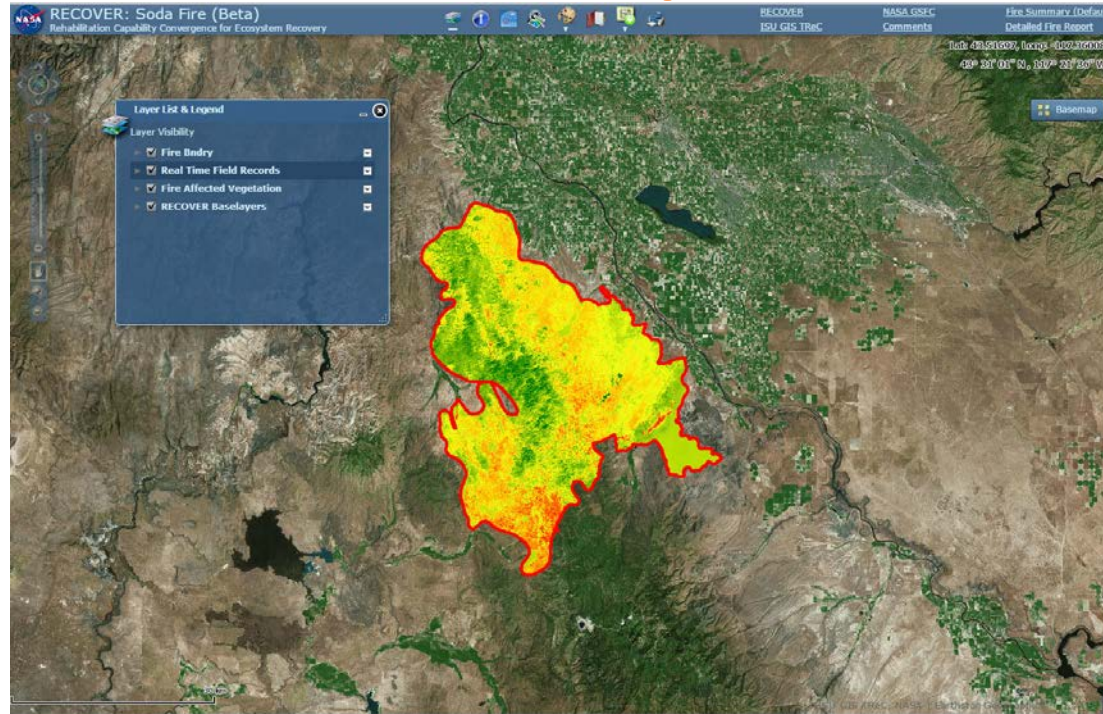
BTW, if you see this...



Your Observation will be Submitted

- The point or line feature along with its attributes will be copied to the cloud
- RECOVER Real-time Geodatabase
- Photos (with poor connectivity) will make upload slow or cause it to fail

Instant Integration with RECOVER Web Maps

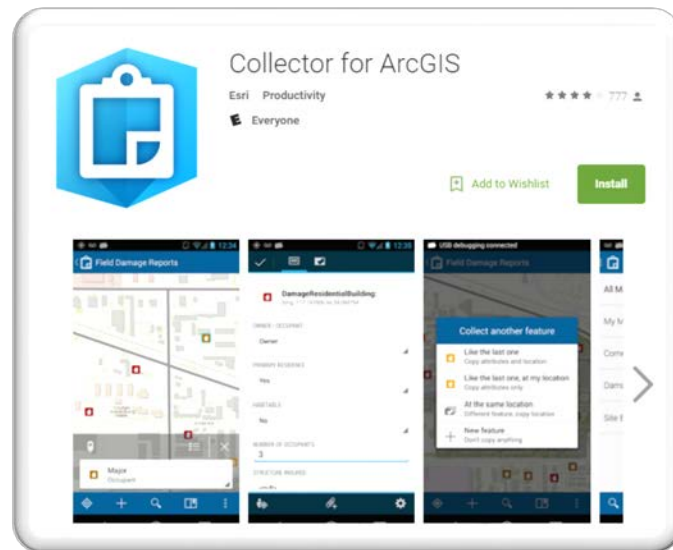


To Use RECOVER Real-Time Map App

- First step, contact me (webekeit@isu.edu) to request access
- Next Steps:
 - If you already have an AGOL account... I simply add you to the RECOVER group
 - If you need an AGOL account, I can invite you into AGOL

AGOL

- Once you are a member of the RECOVER group
- Install *Collector for ArcGIS*
 - Launch it...
 - Sign in...



The Future...

- In 2016 we expect to:
 - Further build our relationship with BLM and other current users of RECOVER
 - Develop new relationships with NPS, BIA, BOR, USFS, NOAA, USGS and others, so they become active users of RECOVER
 - Fully mature RECOVER so it is ready for “production” use following the close of the grant (fall 2017)
- Complete a mock-fire exercise in the fall 2016

Questions?



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