

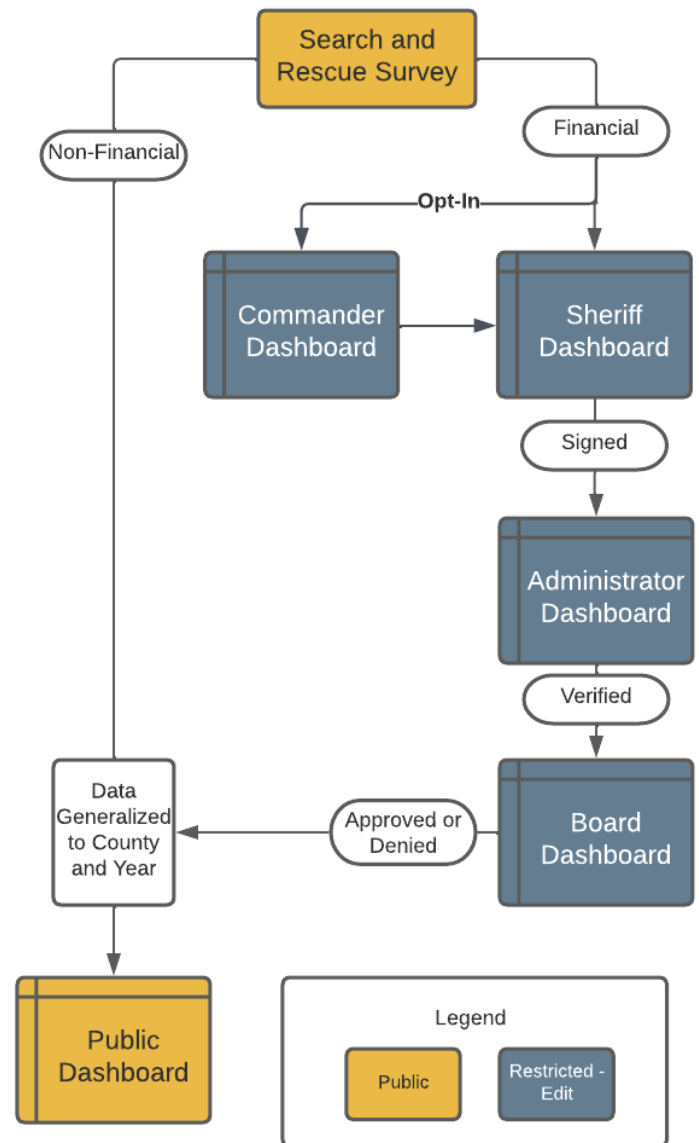
Search and Rescue Process Guide

The State of Utah's Division of Emergency Management is rolling out a digital process to collect search and rescue information and financial assistance applications. This process will streamline application submission and approval, as well as data collection and visualization.

Updated May24th, 2022 by Julia Surkis

Purpose and Overview

The intention of this process is to reduce the redundancy of paperwork and data entry, as well as improve data awareness to assist in decision making. There is a previous paper form that has been used in the past to collect financial assistance applications for Search and Rescue Reimbursement. This form has been digitized into a survey available on the web, which is sent to the appropriate audiences for signature and approval based on submission content. If a survey is collected without a financial request, it is immediately used for statistical purposes and displayed in the public dashboard, as well as the informative map for responders. If a survey is collected with a financial request, it is sent to the respective county sheriff's dashboard, where he or she can review and sign all the submissions for their county. Once a financial request application has been signed, it is sent to the state administrator's dashboard, who will ensure all the appropriate documentation is included. The state administrator will then approve the application for board review, or put it on hold while waiting for additional information or attachments. The board is then able to review and then approve or deny the applications that are complete. Once a financial application is reviewed, it will be summarized and published to the public dashboard and responder map for informative purposes. The responder map and public dashboard have restricted data access so they are not able to view personally identifiable or specific financial information. This process will undergo a verification process and report annually to ensure only the appropriate credentialed people are accessing and editing the data.



Products

1. [Web-Based Survey](#) for submission of financial assistance applications, as well as non-financial assistance data collection for SAR efforts
 - a. [Technical Management Guide](#)
2. [Field App for Commander Review](#) for submission of financial assistance applications, as well as non-financial assistance data collection for SAR efforts
 - a. [Technical Management Guide](#)
3. [Web-Based Dashboard for Sheriffs](#) with restricted access to review and sign applications with a financial request submitted within their county
 - a. [Technical Management Guide](#)
4. [Web-Based Dashboard for State Administrator](#) with restricted access to preview signed applications, and ensure all necessary attachments are present
 - a. [Technical Management Guide](#)
5. [Web-Based Dashboard for SAR Advisory Board Members](#) with restricted access to review and approve or deny applications with financial requests
 - a. [Technical Management Guide](#)
6. [Web-Based Dashboard for the Public](#) with aggregated and summarized information about Search and Rescue within the state, as well as generalized financial summary statistics
 - a. [Technical Management Guide](#)
7. [Annual Audit Report](#) to ensure the security and integrity of the data collected through this process
 - a. [Technical Management Guide](#)

User Guides

This section breaks down each product for its intended audience, with steps and explanations on how to use it.

Web-Based Survey

The survey can be accessed [here](#), and is intended for Search and Rescue commanders or administrators to submit information about a search/rescue, training, or equipment. The questions that are visible on the survey will change depending on the type of submission it is (search/rescue, training, equipment).

Watch a video of submitting the survey for a search/rescue [here](#).

Watch a video of submitting the survey for training [here](#).

Watch a video of submitting the survey for equipment [here](#).

There are two main questions/issues that might come up:

1. If you start taking the survey for one topic (i.e. training), but change your mind about what you're entering and switch topics (i.e. to search/rescue), this can impact the data. In order to avoid incorrect submission or errors, refresh the page and start over before switching types.
2. There are two sections within the search/rescue questions that allow you to add multiple answers. These questions are about victims and equipment used. For each victim, enter their name and then answer the questions that pop up about their residency. If that is the only victim you may continue on, if you need to add more, click the (+) at the top of the screen next to "Victims," then fill out the name/residency information for the next victim. It's the same process with the equipment used, only you are recording the hours/miles and number of responders onboard instead of the residency. You can also delete a victim or piece of equipment by clicking the trash can.

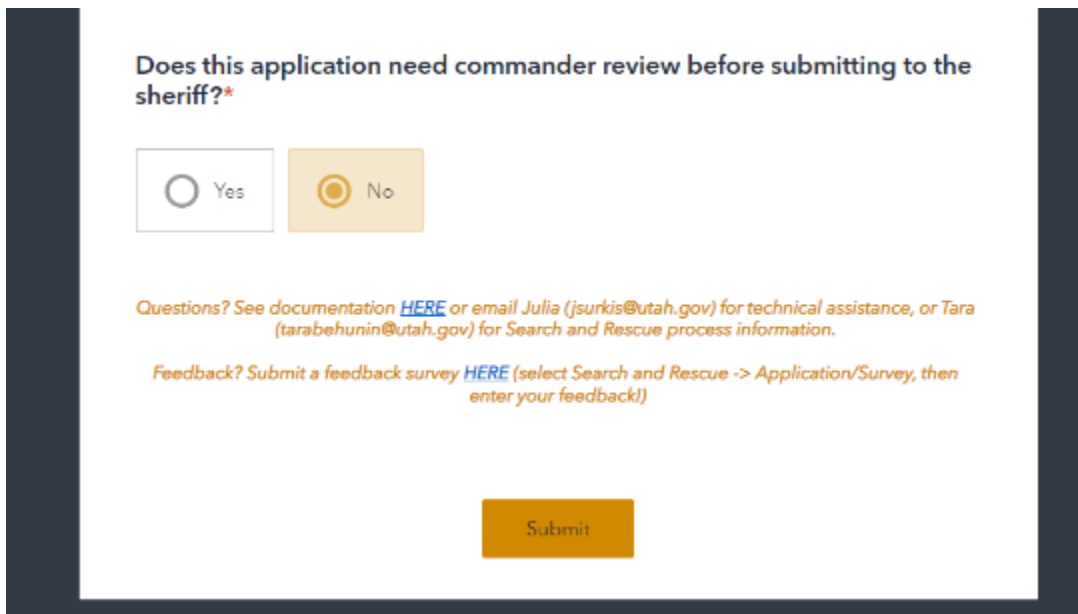
If you encounter an error, and are unable to submit, please click ctrl + P to print the survey then submit a feedback survey [HERE](#).

