

# NSGIC 3DEP STATE PLANNING – MAPS AND APPS IMPLEMENTATION GUIDE

VERSION 2.0, APRIL 2020

## OVERVIEW

Use this guide as part of your State's 3DEP Planning Process to help develop ArcGIS Online Map and Apps that document and track progress on the implementation of your plan.

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## Introduction

Use this guide to help develop ArcGIS Online Map and Apps to document and track progress on the implementation of your State's 3DEP Plan, and share this information with local, state and federal partners through interactive Esri web maps/apps and REST Services. The goals and objectives for these templates are to help....

- Inform about the 3DEP program and your state's Lidar plan
- Map statewide Lidar needs identified in the state's NEEA & new 3D Nation Study
- Map existing statewide lidar data
- Map stakeholder project needs, areas and priorities (multi-year acquisition)
- Map funding sources & project partnerships
- Map gaps in the state Lidar plan to be filled
- Inform about your state Lidar data and training resources and future plans

To accomplish this, this guide is divided into the following sections.

## Creating your State ArcGIS Online Maps & Apps Templates (Sections)

1. About 'your team's name' and This Plan
2. About the USGS 3D Elevation Program (3DEP)
3. About the USGS NEEA Inventory (+your state's old fact sheet)
4. About the 3D Nation Requirements and Benefits Study (+your state's new fact sheet)
5. About the USGS 3DEP BAA Process
6. About NSGIC's 3DEP for the Nation: State Plans + status of your state plan
7. 'your state's name' 3DEP Plan - Existing Elevation Data
8. 'your state's name' 3DEP Plan - New Lidar Areas of Interest
  - a. AOI Survey
  - b. Draw your AOI
  - c. Contact Us
9. 'your state's name' 3DEP Plan – Multi-year Acquisition Plan
  - a. 'your state's name' Year 1, 2, 3,... Acquisition Plans
  - b. 'your state's name' 3DEP Plan – GAP Map
10. 'your state's name' 3DEP Plan – Acquisition Status
  - a. 'your state's name' 3DEP Plan – Contracted Projects
  - b. 'your state's name' 3DEP Plan – Collected Data
  - c. 'your state's name' 3DEP Plan – Delivered Data
11. 'your state's name' 3DEP Plan - Data Distribution
12. 'your state's name' 3DEP Plan - Training Resources
13. 'your state's name' 3DEP Plan - Next Steps

## Design and Develop your State's Map Journal Template App

The following Apps\* use Esri's Map Journal Story Map template to combine the sections identified in the matrix below to address the specific topic. (\*Note: The State of Indiana's 3DEP Planning Maps and Apps are used as the Templates for this document.)

**Template 1:** State Plan (Unabridged) – <https://arcg.is/1GOj1z>

**Template 2:** About 3DEP (Brief) - <https://arcg.is/1GGCWy>

**Template 3:** State Plan (Brief) - <https://arcg.is/1Ty1Dn>

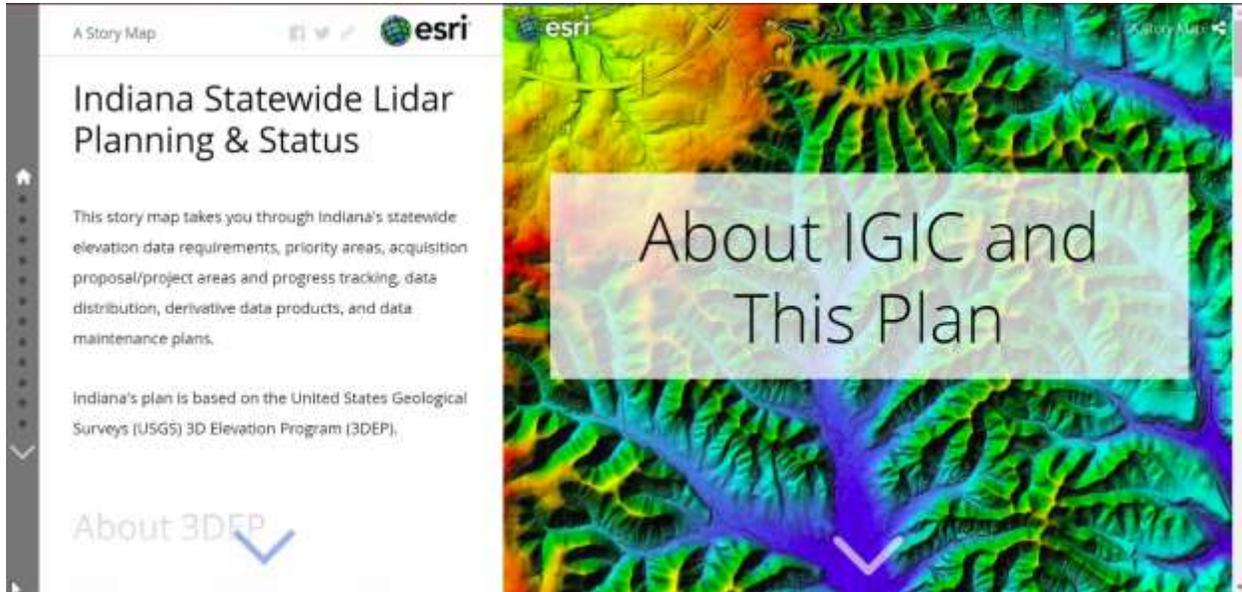
**Template 4:** State Lidar Resources (Brief) - <https://arcg.is/1i9f9u>

**Template 5:** Submit New Lidar Areas of Interest (AOI) to the State Plan - <https://arcg.is/Si9KK>

**Template 6:** State Plan Lidar Acquisition Status - <https://arcg.is/08rzKS>

**TABLE 1 – Proposed ArcGIS Map Journal Apps**

The figure below shows the home page of the Indiana Statewide Lidar Planning Application example using Esri’s Map Journal Template.



**Figure 1 - Indiana Template Example - <https://arcg.is/1GOj1z>**

The table below identifies the sections recommended for inclusion in Story Map 1 - 6.

