

Lightning Talk

Using Collector for ArcGIS for Wildfire Mitigation (Aka Fire-Wise Assessments)

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Model Practice Synopsis

- In 2015, an estimated 64% of Americans had a smartphone.
- Crowdsourcing GIS data is an effective and efficient means of collecting data.
- We used paid-on-call firefighters, their smartphones and Collector for ArcGIS to complete “Fire-Wise” structure assessments.
- Using NFPA 1144, we created a feature class to collect data about structures in the wildland-urban interface and using their scoring we are able to calculate a relative fire hazard.
- An ArcGIS Server Feature Service was generated using the feature class. This also could be created on ArcGIS Online if you do not have server.
- A Web-based map was created using ArcGIS Online and the feature service was added.
- Firefighters then use their smartphones and Collector to access the map and collect the data.

StructureAssessment - ArcMap

File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help

1.5842

Editor Parcel Editor

Utilities Underground	Fuels Modification Areas	Fixed Fire Protection	Relative Fire Hazard Score	Notes	hazard_class	Structure Size Determined
Both Underground	<Null>	NFPA 13, 13R, 13D Sprinkler system present	0	<Null>	<Null>	Estimated
Both Underground	71-100 ft of vegetation treatment completed	No sprinkler system present	<Null>	<Null>	<Null>	Estimated
Both Underground	<30 ft of vegetation treatment completed	NFPA 13, 13R, 13D Sprinkler system present	<Null>	<Null>	<Null>	Estimated
Both Underground	71-100 ft of vegetation treatment completed	NFPA 13, 13R, 13D Sprinkler system present	<Null>	<Null>	<Null>	Estimated
Both Underground	71-100 ft of vegetation treatment completed	No sprinkler system present	<Null>	<Null>	<Null>	Estimated
Both Underground	<30 ft of vegetation treatment completed	No sprinkler system present	<Null>	<Null>	<Null>	Estimated
Both Underground	71-100 ft of vegetation treatment completed	NFPA 13, 13R, 13D Sprinkler system present	40	<Null>	Low	Estimated

Table

Fire Wise Assessment

0 out of 11 Selected

Fire Wise Assessment

Drawing

1559076.044 724307.688 Feet

Database Properties

General Domains Connections Editor Tracking

Domain Owner	Domain Name	Description
sde	Drvwy_Wdt	Driveway Width
sde	Fence	Fence
sde	Fire_Pro	Fire Protection
sde	Fuel_Mod	Fuel Modification
sde	FW_Util	Placement of Gas and EI
sde	Gate	Gate
sde	Gutters	Gutters
sde	Hydrant	Hydrant Types

Domain Properties:

Field Type	Long Integer
Domain Type	Coded Values
Split policy	Default Value
Merge policy	Default Value

Coded Values:

Code	Description
5	71-100 ft of vegetation treatment completed
7	30-70 ft of vegetation treatment completed
15	<30 ft of vegetation treatment completed

OK Cancel Apply


Fire Safety Survey

Home Gallery Map Scene Groups My Content My Organization

Fire Safety Survey Edit

Overview Usage Settings

Edit Thumbnail



Map used by to collect Fire Safety Survey Data
by ccorwin15
Last Modified: August 17, 2016

Web Map

Add to Favorites

Description

Add an in-depth description of the item.

Layers

- DipSites - Helicopter Water Dip Sites
- HeliLZ - Heli Landing Zone Points
- HeliLZ - Helicopter Landing Zone Area
- StructureAssessment - Fire Wise Assessment
- Fire Safety Surveys
- Hydrants
- ParcelLayer
- Topographic
- Topographic