Commander Review App

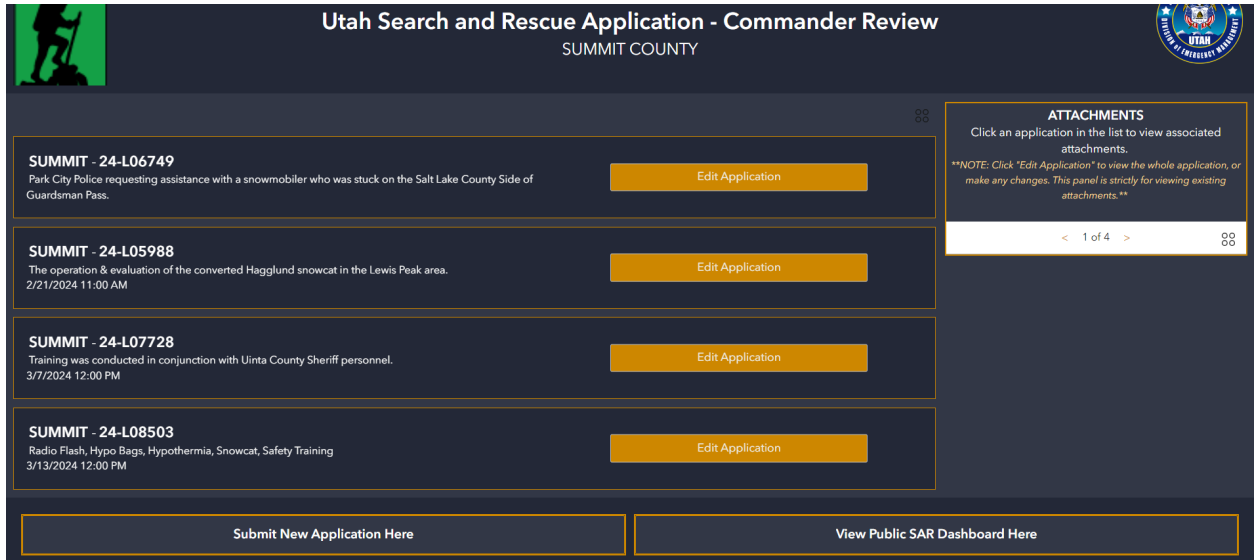
This is an opt-in portion of the Search and Rescue Application process, and is only relevant to counties that have opted to have an additional step of review before an application is officially submitted.

This review is completed via a Website specific to each county that has enrolled. The links to the current commander review apps can be found below (login-restricted).

1. An application will only go to commander review if the last question in the form (needs commander review) is “Yes”, and that is only a question that shows up for counties that have enrolled in this process.

A screenshot of a web form titled "Does this application need commander review before submitting to the sheriff?*" with two radio button options: "Yes" (unselected) and "No" (selected). Below the options, there is a line of text: "Questions? See documentation [HERE](#) or email Julia (jsurkis@utah.gov) for technical assistance, or Tara (tarabehunin@utah.gov) for Search and Rescue process information." followed by another line: "Feedback? Submit a feedback survey [HERE](#) (select Search and Rescue -> Application/Survey, then enter your feedback!)" and a large orange "Submit" button at the bottom.

2. The commander must log in using their given ArcGIS Online credentials
[IRON](#)
[DAVIS](#)
[WASATCH](#)
[WASHINGTON](#)
[GRAND](#)
[SUMMIT](#)
[UTAH](#)
3. The surveys that need to be reviewed can be accessed by clicking on the “Edit Application” button next to the appropriate Case #



The image shows a web application titled "Utah Search and Rescue Application - Commander Review" for SUMMIT COUNTY. It features a dark blue header with a green silhouette of a person on a snowmobile on the left and the Utah State Seal on the right. The main content area is divided into two columns. The left column contains a list of four applications, each with a title, description, date, and an "Edit Application" button. The right column contains an "ATTACHMENTS" section with instructions and a list of attachments. At the bottom, there are two buttons: "Submit New Application Here" and "View Public SAR Dashboard Here".

Application ID	Description	Date	Action
SUMMIT - 24-L06749	Park City Police requesting assistance with a snowmobiler who was stuck on the Salt Lake County Side of Guardsman Pass.		Edit Application
SUMMIT - 24-L05988	The operation & evaluation of the converted Hagglund snowcat in the Lewis Peak area.	2/21/2024 11:00 AM	Edit Application
SUMMIT - 24-L07728	Training was conducted in conjunction with Uinta County Sheriff personnel.	3/7/2024 12:00 PM	Edit Application
SUMMIT - 24-L08503	Radio Flash, Hypo Bags, Hypothermia, Snowcat, Safety Training	3/13/2024 12:00 PM	Edit Application

ATTACHMENTS
Click an application in the list to view associated attachments.
NOTE: Click "Edit Application" to view the whole application, or make any changes. This panel is strictly for viewing existing attachments.

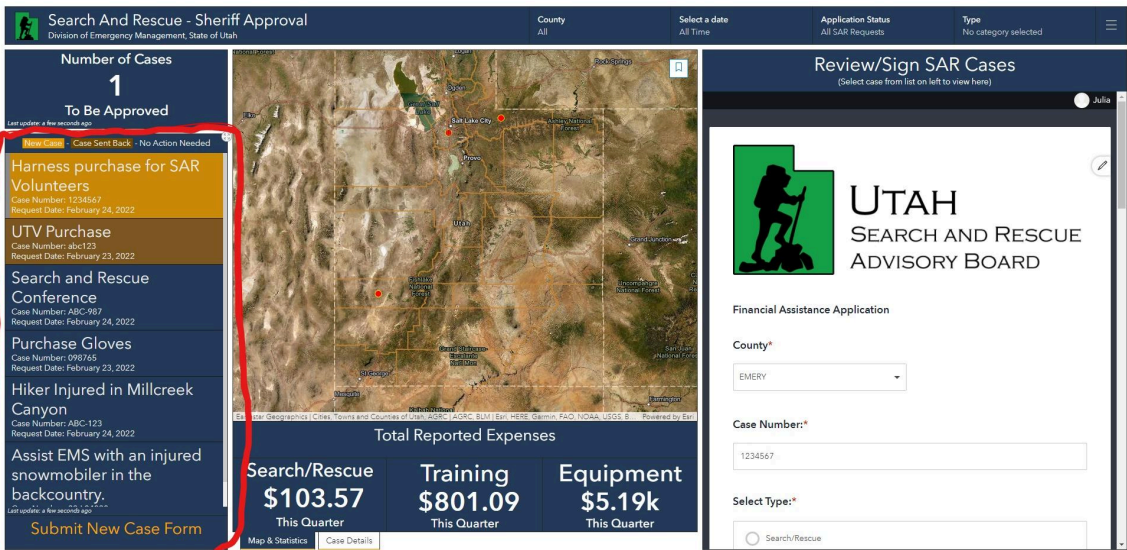
< 1 of 4 >

[Submit New Application Here](#) [View Public SAR Dashboard Here](#)

- When editing an application, it will show up very similar to your initial submission, you can make changes and submit again and again with it staying in your dashboard. However, **if you change the last "Commander Review" question to "No" then it will be sent to the sheriff and will no longer be editable in the inbox.**
- If you'd like to view any attachments that have already been submitted, click the big blue box (where it says the county and case #) for the application you'd like, and the attachments will automatically show up on the right side of the screen (if there are any).

Web-Based Dashboard: Sheriffs

This dashboard is login protected and can only be accessed by the county sheriff. Each county is restricted to only seeing incidents, training and equipment purchases submitted for their county. The purpose of this dashboard is for Sheriffs to review and sign all the Search and Rescue Applications submitted for their county.

What is it?	What do I do with it?
	
The List	
The list is on the left side of the screen and shows all of the applications submitted within the respective county, color-coded to show what action needs to be taken. The bright orange are new cases that need to be reviewed, signed and dated. The plain blue cases don't have any required action, they are applications that do not have any financial component and are purely statistical.	The list is interactive, and allows you to click on any of the cases to have their information appear in the survey as well as the case details. Clicking on a case in the list allows the sheriff to review and sign each case that they need to. When an item in the list is selected, you will see a gray bar on the left side of the box. The list can be filtered using the category selectors at the top of the screen (explained below).

Search And Rescue - Sheriff Approval
Division of Emergency Management, State of Utah

County: All | **Select a date:** All Time | **Application Status:** All SAR Requests | **Type:** No category selected

Number of Cases: 1 To Be Approved

Case List:

- Harness purchase for SAR Volunteers**
Case Number: 1234567
Request Date: February 24, 2022
- UTV Purchase**
Case Number: abc123
Request Date: February 23, 2022
- Search and Rescue Conference**
Case Number: ABC-987
Request Date: February 24, 2022
- Purchase Gloves**
Case Number: 098765
Request Date: February 23, 2022
- Hiker Injured in Millcreek Canyon**
Case Number: ABC-123
Request Date: February 24, 2022
- Assist EMS with an injured snowmobiler in the backcountry.**
Case Number: ABC-123
Request Date: February 24, 2022

Total Reported Expenses

Category	Amount	Period
Search/Rescue	\$103.57	This Quarter
Training	\$801.09	This Quarter
Equipment	\$5.19k	This Quarter

Review/Sign SAR Cases
(Select case from list on left to view here)

UTAH SEARCH AND RESCUE ADVISORY BOARD

Financial Assistance Application

County: EMERY

Case Number: 1234567

Select Type: Search/Rescue

The Category Selectors

The category selectors are on the top right of the dashboard screen and show different options for filtering the cases seen in the list, on the map, or reflected in the statistics. The default is showing all the available cases.