Maps & Apps Sections Consists of:	Story Section			Story Map Templates*					
	Narrative	Map	App	1	2	3	4	5	6
1. About 'your team's name' and This Plan	Y		Cascade	Y	Y	Y	Y	Y	Y
2. About the USGS 3D Elevation Program (3DEP)	Y		Cascade	Y	Y				
3. About the USGS NEEA Inventory (+your state's old fact sheet)	Y		Cascade	Y	Y				
4. About the 3D Nation Requirements and Benefits Study (+your state's new fact sheet)	Y		Cascade	Y	Y				
5. About the USGS 3DEP BAA Process	Y		Cascade	Y	Y				
6. About NSGIC's 3DEP for the Nation: State Plans + status of your state plan	Y		Cascade	Y		Y			
7. 'your state's name' 3DEP Plan - Existing Elevation Data	Y	Y	Cascade	Y		Y			
8. 'your state's name' 3DEP Plan - New Lidar Areas of Interest	Y	Y	Map Series	Y		Y		Y	
8.a AOI Survey	Y		Survey123	Y		Y		Y	
8.b Draw your AOI	Y	Y	App Builder	Y		Y		Y	
8.c Contact Us	Y		Web Page	Y		Y		Y	
9. 'your state's name' 3DEP Plan – Multi-year Acquisition Plan	Y	Y	Cascade	Y		Y			
9.a 'your state's name' Year 1, 2, 3,... Acquisition Plans	Y	Y		Y		Y			
9.b 'your state's name' 3DEP Plan – GAP Map	Y	Y		Y		Y			
10. 'your state's name' 3DEP Plan – Acquisition Status	Y	Y	Cascade	Y		Y			Y
10.a 'your state's name' 3DEP Plan – Contracted Projects	Y	Y	Cascade	Y		Y			Y
10.b 'your state's name' 3DEP Plan – Collected Data	Y	Y	Cascade	Y		Y			Y
10.c 'your state's name' 3DEP Plan – Delivered Data	Y	Y	Cascade	Y		Y			Y
11. 'your state's name' 3DEP Plan - Data Distribution	Y		Cascade	Y			Y		Y
12. 'your state's name' 3DEP Plan - Training Resources	Y		Cascade	Y			Y		Y
13. 'your state's name' 3DEP Plan - Next Steps	Y	Y	Cascade	Y		Y		Y	Y
<b>LEGEND:</b>	<b>*State 3DEP Planning Esri Story Map Templates:</b>								
State 3DEP Acquisition Planning (Custom)	Template 1. State Plan (Unabridged)								
General 3DEP Program Information (Generic)	Template 2. About 3DEP (Brief)								
State 3DEP Support Resources & Post-Acquisition Plan (Custom)	Template 3. State Plan (Brief)								
	Template 4. State Lidar Resources (Brief)								
	Template 5. Submit New Lidar Areas of Interest (AOI) to the State Plan								
	Template 6. State Plan Lidar Acquisition Status								

**TABLE 2 – Recommended ArcGIS Online Map and Apps Templates**

We recommend you start by developing a first draft of your “State Plan (Unabridged)” Esri Map Journal Story Map. Start by adding placeholders to this Map Journal for each of the sections you plan to develop to support your State’s 3DEP plan (this becomes your living table of contents). You do not need to add all 13 sections outlined above, but you may want to, or add others – it’s totally up to you. These placeholder sections can start off as simple graphics (title slides) identifying the content for each section you plan to develop. When you’ve completed this first draft of your Map Journal, share it with your team and stakeholders, so they can easily review and contribute throughout your Map/App design and development process. This way over time you add / update a section you do not need to send out a new copy of new link to your team.

As you develop the components (Apps / Maps / Graphics / Text) for each of the individual sections included in your draft Map Journal, simply edit this App and replace each placeholder title slide with your new live content.

When your Unabridged State Plan App is complete make three copies\* of this App and edit these to create the Apps 2 – 6 listed in Table 1 above.

*\*See Appendix D for instructions on how to duplicate an existing Map Journal App.*

**Note:** In addition to using your custom Map Journals to access your custom sections (Apps), each of the individual Maps & Apps listed in items 1-13 above can also be shared and accessed as standalone Maps & Apps as needed.

**Other Examples:** As states complete their 3DEP Plans and their supporting AGOL Maps and Apps, NSGIC will publish these materials for reference on the NSGIC web site here - <https://www.nsgic.org/3dep-for-the-nation>.

### Section 1: About ‘your team’s name’ and This Plan

**App Description:** This App is used to provide an overview to the your statewide 3DEP planning organization and the components of your plan.

**App Template:** Esri Cascade App - <https://arcg.is/0LC95e>



**Figure 1.1**

**App Components:** Include graphics, narrative, and hyperlinks to introduce your State’s 3DEP planning process and the main reason and components of your state plan. Including an introduction to your planning team (e.g. Taskforce, State Council, etc…) and its members.

## Section 2: About the USGS 3D Elevation Program (3DEP)

**App Description:** Elevation data are essential for flood mitigation, conservation management, infrastructure development, national security, and many other applications. 3DEP supports the systematic collection of Quality Level 2 or better light detection and ranging (lidar) data over the conterminous United States, Hawaii and U.S. territories.

This App introduces the basics of lidar technology and how the USGS is leveraging this technology to create a nationwide 3D Elevation Program (3DEP).

**App Template:** Esri Cascade App - <https://arcg.is/1Xjf40>

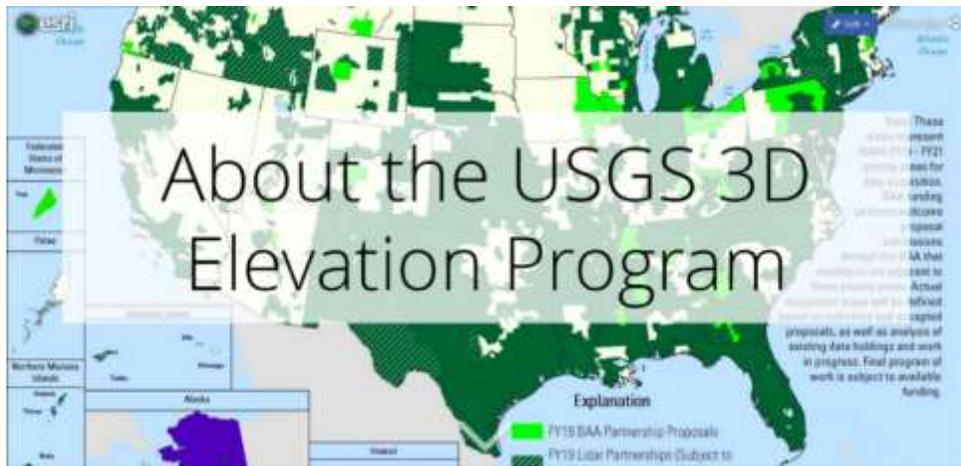


Figure 2.0

**App Components:** The main lidar reference resource in this section is the USGS 3DEP program web site shown in Figure 2.1 below. Additional customization of the section can include specific use case examples and applications of lidar data within your State (See Figures 2.2 and 2.3 below).