Access and Use Constraints

Open in Map Viewer

Open in ArcGIS for Desktop

Create Presentation

Create Web App

Share

Details

0 ratings, 74 views

Created: June 16, 2016

Size: 16 KB

Shared with: Organization, Blaine County Fire Volunteers, Blaine County Fire

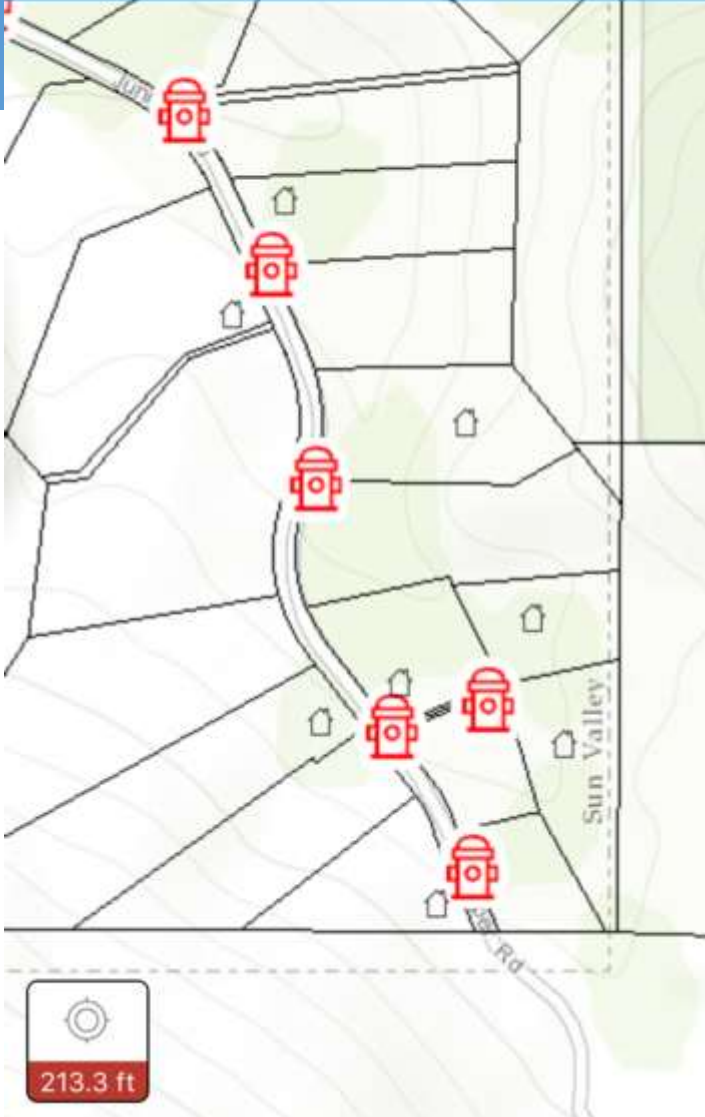
Owner: ccorwin15

Folder: PublicSafety

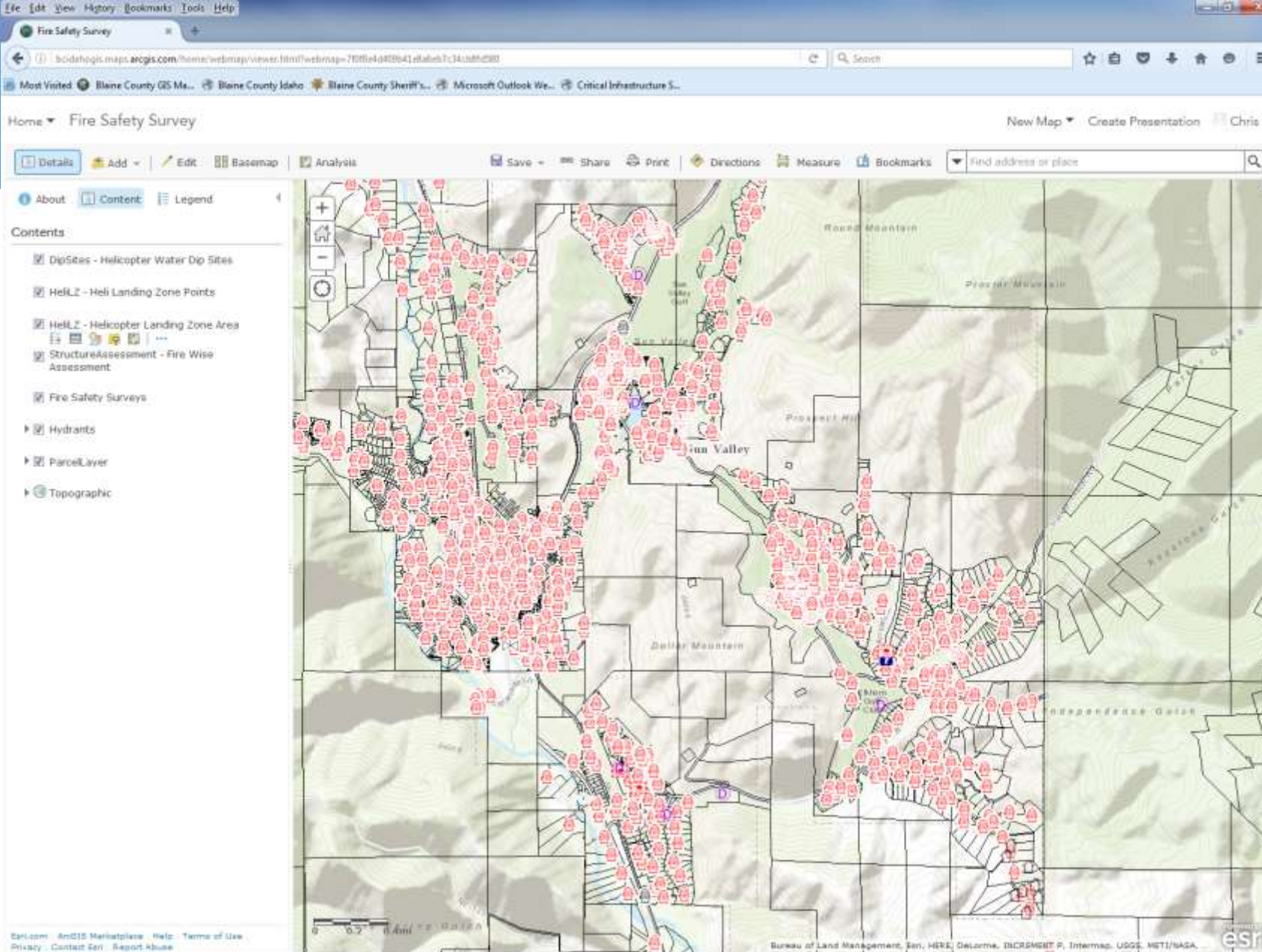
Tags: Blaine County, Fire, Safety, Survey, Data, Idaho

Verizon LTE 11:26 AM 72%

Maps More



213.3 ft



Verizon LTE 11:26 AM 72%

Map Details

Location
Lat: 43.65785657° Long: -114.30831461°

e y

Fire Wise Assessment: 515 Juniper Road

latitude
43.66

longitude
-114.31

address
515 Juniper Road

contact
Thorsen

Contact Phone
9172244845

Contact Email

Was Owner Present
No

Occupancy Type
Residential

Building Size
2,500

Outcomes Achieved in Implementation and Lesson Learned

- Using readily available tools, quickly and efficiently gather data to help properly mitigate and plan for a wildfire.
- Publish the results for neighbors to see to help educate them on risks in hope for mitigation work.
- Use data as a red rock/green rock tool in wildfire situation to better plan of attack.
- Lessons Learned
 - Brain storm and brain storm more about the data you want to collect.
 - Make one web map for editing and one for viewing
 - Make a proof of concept before pitching idea
 - Be patient, if you build it, they will come.

Take-Away Message

- Don't forget about the power and ubiquitousness of the smartphone.
- Or of your paid-on-call or volunteer staff
- Large amounts of pre-disaster planning data can be collected quickly and efficiently using Smartphone Apps
- Web Mapping is a powerful tool to share data and potentially crowd-source data
- Start using Apps and Collecting Data and Setting up datasets BEFORE the emergency