The category selectors are used to filter the data shown in the dashboard to make it easier to understand or look at.

The county filter (furthest left) will not show up on individual county dashboards as these dashboards will already filter for applications within the county.

The date filter (second from left) allows filtering the list by date. The current options for this filter are: this quarter, last quarter, this year, last year or all time.

The application status filter (second from right) allows filtering by – you guessed it – application status. This could be used for the sheriff to filter only cases that are awaiting his or her signature. The user may select one or multiple categories here, with the options being: 1. Waiting on Sheriff Signature, 2. Sent back to Sheriff, 3. On Hold (administrative) 4. Waiting on Admin (administrative), 5. Reviewed and Denied (administrative), 6. Reviewed and Approved (administrative), 7. Waiting on Board (administrative), and 8. No Financial Assistance request.

The type filter (furthest right) allows filtering by application type, with the options being: Search/Rescue, Training or Equipment.

Search And Rescue - Sheriff Approval
Division of Emergency Management, State of Utah

County: All | Select a date: All Time | Application Status: All SAR Requests | Type: No category selected

Number of Cases
1
To Be Approved

Case List:

- Harness purchase for SAR Volunteers**
Case Number: 1234567
Request Date: February 24, 2022
- UTV Purchase**
Case Number: abc123
Request Date: February 23, 2022
- Search and Rescue Conference**
Case Number: ABC-987
Request Date: February 24, 2022
- Purchase Gloves**
Case Number: 098765
Request Date: February 23, 2022
- Hiker Injured in Millcreek Canyon**
Case Number: ABC-123
Request Date: February 24, 2022
- Assist EMS with an injured snowmobiler in the backcountry.**
Request Date: February 24, 2022

[Submit New Case Form](#)

Total Reported Expenses

Search/Rescue	Training	Equipment
\$103.57	\$801.09	\$5.19k
This Quarter	This Quarter	This Quarter

Review/Sign SAR Cases
(Select case from list on left to view here)

UTAH SEARCH AND RESCUE ADVISORY BOARD

Financial Assistance Application

County*: EMERY

Case Number*: 1234567

Select Type*: ☐ Search/Rescue

The Survey

The survey is on the right side of the dashboard and shows an interactive and editable view of data associated with the case selected in the list (explained above). This does not show the entirety of the application, only fields that are relevant to the sheriff. The survey allows the user to scroll through the survey to view and edit fields, with a button to submit at the bottom.

The survey in this dashboard is used primarily for the sheriff to review and sign the case application. **It is important that the date is changed to the date it is signed, and the point of contact information is verified.** Once any changes have been made, they will only be saved after scrolling to the bottom and clicking submit (process shown below). The list on the left will change to reflect that the case has been signed within a few seconds of clicking submit.

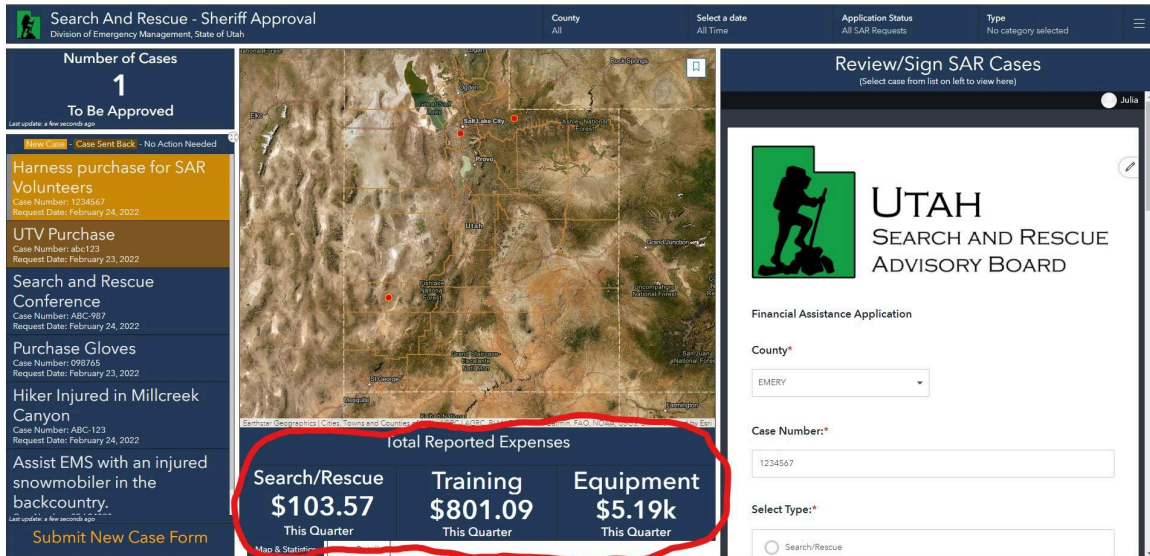
Request Information

Request Date: 2/24/2022

Request Approved by (sheriff):

I certify that the above report and listing of expenses is true and correct. I have attached all applicable receipts and understand that I am responsible for disbursement of monies to all agencies or groups that assisted in this search incident. I also further certify that no part of the foregoing claim has been paid by the State of Utah or any other source. Supportive documents may be available upon request. (Sign Below to Agree Expenses are Approved)

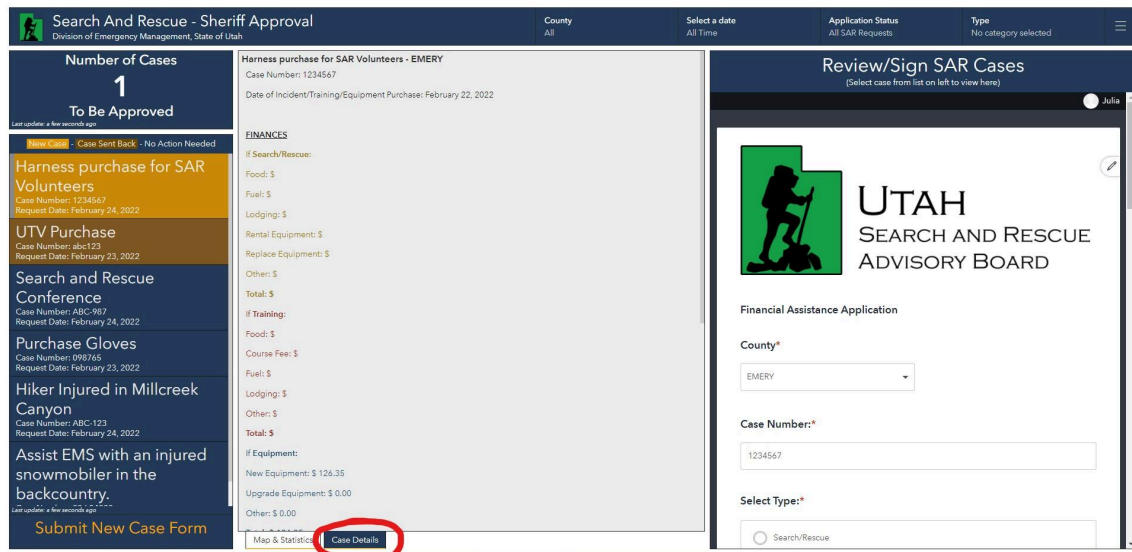
[Sign Below to Agree Expenses are Approved](#)



The Statistics

The statistics are shown at the bottom center of the screen, so long as the “Map & Statistics” tab is selected. This section summarizes the amount of money noted in the applications, broken down by type.

The statistics are just there for awareness of the sheriff. They can be filtered to only reflect a certain time period, or application status using the category selectors (explained above). The default is that the statistics are filtered to only show this quarter’s expenses.