Figure 2.1 <https://www.usgs.gov/core-science-systems/ngp/3dep>



**Figure 2.2 State of Washington -**

<https://wadnr.maps.arcgis.com/apps/Cascade/index.html?appid=36b4887370d141fcbb35392f996c82d9>



**Figure 2.3 State of California -** <https://arcg.is/Gnz80>

Section 3: About the USGS NEEA Inventory (+ your state’s fact sheet)

**App Description:** The 3DEP initiative is based on the results of the USGS National Enhanced Elevation Assessment (NEEA). NEEA was conducted to (1) document national level requirements for enhanced elevation data, (2) estimate the benefits and costs of meeting those requirements, and (3) evaluate multiple national enhanced elevation program scenarios.

**App Template:** Esri Cascade App - <https://arcg.is/04GfH9>



**Figure 3.0**

**App Components:** Little customization of the section is needed. For more information on the NEEA study details provide a link to the national resources – [HERE](#). Also, be sure to add a link to the NEEA fact sheet developed for your state.



**Figure 3.1**

#### Section 4: About the 3D Nation Requirements and Benefits Study (+ your state’s fact sheet)

**App Description:** The National Oceanic and Atmospheric Administration (NOAA) Office of Coast Survey (OCS) and the U.S. Geological Survey (USGS) are working to improve the technology, systems, data, and services that provide information about 3D elevation data and related applications within the United States. By learning more about business uses and associated benefits that would be realized from improved 3D elevation data, the agencies will be able to prioritize and direct investments that will best serve user needs. A comprehensive study of requirements and benefits for improved elevation data that covers the geographic scope as defined by the 3D Nation vision will help Federal mapping agencies to develop and refine future program alternatives for enhanced 3D elevation data to meet many Federal, State, and other national business needs.

**App Template:** Esri Cascade App - <https://arcg.is/0y5inD>



**Figure 4.0**

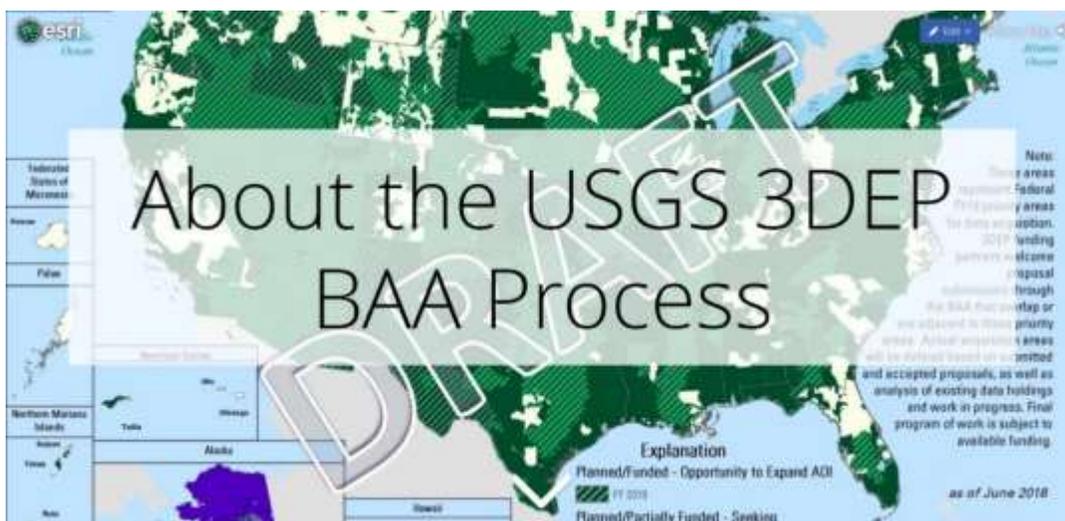
**App Components:** Little customization of the section is needed. For more information on this study provide a link to the national resource page – <https://my.usgs.gov/confluence/display/3DNationStudy/3D+Nation+Requirements+and+Benefits+Study>

Additionally, once this new study is complete in late 2020 be sure to add a link to the NEW fact sheet developed for your state.

#### Section 5: About the USGS 3DEP BAA Process

**App Description:** Starting in 2014 the USGS issued a Broad Agency Announcement (BAA) to provide project opportunities to partner with the USGS and other Federal agencies to acquire high-quality 3D data. 3DEP acquisition projects may be implemented either through USGS GPSC agreements or by state/local partners through cooperative agreement with USGS.

**App Template:** Esri Cascade App - <https://arcg.is/1mr55f>



**Figure 5.0**

**App Components:** Other than annually adding a new 3DEP program status map, little customization of the section is needed. For more information on the USGS BAA process provide a link to the USGS site - <https://www.usgs.gov/core-science-systems/ngp/3dep/broad-agency-announcements>

Section 6: About NSGIC's 3DEP for the Nation: State Plans + status of your state plan

**App Description:** Under this initiative, NSGIC is developing 3DEP elevation plan templates to be used by each state and territory and their stakeholders to develop statewide plans to document the collaborative roles, responsibilities, and timeframes for completing 3DEP coverage for their entire state or territory through the annual USGS 3DEP BAA Program.

**App Template:** Esri Cascade App - <https://arcg.is/qvP95>



Figure 6.0

**App Components:** Little to no customization of the section is needed. Current resources available for the state planning process are available on the NSGIC web site here - <https://www.nsgic.org/3dep-for-the-nation>. Additionally, the current status and results of State's 3DEP planning efforts are reported through an interactive NSGIC 3DEP Operational Dashboard shown in Figure 6.1 below, and available here – <https://arcg.is/1mLzKC>. Instructions on how to use all the features of this dashboard can be found [HERE](#).



Figure 6.1

## Section 7: State's 3DEP Plan - Existing Elevation Data

**App Description:** Inventory and documents your existing elevation data, along with recommends update cycles, data sharing and distribution mechanisms to stakeholders and to the public.