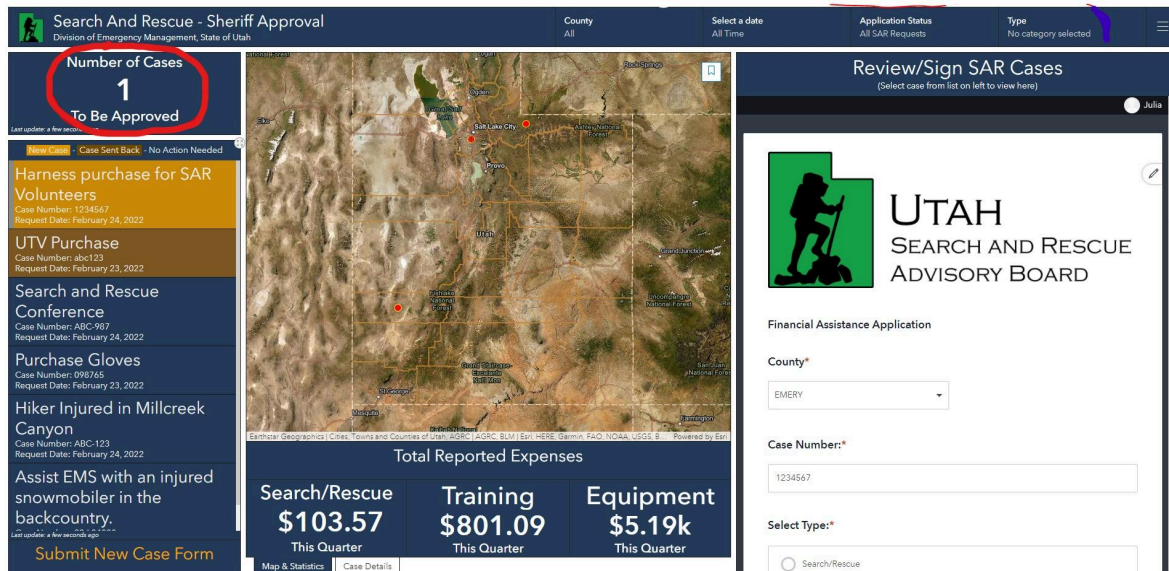
The Case Details

The case details is a tab at the bottom of the screen, hidden behind the map and expense statistics. This shows the same information that would appear in a pop-up if a specific incident is clicked on the map

The case details are used to review specific financial breakdown (i.e. food, fuel, lodging), and can be used to get better awareness of the case expenses. This screen will update based on which case is selected in the list, similar to

(explained below). This does not show all the details associated with a case, it only shows the case number, the summary, the finances and the attachments (if available).

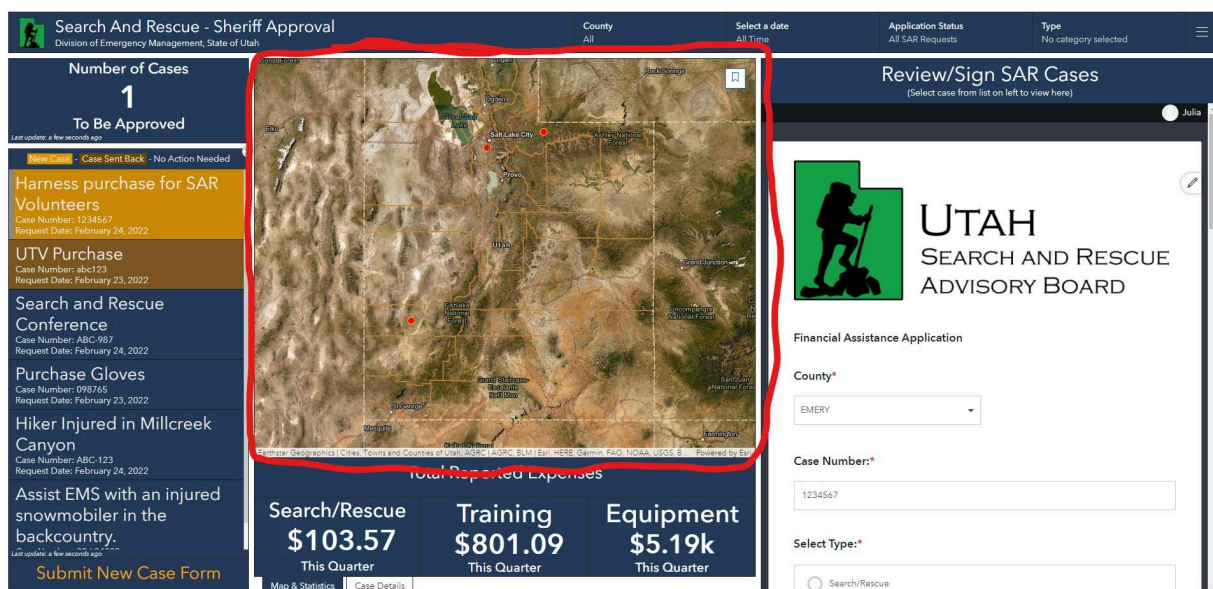
the survey (explained above).



The To-Do Counter

The to-do counter on the top left of the screen if the sheriff's dashboard shows the number of cases that have not yet been signed by the sheriff.

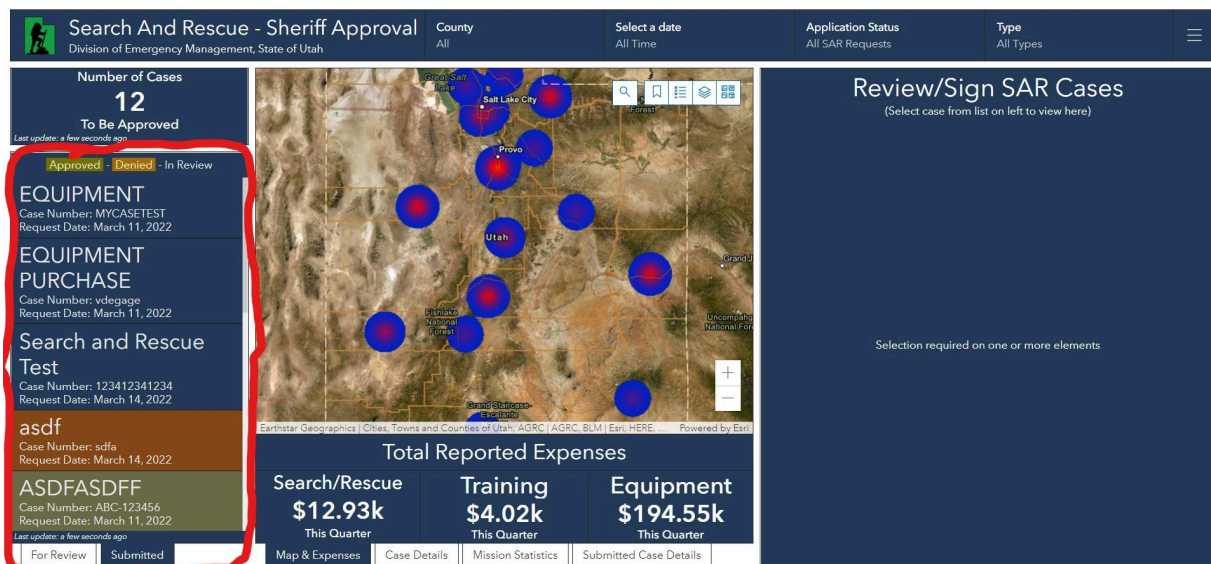
The to-do counter is used to indicate how many cases are left to be signed/approved. This will automatically update a few seconds after an application has been signed and submitted.



The Map

The map is shown at the center of the dashboard, unless the case details tab is selected.

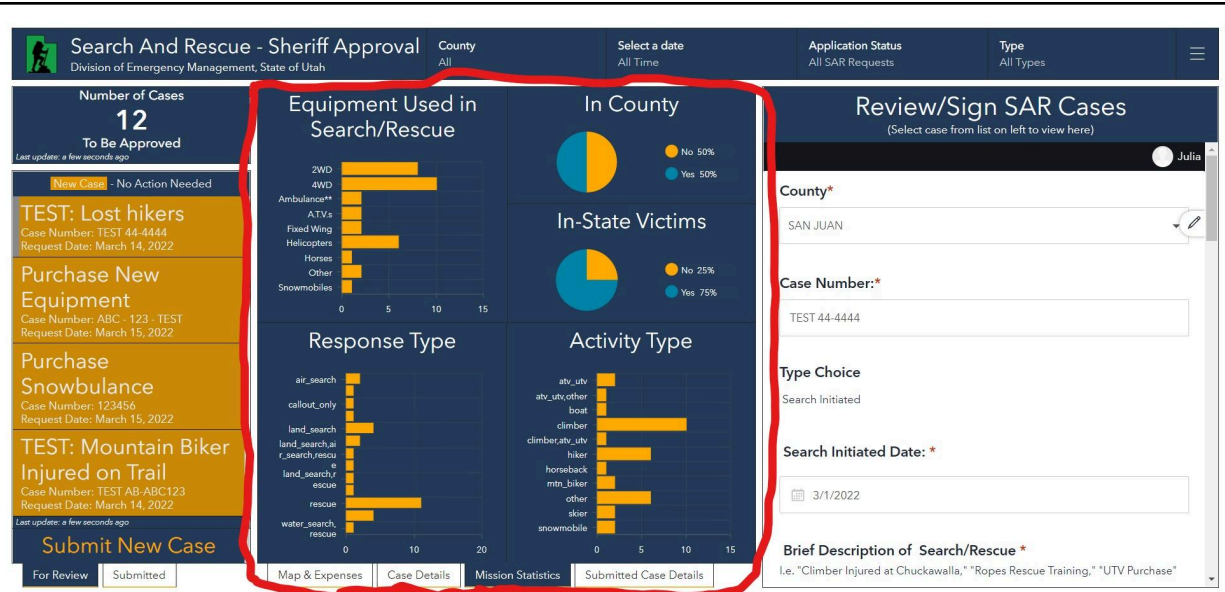
The map shows the location of the searches, rescues, and trainings that appear in the list. If no location was input for the case, the default is the center of the reporting county. The default map settings show a hotspot map (highlighting where most activity occurs). The layers shown in the map can be toggled on/off using the  box in the upper right of the map. The  icon will show the legend and the  will allow you to change the basemap.



The Submitted List

The submitted list allows sheriffs to view cases that have been signed and submitted, along with some relevant details. Cases that have been approved appear in green, cases that have been denied appear in brown, and cases that are waiting to be reviewed by either the admin or the board appear in blue.

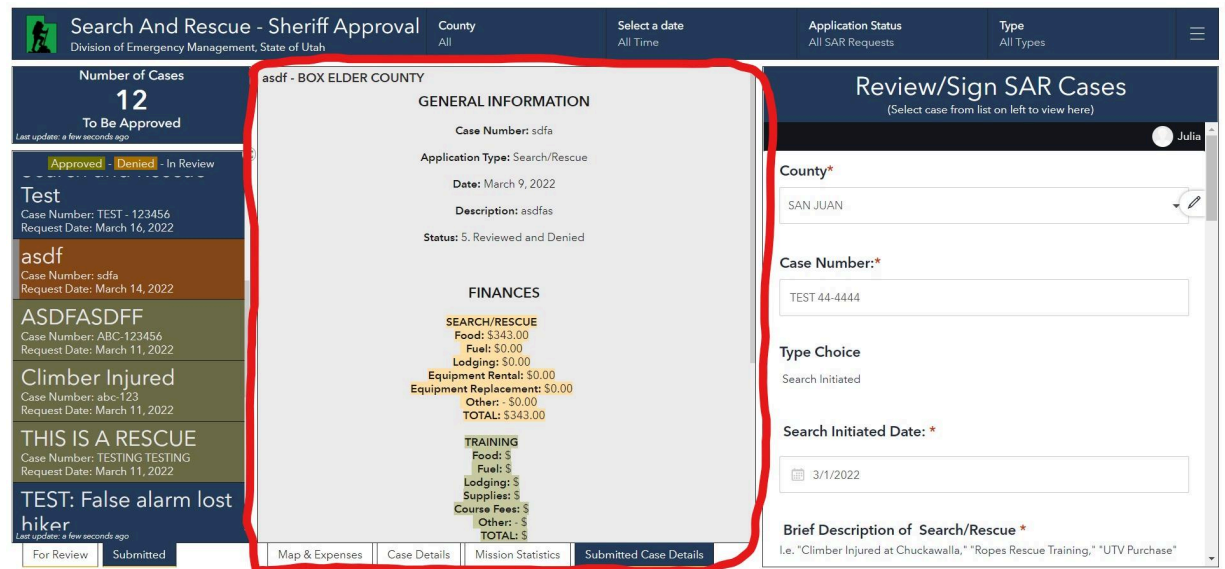
The submitted list is interactive, and allows you to click on any of the cases to have their information appear in the Submitted Case Details pane (explained below). Clicking on a case in the list allows the sheriff to review cases that have already been signed and submitted. When an item in the list is selected, you will see a gray bar on the left side of the box. The list can be filtered using the category selectors at the top of the screen (explained below).



The Mission Statistics

The mission statistics are shown in a tab "under" the map and case details. This section shows aggregated summary statistics about the missions reported within the respective county.

The mission statistics are somewhat interactive, and can be filtered to show only cases that have a specific time range, or application status by using the category selectors (explained above) at the top. You can hover over the bar chart or pie chart segments to review more specific counts.



The Submitted Case Details

The case details is a tab at the bottom of the screen, hidden behind the map and expense statistics. This does not show all the details associated with a case, it only shows

The case details are used to review specific financial breakdowns (i.e. food, fuel, lodging) for cases that have already been signed and submitted. This screen will update based on

the case number, the summary, the finances and the attachments (if available). This specifically shows information about cases that have already been submitted.	which case is selected in the Submitted List, similar to the survey (explained above).
--	--

Web-Based Dashboard: Administrator

Web-Based Dashboard: Board Members

Web-Based Dashboard: Public

Annual Audit Report

This will be a report that is created annually to verify the security of the Search and Rescue data stored within ArcGIS Online. The contents of the report will include:

- View count of editable layer
- View count of non-editable layers
- Verification that the last update of each item (survey entry) is by either the original submitter, the appropriate county sheriff, or a state board member
- Summary of all non-financial reported events for each county, to be verified by county commander or sheriff
- *Summary of IP locations used to access the survey, and each of the dashboards and maps

Technical Management Guides

This section is intended for GIS Analysts or Managers who intend on maintaining these products or similar through ESRI licenses.

General Requirements

- ArcGIS Online Administrative Privileges
- Survey123 Connect for Desktop

General Data Flow and Management

This whole process only points at one main feature layer which is hosted in ArcGIS Online and was created from the survey published in Survey123 Connect. There are views that have been created from this main feature layer for submission (public) and for review (editable). Most of the customization to restrict what is seen, where, is done either in the Survey123 Connect calculations or relevant fields, or using URL configurations for embedding the survey into the dashboards. There are a few key tricks that have been used in this process apart from normal survey and dashboard configuration that will be outlined below.

Links to Content

Survey: <https://survey123.arcgis.com/share/a00c7e240b9e4762b85ee3be3a0a42c5>

Main Survey Overview:

<https://survey123.arcgis.com/surveys/1af2d4df9655407b8315fe8d75d4e578/overview>

Submission Survey Overview:

<https://survey123.arcgis.com/surveys/a00c7e240b9e4762b85ee3be3a0a42c5/overview>

Review Survey Overview:

<https://survey123.arcgis.com/surveys/2092a726f297469b8c4e8851e65065d7/overview>

Map:

<https://utah-em.maps.arcgis.com/home/item.html?id=9c5c162f831b47e486cb4904b9f27031>

Feature Layer - Main:

<https://utah-em.maps.arcgis.com/home/item.html?id=58d4c7c1ce914ee4bfab3eb7f3203932>

Feature Layer - Submission View:

<https://utah-em.maps.arcgis.com/home/item.html?id=7ddcbb5993a54ad5b258052aebcb2a64>

Feature Layer - Review View:

<https://utah-em.maps.arcgis.com/home/item.html?id=9cfe5d169a4e4b34a79c8640b7a924ee>

Sheriff Dashboard - Overview:

<https://utah-em.maps.arcgis.com/home/item.html?id=b3202458b9c34397aa9d716d819d922b>

Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/b3202458b9c34397aa9d716d819d922b>

Administrator Dashboard - Overview:

<https://utah-em.maps.arcgis.com/home/item.html?id=17d08965564048f183b4d2b74fd9dco6>

Administrator Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/17d08965564048f183b4d2b74fd9dco6>

Board Dashboard - Overview:

<https://utah-em.maps.arcgis.com/home/item.html?id=635c64c8d4374537acf7d1e9954c501b>

Board Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/635c64c8d4374537acf7d1e9954c501b>

SAR Board Group - Overview:

<https://utah-em.maps.arcgis.com/home/group.html?id=cf92545329cb4af08381564d15884f4a#overview>

Beaver Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/04496d85669e40f9bf96edo830631b4d>

Box Elder Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/253aa976ddac434da37ed6fc28503927>

Cache Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/320b250ff3964730806ce606e4fe18a5>

Carbon Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/d70e1441f6b2442680dfdb7eb2245222>

Daggett Sheriff Dashboard:

Davis Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/56c314b717ae441da6820dbe9600d2b4>

Duchesne Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/65fa88e93ffc44d7840dadb2d90a98aa>

Emery Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/79245fe9829b442d94b846445f368d15>

Garfield Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/ae800c7cdd484e3e8810f0586a15e8ba>

Grand Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/62e3a4ab8170480b9fcf395891861ceo>

Iron Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/2e62ff08964246f2b5e24a03bdb1798f>

Juab Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/def967b3ac614ec1a5839c60e4c889b8>

Kane Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/894565e0fba54534b4c44b6115046531>

Millard Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/30caa5cd676047e5a0a0e9faddc68366>

Morgan Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/f778b14c414b47c99591a8a6coe7bbad>

Piute Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/37e43988135b41fc96c94ac60acf0ca2>

Rich Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/f573e138a8a6493799b04abeef7e673e>

Salt Lake Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/36e5efc11aa44f9a9c90c64eff645cc7>

Sanpete Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/36e5efc11aa44f9a9c90c64eff645cc7>

San Juan Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/4a23ac01f7a0418980a980ba57977a9a>

Sevier Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/ff8d1a6d9201401aa585950d44f2d841>

Summit Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/f2248ae69c4c4b88be3285a0ae5a3534>

Tooele Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/81e68960fdb4437db04d5f31b71b6288>

Uintah Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/cfa8fa95f4d64b2d92dod3e317b2b34c>

Utah Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/a12c9f82f95c457c86864395022bddc6>

Wasatch Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/31d96a63929a4c5db7e3252ba6c23e29>

Washington Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/6boeba5d91804d3a8d4cc2foddca9f62>

Wayne Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/6885468fa3674fc68c5d61fd88562995>

Weber Sheriff Dashboard:

<https://utah-em.maps.arcgis.com/apps/dashboards/b184cff094bb4f42ae47d01ee1008c33>

Web-Based Survey

The Survey123 connect excel workbook used for this project (updated as of 5/24/22) can be accessed [here](#).