**App Template:** Esri Cascade App - <https://arcg.is/0Or9Ov>



**Figure 7.1**

**App Components:** This section requires significant customization for your state. We recommend you address the following six components:

1. **Overview:** In general terms describe the types of elevation framework data currently available for your state in general terms.
2. **Current Holdings:** Describe each specific type of elevation framework data currently available.
3. **Data Stewards:** This section identifies each of the appropriate data stewards for the current holdings. Data stewards manage, develop, and maintain the GIS data layers to support the business uses of these data within their organization and throughout their communities.
4. **Data Standards:** This section describes the data standards for the current holdings. GIS data standards define the digital format, graphic feature types, feature attributes, and default map symbology used to represent each layer.
5. **Data Sharing:** This section describes data sharing policies, and data exchange agreements for the current holdings.
6. **Data Distribution:** This section describes data viewing, download, web services or other transfer mechanisms available for the current holdings.

## Section 8: State's 3DEP Plan - New Lidar Areas of Interest

**App Description:** The State is asking for input from lidar end-users, stakeholders and the public to help define Areas of Interest (AOI) for the collection on new Topographic or Bathymetric Lidar data.

**App Template:** Esri Map Series - <https://arcg.is/nC9vb>

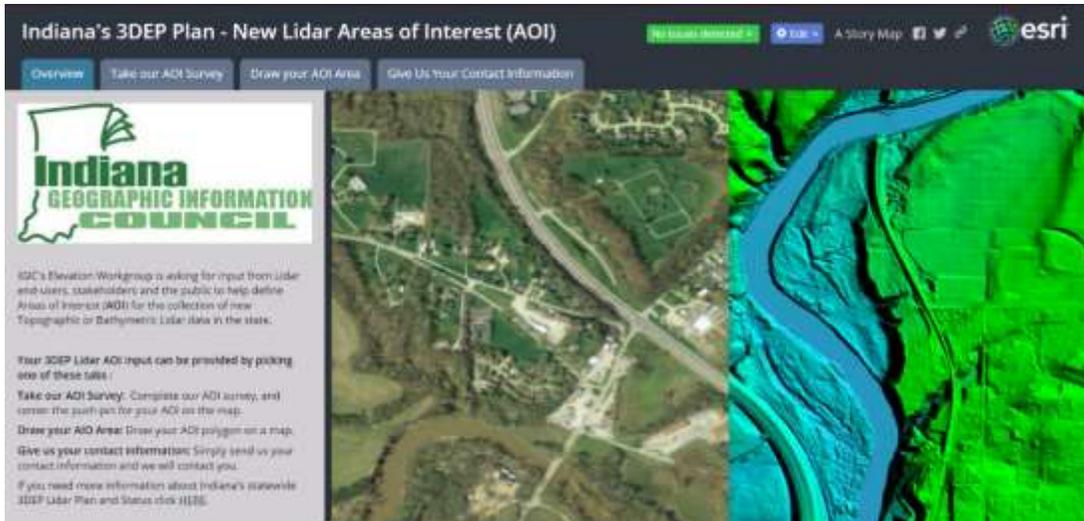


Figure 8.0

**App Components:** This section requires significant customization for your state. We recommend you address the following three components in this App:

**8.1 Take our AOI Survey:** Complete our AOI survey, and center the push-pin on the map

**8.2 Draw your AIO Area:** Draw your AOI polygon on a map

**8.3 Send us your contact information:** Simply send us your contact information and we will contact you

8.1 Take our AOI Survey:

**Indiana Survey123 Example:** <https://arcg.is/18vT49>

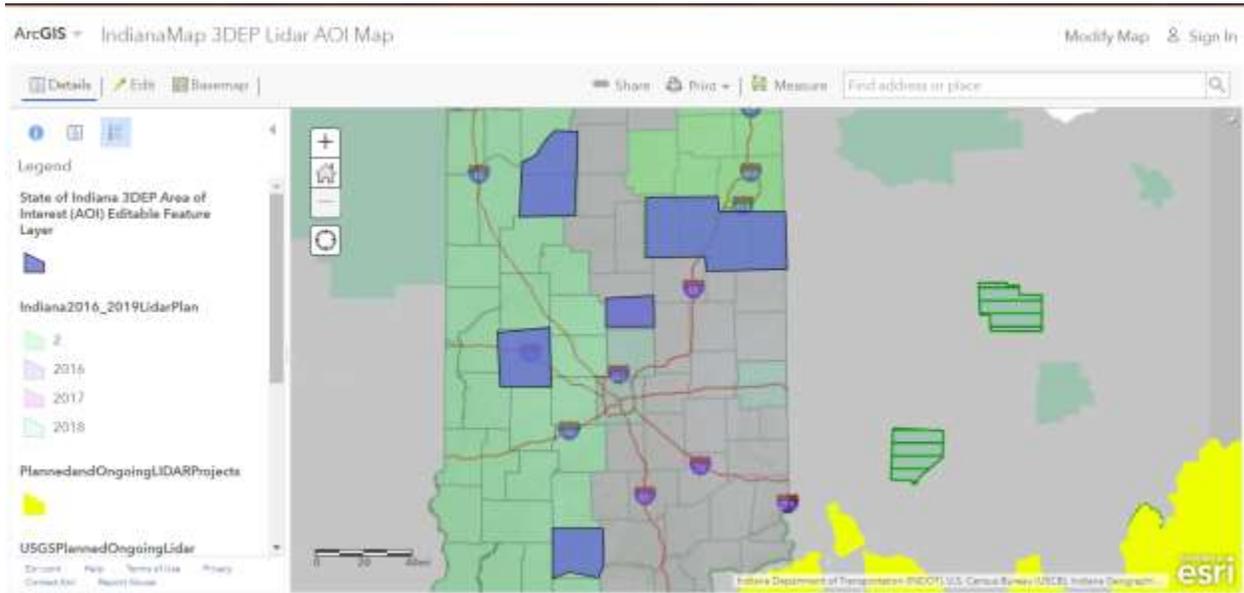


Figure 8.1

See Appendix F for the template for the Survey123 questions for the 3DEP Lidar Areas of Interest Survey Tool for State Plan

## 8.2 Draw your AIO Area

**Indiana Map Example:** <https://arcg.is/1H8Cf1>



**Figure 8.2.1**

**Indiana App Example:**

<https://indianamap.maps.arcgis.com/apps/webappviewer/index.html?id=5c272ca064464777b94948369d690677>