If-Then with Dates (Annoying)

There are a few instances in this process where dates are used to show/hide or filter something.

1. Use the search date to give notice of when the application will be considered late
2. Use attachments question to give notice of when additional attachments will be considered late
3. Use the sheriff signature date to show, highlight or count a case on the dashboard.

Hide in Survey, Show in Dashboard

There is a column in survey123 connect that allows you to only show a question when the survey is in edit mode. Since the survey is not in edit mode for initial submission, but is in edit mode for the sheriff, admin and board dashboards, this is used to hide questions that should not be shown to the initial submitter. This is particularly useful for approval and signature questions. The column that needs to be used for this is *body::esri:visible*, and the code that must be entered for the appropriate row is *pulldata("@property", "mode") = 'edit'*. I will note here, that I haven't successfully found a way to make a question "required" while in edit mode, but I have gotten around that by hand entering a red star and "This is a Required Question," under all the questions I want answered – this doesn't actually make it required but does pretty well without that capability. Also be careful with "relevant" fields, I've had some success and some trouble with adding relevant constraints to edit mode fields.

Fancy Survey Formatting

These survey formatting tips may be obvious to some, but this just highlights things I had to learn in order to format the survey in its current state.

1. **Bullets** - Use *TEXTTEXT2* for TEXT and TEXT2 to show up in a bulleted list
2. **Logo** - To add a large logo at the top of the survey, add a .png to the media folder of your survey ([see here](#)), add a note type row at the top of your survey, then enter *PNGNAME.png* in the *media::image* column of the survey

3. **Impactful Notice** - To make a notice pop up when a certain selection is made, or a question is answered, add a note type question below it, adjust the relevant column so it only shows up when you want it to (i.e. `${attachments_added}="no"`). Add the notice that you want in the label column, with `<div style="background-color:#HEXNUM;">TEXT </div>` to change the background color. You can also add `<br>` before and after your text to make the background color appear more symmetrically around the text.
4. **Deadlines** - this is really a continuation of the impactful notice, but a deadline can be added to a notice (or any label or hint) based on an entered date using a calculation in a hidden type row. Dates are kinda funky in Survey123, but you can format the calculation like `format-date(date(decimal-date-time(${search_date}) + 90),'%m/%d/%Y')` to return the date 90 days after the previously entered search date ([see here](#)). I should also mention – if you're getting an error on submission of the survey or the subsequent dashboards, one of the first things to check is the date fields, because they are usually the culprit.
5. **Table- and Field-List** - Don't do it! The appearance type seems to work well in the initial survey submission, but for some reason breaks the dashboard/edit-mode submissions. Find other appearances to use for your questions.
6. **Relevant Fields in Calculations** - Again, don't do it! Calculating the sum of the `search_total`, `training_total` and `equipment_total` does not seem to work (likely because those fields only "show up," based on a relevant constraint). However, since we just want to know the total expenses, and in every situation 2 of the 3 columns would be zero (based on whether it is a search, training or equipment submission), we can use a workaround of `if(${type_choice}="searchRescue",${search_total},if(${type_choice}="training",${training_total}, if(${type_choice}="equipment",${equipment_total},0)))`.
- 7.

Web-Based Dashboard for Sheriffs

The main function of this dashboard is for Sheriffs to be able to view all the incidents and applications that happen within their county, as well as sign and approve applications that have a financial assistance request. The primary functionality of the dashboard comes from the list and embed widgets.

The embed widget parameters are shown below, followed by the full URL parameter. A summary of the capabilities of url parameters can be found [here](#).

General options

Name: Embedded content (1)

Title: [Maximum](#)

B I U A - | **Format** | **Size** | **Font** | **Source**

Review/Sign SAR Cases
(Select case from list on left to view here)

Description: [Edit](#)

Text color: ☐

Background color: ☐

Last update text: ☐

No data

Label: [Edit](#)

Show title: ☒

Show description: ☒

No selection

Show title: ☒

Show description: ☒

Data options [Show data table](#)

Type: [Static](#) [Features](#)

Layer: Utah SAR Financial Assistance Application [Change](#)

Filter: [+ Filter](#)

Content Type: [Document](#) [Image](#) [Video](#)

URL: [Fields: {}](#)
https://survey123.arcgis.com/share/464fe560d09b487f95a801cde595ecb97mo

Maximum features displayed: 50

Sort by: [Add field](#)

Dashboard/Survey123 embed URL parameters:

https://survey123.arcgis.com/share/2092a726f297469b8c4e8851e65065d7?mode=edit&globalId={globalid}&county={county}&case_number={case_number}&t_choice_descriptor={t_choice_descriptor}&search_date={search_date}&t_choice_descriptor2={t_choice_descriptor2}&description={description}&search_total={search_total}&training_total={training_total}&equipment_total={equipment_total}&request_date={request_date}&check_address={check_address}&descriptors={descriptors}&incident_description={incident_description}&approved={approved}&admin_approval={admin_approval}&hide=field:response_type,field:rescue_techniques,field:search_techniques,field:results,field:rescue_dateTime,field:results_type,field:reporting_person,field:result_sums,field:found_number,field:rescued_number,field:recovered_number,field:reason_mission_terminated,field:found_area,field:clues_found,field:equipment_results,field:equip_results,field:amb_note,field:equip_name,field:equip_note,field:equip_time,field:equip_people,field:mission_closed,field:location,field:land_ownership,field:latitude,field:longitude,field:calc_location,header,footer,field:incident_location,field:usara,field:personnel_hours,field:paid_personnel,field:volunteer_sar,field:volunteer_non_sar,field:total_hours,field:attachments_group,field:attachments,field:approved,field:denied,field:search_expenses,field:search_food,field:search_fuel,field:search_rental_equip,field:search_replace_equip,field:search_other,field:search_other_amount,field:training_expenses,field:course_name,field:training_food,field:training_fuel,field:training_course_fee,field:training_supplies,field:training_other,field:training_other_amount,field:equipment_expenses,field:equip_explain,field:upgrade_equip,field:new_equip,field:equipment_other,field:equipment_other_amount,field:requester_name,field:requester_pos,field:request_received_date,field:request_received_by,field:victims,field:victim_name,field:in_county,field:in_state,field:activity,field:situation,field:victim_checkpoint,field:last_known_posi

[tion,field:approved,field:denied,field:for review,group:response,field:response,field:submission notice,group:subject information,field:subject information,field:admin approval,field:admin code,field:type choice,field:admin code,field:total expenses,field:print notice&descriptions={descriptions}](#)

New URL (03/31/22):

https://survey123.arcgis.com/share/2092a726f297469b8c4e8851e65065d7?mode=edit&globalId={globalid}&county={county}&case_number={case_number}&t_choice_descriptor={t_choice_descriptor}&search_date={search_date}&t_choice_descriptor2={t_choice_descriptor2}&description={description}&search_total={search_total}&training_total={training_total}&equipment_total={equipment_total}&request_date={request_date}&check_address={check_address}&descriptors={descriptors}&incident_description={incident_description}&approved={approved}&admin_approval={admin_approval}&hide=field:response_type,field:rescue_techniques,field:search_techniques,field:results,field:rescue_dateTime,field:results_type,field:reporting_person,field:result_sums,field:found_number,field:rescued_number,field:recovered_number,field:reason_mission_terminated,field:found_area,field:clues_found,field:equipment_results,field:equip_results,field:mission_closed,field:location,field:land_ownership,field:latitude,field:longitude,field:calc_location,header,footer,field:incident_location,field:usara,field:personnel_hours,field:paid_personnel,field:volunteer_sar,field:volunteer_non_sar,field:total_hours,field:attachments_group,field:attachments,field:approved,field:denied,field:search_expenses,field:search_food,field:search_fuel,field:search_rental equip,field:search_replace equip,field:search_other,field:search_other_amount,field:training_expenses,field:course_name,field:training_food,field:training_fuel,field:training_course_fee,field:training_supplies,field:training_other,field:training_other_amount,field:equipment_expenses,field:equip_explain,field:upgrade equip,field:new equip,field:equipment_otherfield:equipment_other_amount,field:requester_name,field:requester_pos,field:request_received_date,field:request_received_by,field:activity,field:situation,field:last_known_position,field:approved,field:denied,field:for review,group:response,field:response,field:submission_notice,group:subject_information,field:subject_information,field:admin_approval,field:admin_code,field:type choice,field:admin code,field:total expenses,field:print notice&descriptions={descriptions}

https://survey123.arcgis.com/share/2092a726f297469b8c4e8851e65065d7?mode=edit&globalId={globalid}&county={county}&case_number={case_number}&t_choice_descriptor={t_choice_descriptor}&search_date={search_date}&t_choice_descriptor2={t_choice_descriptor2}&description={description}&search_total={search_total}&training_total={training_total}&equipment_total={equipment_total}&request_date={request_date}&check_address={check_address}&descriptors={descriptors}&incident_description={incident_description}&approved={approved}&admin_approval={admin_approval}&approver_name={approver_name}&approved_date={approved_date}&POC_name={POC_name}&POC_email={POC_email}&POC_phone={POC_phone}&POC_correct={POC_correct}&POC_notes={POC_notes}&check_address={check_address}&hide=field:response_type,field:rescue_techniques,field:search_techniques,field:results,field:rescue_dateTime,field:results_type,field:reporting_person,field:result_sums,field:found_number,field:rescued_number,field:recovered_number,field:reason_mission_terminated,field:found_area,field:clues_found,field:equipment_results,field:equip_results,field:mission_closed,field:location,field:land_ownership,field:latitude,field:longitude,field:calc_location,header,footer,field:incident_location,field:usara,field:personnel_hours,field:paid_personnel,field:volunteer_

sar,field:volunteer_non_sar,field:total_hours,field:attachments_group,field:attachments,field:approved,field:denied,field:search_expenses,field:search_food,field:search_fuel,field:search_rental_equip,field:search_replace_equip,field:search_other,field:search_other_amount,field:training_expenses,field:course_name,field:training_food,field:training_fuel,field:training_course_fee,field:training_supplies,field:training_other,field:training_other_amount,field:equipment_expenses,field:equip_explain,field:upgrade_equip,field:new_equip,field:equipment_other,field:equipment_other_amount,field:requester_name,field:requester_pos,field:request_received_date,field:request_received_by,field:activity,field:situation,field:last_known_position,field:approved,field:denied,field:for_review,group:response,field:response,field:submission_notice,group:subject_information,field:subject_information,field:admin_approval,field:admin_code,field:type_choice,field:admin_code,field:total_expenses,field:print_notice&descriptions={descriptions}

The list widget is designed to show all of the applications that are relevant to the person accessing the dashboard. This only shows features that the user has access to, so once it is deployed for state-wide use, sheriff's will only be looking at a view layer for their county. A few things to note for this list:

- The list is sorted based off a calculated category field that is at the end of the Survey123 Connect .xlsx form:
 if({\$approved}='yes','6. Reviewed and Approved',if({\$approved}='no','5. Reviewed and Denied',if({\$admin_approval}='no','2. Sent Back To Sheriff',if({\$admin_approval}='hold','3. On Hold',if({\$admin_approval}="" and {\$POC_correct}!="','4. Waiting On Admin',if({\$admin_approval}="" and {\$POC_correct}="" and {\$search_total} > 0 or {\$training_total} > 0 or {\$equipment_total} > 0,'1. Waiting On Sheriff Signature',if({\$admin_approval}='yes' and {\$approved}="','7. Waiting on Board','8. No Financial Assistance Request'))))))))

This table and categorization just enables each user group to view their relevant applications in the order of importance for them.

	Sheriff Viewing Order	Admin Viewing Order	Board Viewing Order
1. Waiting on Sheriff Signature	1	-	-
2. Sent Back To Sheriff	2	3	-
3. On Hold	3	2	-
4. Waiting On Admin	4	1	-
5. Reviewed and Denied	5	-	3
6. Reviewed and Approved	6	-	2

7. Waiting on Board	7	-	1
8. No Financial Assistance Request	8	-	-

2. The list is also color coded uniquely in each dashboard, using the categories shown above and Arcade. The list configuration is shown below, followed by the arcade code used.

The screenshot displays the ArcGIS Dashboards configuration interface. On the left, the 'List options' panel is open, showing the 'Advanced formatting' tab. The 'Expression' field contains the following Arcade code:

```

1 //var approvedDate = Date($datapoint.approved_date)
2 //var defaultDate = Date(2001,0,1)
3 //var age = round(datediff(approvedDate,defaultDate,'days'))
4 //var ready = $datapoint.admin_approval
5 //var ready_num = if(ready=="no",1,0)
6 //var age_num = if(age<10,10,0)
7 //var dash_num = age_num + ready_num
8 //var oldBold = IIF(dash_num==10, '#CB8A07','')
9 //var oldBold = when(dash_num==10, '#CB8A07',defaultDate)
10
11
12
13 var category = $datapoint.category
14 var cat_color = when(category == '1. Waiting On Sheriff Signature', '#CB8A07',category=='2. Sent Back To Sheriff Signature','#7d5822','')
15
16 return {textColor: '',
17         backgroundColor: cat_color,
18         separatorColor: '#1a1a1a',
19         selectionColor: '#8a8a8a',
20         selectionTextColor: '',attributes: ''}
21

```

Below the expression field, the 'Line item template' section shows a preview of the list item with the following fields: {description}, Case Number: {case_number}, and Request Date: {request_date}. The 'Line item icon' is set to 'None'.

On the right, the resulting dashboard view is shown. It features a list of items with the following descriptions and case numbers:

- UTV Purchase (Case Number: abc123)
- Search and Rescue Conference (Case Number: ABC-987)
- Purchase Gloves (Case Number: 098765)
- Hiker Injured in Millcreek Canyon (Case Number: ABC-123)
- Harness purchase for SAR Volunteers (Case Number: 1234567)
- Assist EMS with an injured snowmobiler in the backcountry. (Case Number: 22-L04020)
- Jet purchase (Case Number: 001)
- Avalanche Training (Case Number: SARTR12922)
- Stuck truck and sided by sides. Cove Mountain (Case Number: SAR2202-096)
- Truck stuck on Cove Mountain (Case Number: SAR2202-109)
- Ice Recue, Fish Lake. Cancelled. (Case Number: SAR2202-146)

Arcade Code:

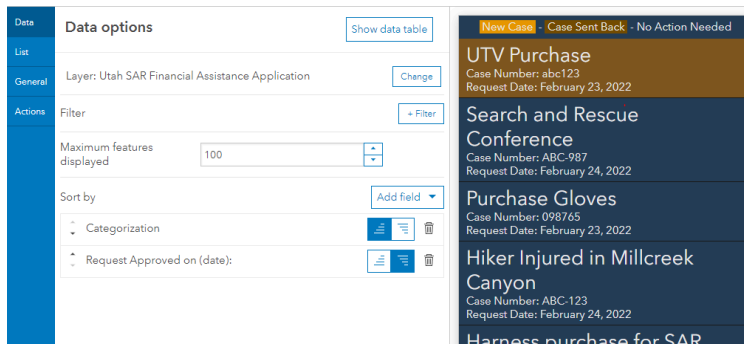
```

var category = $datapoint.category
var cat_color = When(category == '1. Waiting On Sheriff Signature', '#CB8A07',category=='2. Sent Back To Sheriff Signature','#7d5822','')

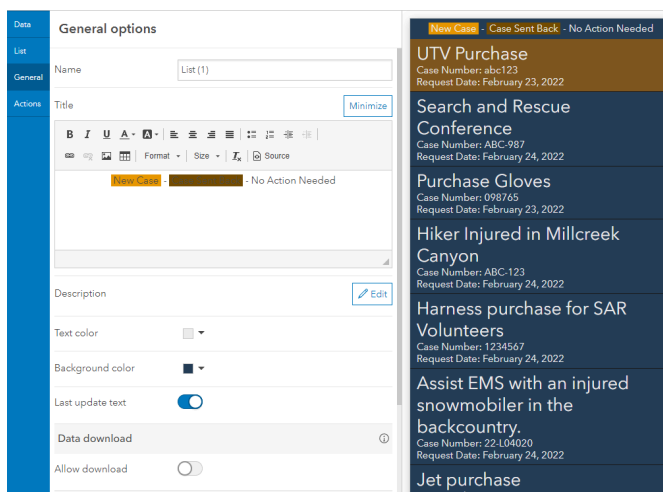
return {textColor: '',
        backgroundColor: cat_color,
        separatorColor: '#1a1a1a',
        selectionColor: '#8a8a8a',
        selectionTextColor: '',attributes: ''}