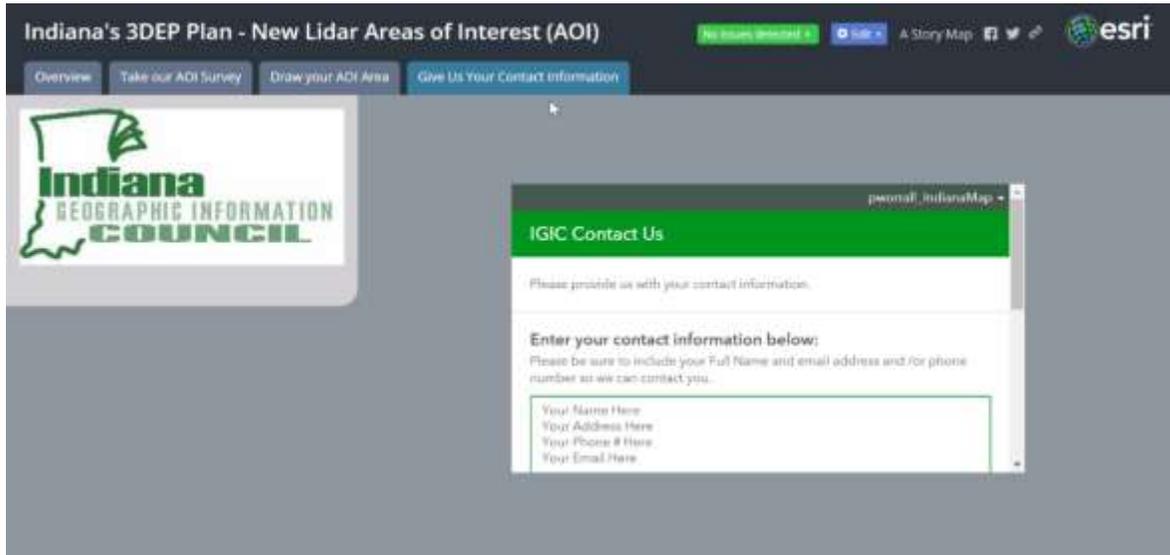


**Figure 8.2.2**

See Appendix G for the steps to use Esri's ArcGIS Online and Web AppBuilder to create these configurable 3DEP AOI Maps & Apps.

### 8.3 Give us your contact information

**Indiana Survey123 Example:** <https://arcg.is/ODWyOn>



**Figure 8.3**

See Appendix H for the template for the Survey123 contact information collection tool.

### Section 9: State's 3DEP Plan - Multi-year Acquisition Plan

**App Description:** This section requires significant customization by your State to provide a narrative, graphics and interactive maps of your State's Multi-year 3DEP acquisition plan.

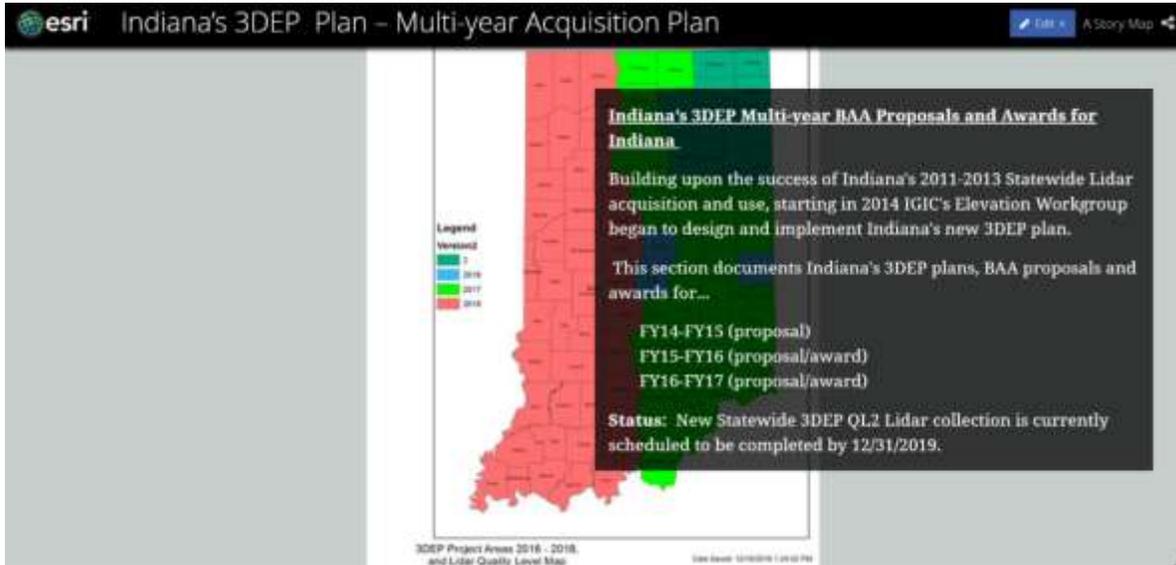
**App Template:** Esri Cascade App - <https://arcg.is/m8W5K>



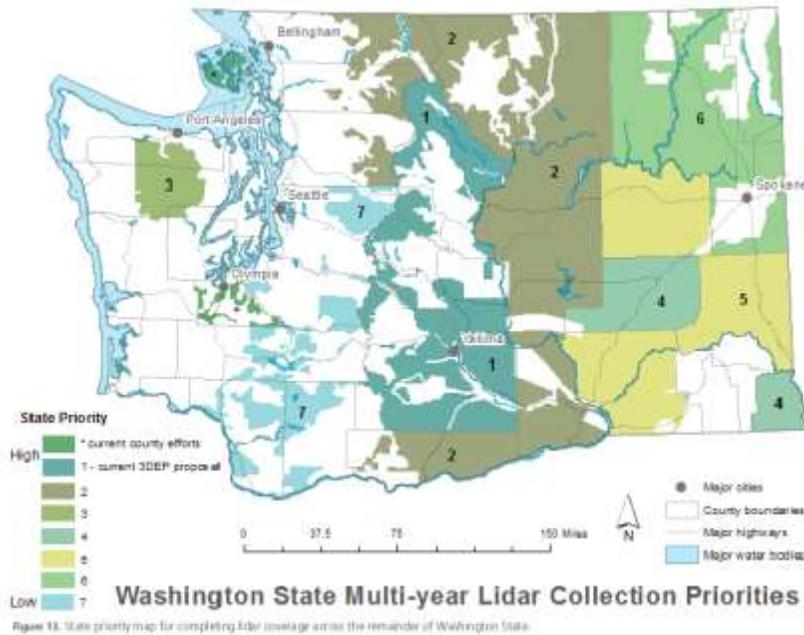
**Figure 9.0**

**App Components:** We recommend the components of this section to include:

1. Previous year, current year and future year plan[s] for your State’s 3DEP BAA submittals.
2. Statewide Gap Map (areas where no partners and/or funding sources have yet been identified).
3. Hyperlinks for potential Federal, State, and Local partners to use to download your Area-of-Interest (AOI) and Gap Map shapefile[s], and access REST service URL’s for these layers.