```

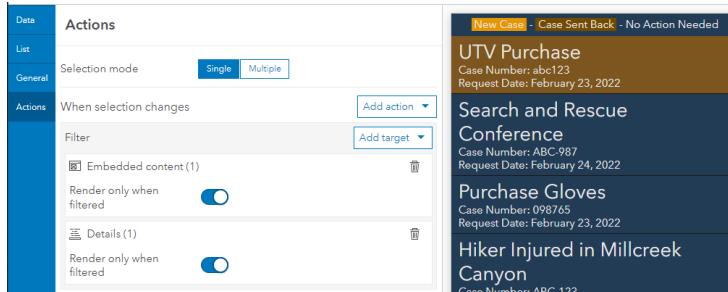
- As stated above, the list is sorted by the categorization. It is secondarily sorted by the date the sheriff approved it, so recently approved cases show higher on the list. There is no filter for the Sheriff's dashboard as they are allowed to see any application submitted within their county, regardless of the stage in the process. The screenshot below shows the Data tab configuration of the list.



- The only thing of note in the General tab configuration is a color coded legend for the title, which indicates the general category as specified in the Arcade script.



- The Actions tab of the list configuration is where the interactivity comes in. Basically the other parts of the dashboard – and most importantly the survey – are filtered to only show information pertaining to the selected record in the list. Selecting only render when filtered means that there won't be a default record that populates the survey when the dashboard is initially opened. The details widget referred to here will be explained below, but is filtered in the same way that the survey is.



The **details widget** is essentially the same information that appears in the pop-up on the map, so can be configured in the Web Map itself instead of in the dashboard. This is filtered by the list, same as the survey, where the selected list item populates the details pane with associated information.

Commander Dashboard Survey123 embed URL parameters:

d_number={recovered_number}&reason_mission_terminated={reason_mission_terminated}&found_area={found_area}&clues_found={clues_found}&equipment_results={equipment_results}&equip_results={equip_results}&equip_name={equip_name}&equip_note={equip_note}&equip_num={equip_num}&equip_time={equip_time}&equip_people={equip_people}&equipment_checkpoint={equipment_checkpoint}&mission_closed={mission_closed}&location={location}&land_ownership={land_ownership}&latitude={latitude}&longitude={longitude}&calc_location={calc_location}&incident_location={incident_location}&personnel_hours={personnel_hours}&paid_personnel={paid_personnel}&volunteer_sar={volunteer_sar}&volunteer_non_sar={volunteer_non_sar}&total_hours={total_hours}&attachments_group={attachments_group}&training_roster={training_roster}&training_agenda={training_agenda}&attachments={attachments}&attachments_deadline={attachments_deadline}&attachments_added={attachments_added}&attachments_note={attachments_note}&commander_approval={commander_approval}&admin_group={admin_group}&admin_code={admin_code}&admin_approval={admin_approval}&hold_reason={hold_reason}&board_group={board_group}&total_expenses={total_expenses}&total_if_approved={total_if_approved}&approved_different={approved_different}&approved={approved}&denied={denied}&category={category}&hide=header,footer

Web-Based Dashboard for State Administrator

Dashboard/Survey123 embed URL parameters:

https://survey123.arcgis.com/share/2092a726f297469b8c4e8851e65065d7?mode=edit&globalId={globalid}&county={county}&case_number={case_number}&t_choice_descriptor={t_choice_descriptor}&search_date={search_date}&description={description}&search_expenses={search_expenses}&search_food={search_food}&search_fuel={search_fuel}&search_lodging={search_lodging}&search_rental_equip={search_rental_equip}&search_replace_equip={search_replace_equip}&search_other={search_other}&search_other_amount={search_other_amount}&search_total={search_total}&training_expenses={training_expenses}&training_food={training_food}&training_fuel={training_fuel}&training_course_fee={training_course_fee}&training_supplies={training_supplies}&training_lodging={training_lodging}&training_other={training_other}&training_other_amount={training_other_amount}&training_total={training_total}&equipment_expenses={equipment_expenses}&equip_explain={equip_explain}&upgrade_equip={upgrade_equip}&new_equip={new_equip}&equipment_other={equipment_other}&equipment_other_amount={equipment_other_amount}&equipment_total={equipment_total}&request_info={request_info}&requester_name={requester_name}&requester_pos={requester_pos}&request_date={request_date}&approver_name={approver_name}&approved_date={approved_date}&check_address={check_address}&POC_name={POC_name}&POC_email={POC_email}&POC_phone={POC_phone}&POC_adtl_contact={POC_adtl_contact}&POC_correct={POC_correct}&POC_notes={POC_notes}&incident_description={incident_description}&admin_group={admin_group}&admin_code={admin_code}&admin_approval={admin_approval}&hold_reason={hold_reason}&board_group={board_group}&total_expenses={total_expenses}&t

total_if_approved={total_if_approved}&approved_different={approved_different}&hide=header,footer,field:type_choice,field:submission_deadline,field:submission_notice,field:subject_information,field:reporting_person,field:victims,field:victim_name,field:subject_table,field:in_county,field:in_state,field:victim_checkpoint,field:activity,field:activity_other,field:situation,field:last_known_position,field:descriptions,field:response,field:response_type,field:rescue_techniques,field:search_techniques,field:results,field:rescue_datetime,field:results_type,field:result_sums,field:found_number,field:rescued_number,field:recovered_number,field:reason_mission_terminated,field:found_area,field:clues_found,field:equipment_results,field:equip_results,field:equip_time,field:equip_people,field:equipment_checkpoint,field:mission_closed,field:location,field:land_ownership,field:incident_location,field:usara,field:personnel_hours,field:paid_personnel,field:volunteer_sar,field:volunteer_non_sar,field:total_hours,field:approved,field:denied

Web-Based Dashboard for State Board Members

Dashboard/Survey123 embed URL parameters:

[received_by,field:victims,field:victim_name,field:in_county,field:in_state,field:activity,field:situation,field:last_known_position&descriptions={descriptions}&hide=field:type_choice,field:request_info,field:attachments_group,field:admin_group,field:submission_notice](#)

https://survey123.arcgis.com/share/464fe560d09b487f95a801cde595ecb9?mode=edit&globalId={globalid}&for_review=Yes&county={county}&case_number={case_number}&approved={approved}&denied={denied}&t_choice_descriptor={t_choice_descriptor}&search_date={search_date}&t_choice_descriptor2={t_choice_descriptor2}&description={description}&search_total={search_total}&training_total={training_total}&equipment_total={equipment_total}&request_date={request_date}&check_address={check_address}&reporting_person={reporting_person}&descriptors={descriptors}&incident_description={incident_description}&approved={approved}&denied={denied}&search_expenses={search_expenses}&search_food={search_food}&search_fuel={search_fuel}&search_rental equip={search_rental equip}&search_replace equip={search_replace equip}&search_other={search_other}&search_other_amount={search_other_amount}&training_expenses={training_expenses}&course_name={course_name}&training_food={training_food}&training_fuel={training_fuel}&training_course_fee={training_course_fee}&training_supplies={training_supplies}&training_other={training_other}&training_other_amount={training_other_amount}&equipment_expenses={equipment_expenses}&equip_explain={equip_explain}&upgrade_equip={upgrade_equip}&admin_approval={admin_approval}&new_equip={new_equip}&equipment_otherfield={equipment_otherfield}&for_review=yes&hide=field:response_type,field:request_info,field:submission_notice,field:admin_group,field:admin_approval,field:rescue_techniques,field:search_techniques,field:results,field:rescue_date,field:results_type,field:result_sums,field:found_number,field:rescued_number,field:recovered_number,field:reason_mission_terminated,field:found_area,field:clues_found,field:response,field:reporting_person,field:mission_closed,field:location,field:land_ownership,field:latitude,field:longitude,field:calc_location,header,footer,field:incident_location,field:usara,field:personnel_hours,field:paid_personnel,field:volunteer_sar,field:volunteer_non_sar,field:total_hours,field:attachments_group,field:attachments,field:requester_name,field:requester_pos,field:request_received_date,field:request_received_by,field:activity,field:situation,field:last_known_position&descriptions={descriptions}&hide=field:type_choice,field:request_info,field:attachments_group,field:admin_group,field:submission_notice

[Downloadable Web Map of Hotspots](#)

[Web-Based Dashboard for the Public](#)

[Annual Audit Report](#)