**Figure 9.1 – State’s Multi-Year BAA Proposals**



**Figure 9.2.1 Statewide Gap Map Example (State of Washington)**

*(Showing areas where no partners and/or funding sources have yet been identified).*

Table 1. Priority areas and a description of how the areas were ranked.

PRIORITY AREA	PRIORITY DETERMINATION AND DESCRIPTION
0 San Juan and Thurston County	Both counties are pursuing lidar collection at this time
1 Eastern Cascades	Continuation of collection that has started in 2017–2018 by the USFS and WGS to address wildfire and forest health concerns, agricultural needs, hazard mapping, and to maintain mapping consistency
2 Okanogan and Western Columbia Basin	Addresses forest health, wildlife habitat, hazard mapping concerns, agriculture, and civil planning projects
3 Olympic National Park	Many stakeholder groups in Washington require high-quality lidar data for Olympic National Park for water quality concerns, salmon restoration, and hazards mapping
4 Adams and Asotin Counties	Currently, Adams and Asotin Counties have little or no lidar coverage. Lidar data in these counties will help address water quality, hazards mapping, and civil planning projects
5 Whitman, Eastern Columbia Basin	Given the current outlook for FEMA, lidar coverage may soon be collected in these areas, though much of it may be lower quality. This priority is set to ensure the lidar data is refreshed at a higher quality to be consistent across the region
6 Northeast Washington	Lower quality data exists for much of this region and has been used for understanding forest health. However, there are concerns about using this data for hazard mapping. Updated data will be needed to complete hazard mapping and maintain data consistency in the region
7 Remaining Western Cascades	Areas in the western Cascades are generally of lower data quality, making it of limited use. New data collection is necessary for hazard mapping.

**Figure 9.2.2 – Statewide Gap Map Example (State of Washington)  
(Gap Priority Area Rankings)**

**Indiana's 3DEP Plan – Multi-year Acquisition Plan**

**5. FY17-FY19 Final Award/Contract**

**Final Project Funding & Contract Partners (Actual)**

- USDA/NRCS Indiana Office (\$6.625m)
- USGS 3DEP Program (~\$600k)
- State & County Government Contribution (\$0)
- USGS/NRCS Cooperative Agreement
- USGS GPSC 3DEP contract with Woolpert

**2018 - 2018 IndianaMap Statewide Lidar Plan**

**Legend**

Lidar  
 None  
 Low  
 Medium  
 High

Lidar Quality  
 None  
 Low  
 Medium  
 High

As a result, the Indiana office of the USDA – Natural Resource Conservation Service (NRCS) was able to expand their Area of Interest (AOI) statewide, and signed an agreement with the USGS to fund the collection of new Lidar data products for the State of Indiana starting in 2017 with scheduled completion in 2019.

**Download Indiana's AOI Shapefile:** [Link to Shapefile](#)

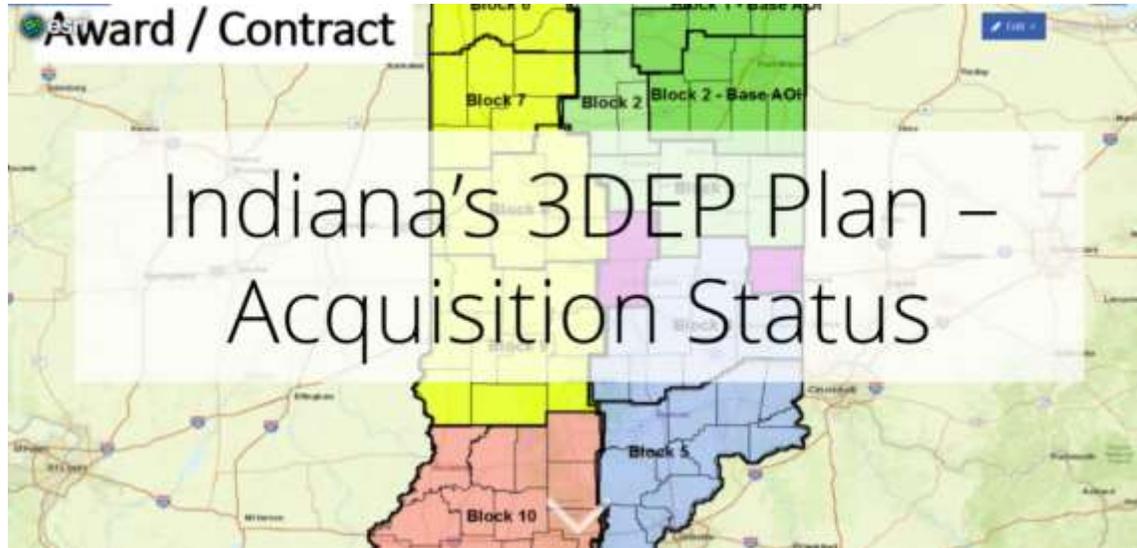
**Access Indiana's AOI REST Service:** [Link to REST Service](#)

**Figure 9.3 – Shapefile & REST Service URLs**

## Section 10: State's 3DEP Plan - Acquisition Status

**App Description:** This section describes the current status of the new 3DEP data acquisition across the state.

**App Template:** Esri Cascade App - <https://arcg.is/1G8reu>



**Figure 10.0**

**App Components:** Recommended components include details about...

1. 3DEP acquisition projects (under contract and proposed)
2. 3DEP Project Collection Status
3. 3. 3DEP Projects Summary of Delivered Data



**Figure 10.1 - 3DEP Acquisition Projects (under contract and proposed)**



Figure 10.2 - 3DEP Project Collection Status

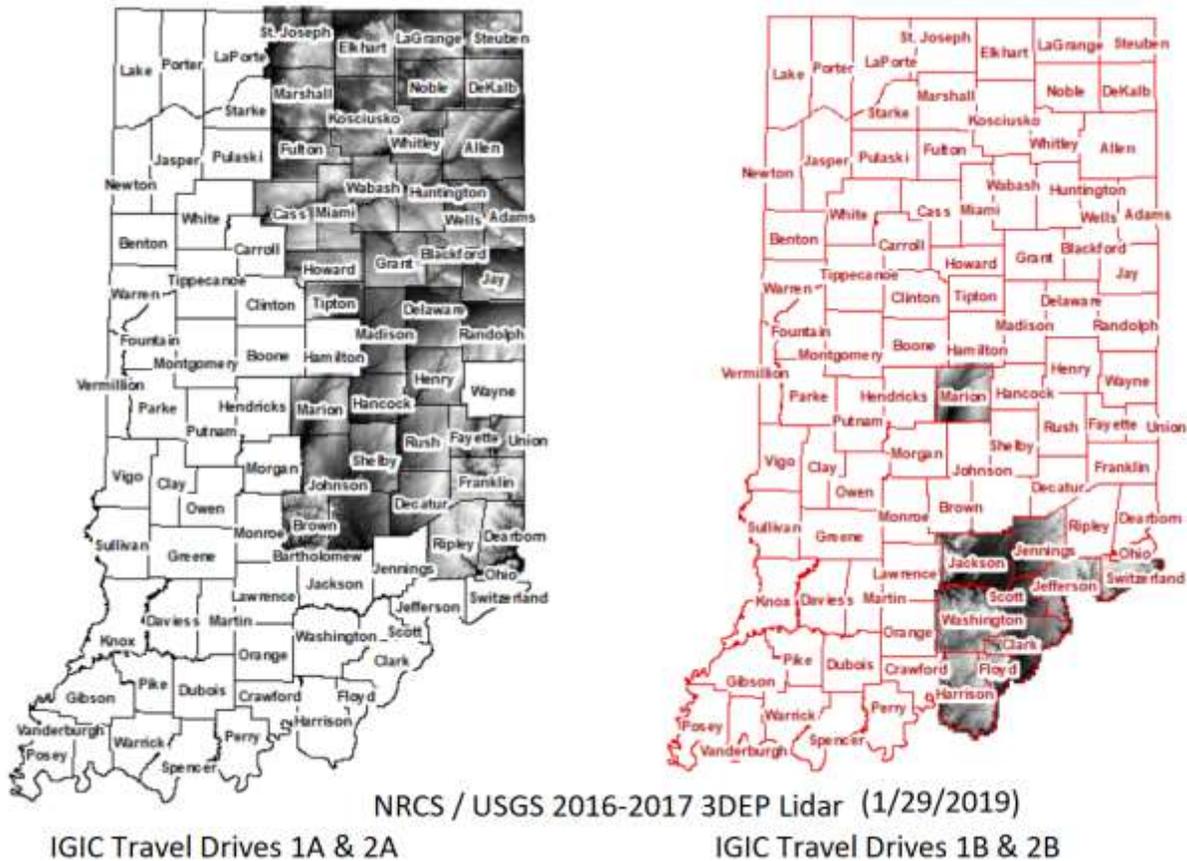


Figure 10.3 - 3DEP Projects Summary of Delivered Data

Section 11: State's 3DEP Plan - Data Distribution

**App Description:** Describe both the Federal and State data distribution resources available.

**App Template:** Esri Cascade App – <https://arcg.is/rSev5>

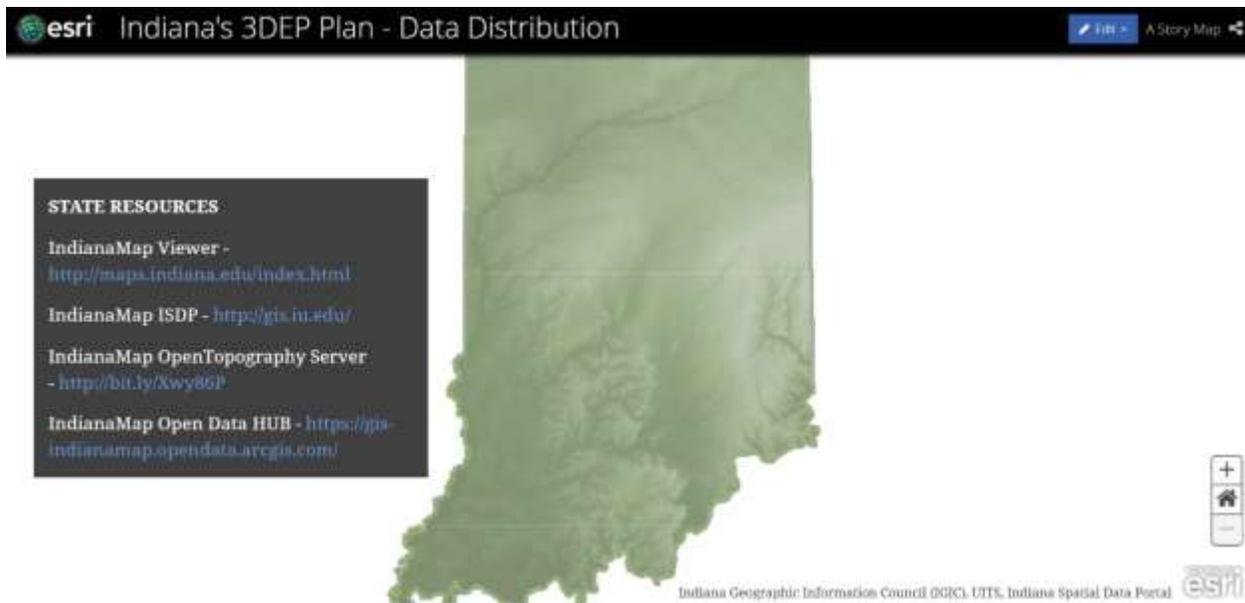


Figure 11.0

**App Components:** Description and links to the Federal and State lidar data distribution resources.



Figure 11.1 - Federal Resources



**Figure 11.2 - State Resources**

## Section 12: State's 3DEP Plan - Training Resources

**App Description:** Resources to learn how to access and use your State's 3DEP Lidar data are provided here.

**App Template:** Esri Cascade App - <https://arcg.is/1ePGyj>



**Figure 12.1**

**App Components:** Include Federal, State, NSGIC, and Commercial lidar training resources to teach people how to access and use your 3DEP lidar data products.

## Section 13: State's 3DEP Plan - Next Steps

**App Description:** As soon as your new 3DEP lidar data becomes available, your state team should begin making a plan for maintenance, updates, derivative products, and other uses of your data.

**App Template:** Esri Cascade App - <https://arcg.is/11r0Km>



**Figure 13.1**

**App Components:** Recommend the following topics be addressed under next steps:

1. Maintain Indiana LiDAR data on a refresh frequency of no more than 8 years.
2. Realize new benefits and reduced costs through emerging elevation data technology.
3. Develop new statewide derivative products from Indiana's new 3DEP Lidar data such as Tree Cover, Land-use, Hillshade, Slope map, Surface Water (NHD) updates, impervious surface mapping, building footprints, and more.
4. Investigate other types of elevation data and technology for your state such as (Terrestrial lidar, Bathymetric lidar, UAV Derived Elevation Data, and....
5. Is Something Missing? You should also continue to seek input from end-users of our statewide Lidar data. There will likely be uses and applications of your statewide lidar data that you never thought or dreamed of, but someone will discover it, so you should encourage sharing of ideas and applications.



**Figure 13.2 – Contribute Your Ideas**

## Appendix A. Seasketch Attribute Schema to Publish State AOIs for Seasketch (Schema based on Seasketch Public 3DEP Areas of Interest)

### A.1 State Proposed Area Attributes

PROJECTNAME ( type: esriFieldTypeString , alias: Project\_Name , length: 250 )

SOURCEDATATYPE ( type: esriFieldTypeString , alias: Data\_Type , length: 20 , Coded Values: [Lidar-Topo: Lidar-Topo] , [Lidar-Topobathy: Lidar-Topobathy] , [Lidar-Bathy: Lidar-Bathy] , ...4 more... )

COLLECTIONYEAR ( type: esriFieldTypeSmallInteger , alias: CollectionYear )

PROJECTSTATUS ( type: esriFieldTypeString , alias: ProjectStatus , length: 30 , Coded Values: [Complete: Complete] , [In Progress: In Progress] , [Planned/Funded: Planned/Funded] , ...2 more... )

RESTRICTIONS ( type: esriFieldTypeString , alias: Restrictions , length: 20 , Coded Values: [Public: Public] , [Purchase: Purchase] , [Government Only: Government Only] , ...2 more... )

STATE ( type: esriFieldTypeString , alias: State , length: 2 )

POINTOFCONTACT ( type: esriFieldTypeString , alias: Point\_Of\_Contact , length: 300 )

HORIZONTALACCURACY ( type: esriFieldTypeString , alias: Horizontal\_Accuracy , length: 300 )

VERTICALACCURACY ( type: esriFieldTypeString , alias: Vertical\_Accuracy , length: 300 )

NOTES ( type: esriFieldTypeString , alias: Notes , length: 500 )

POINTSPACING ( type: esriFieldTypeString , alias: Point\_Spacing , length: 50 )

COLLECTIONDATE ( type: esriFieldTypeString , alias: Collection\_Date , length: 200 )

POINTSPACINGNUMBER ( type: esriFieldTypeDouble , alias: Point\_Spacing\_Number )

VERTICALRMSE ( type: esriFieldTypeDouble , alias: VerticalRMSE )

QUALITYLEVEL ( type: esriFieldTypeSmallInteger , alias: QL , Coded Values: [1: 1] , [2: 2] , [3: 3] , ...5 more... )

INVID ( type: esriFieldTypeInteger , alias: InVID )

OWNER ( type: esriFieldTypeString , alias: Owner , length: 100 )

GLOBALID ( type: esriFieldTypeGlobalID , alias: GLOBALID , length: 38 )

### A.2 State Planning Area Attributes

STPRIORITYTYPE ( type: esriFieldTypeString , alias: State\_Priority\_Type , length: 10 , Coded Values: [Planned] , [GAP] )

STPRIORITYRANK ( type: esriFieldTypeSmallInteger , alias: State\_Priority\_Rank )

STPRIORITYNAME ( type: esriFieldTypeString , alias: State\_Priority\_Name , length: 100 )

## Appendix B. State Attribute Schema for developing and tracking the State AOI planning process.

### B.1. Survey123 Attributes

a. Enter Your Name (Character limit: 50)

b. Provide point of contact information: (Character limit: 300)

THIS INFORMATION WILL BE SHARED with our state Lidar planning team. Business contact information is preferable. Please include: email, phone number, website, and any other relevant information.

c. Please enter the name of the organization entering the project AOI: (Character limit: 200)

d. Enter the County name[s] containing the majority of the project area: (Character limit: 200)

e.\* Please enter a descriptive name for your project: (Character limit: 250)

Names that describe the location and purpose for the data are the most useful. (Examples: Black Creek Watershed Flood Study Lidar or 2016 San Diego Region Earthquake / Fire Modeling Lidar)

f.\* Enter the month and year when you propose to collect the data: (Date)

Choose Date in the format: mm/yyyy

For generic Spring acquisitions enter 02 for the month, for generic Fall/Winter enter 10 for the month.

g.\* Choose 3DEP Topographic Lidar Quality Needed. (Coded Values)

Please choose [QL2, QL1, QL0, other]

3DEP data must adhere to the current version of the USGS Lidar Base Specification. The specification defines 5 quality levels. The standard quality level for the 3DEP program is QL2. Will your project adhere to the QL2 specification or do you have a requirement to adhere to the specifications that will result in higher density QL1 or QL0 data?

You can use the “other details” question below if you have mixed quality levels or other special situations.

h. Provide any other important details about your project (optional): (Character Limit: 500)

Include special requirements like if bathymetric Lidar is required, or a specific topographic point density or special accuracy requirements, time of year it must be collected, tide coordination requirements, etc.

i.\* Define your Area of Interest (AOI):

Please zoom and pan the map to place a marker at the approximate location of your LiDAR Area of Interest:

j. File upload (optional): (Upload files)

If you have an existing MS Word or PDF document showing and/or describing the location of your Area of Interest you can upload it here.

## B.2. AOI Map Layer Attributes (*StateName\_3DEP\_AOI*)

a. NAME: Enter your name: (Character limit: 50)

b. POINTOFCONTACT: Provide point of contact information: (Character limit: 300)

\*THIS INFORMATION WILL BE SHARED with our state Lidar planning team. Business contact information is preferable. Please include: email, phone number, website, and any other relevant information.

c. OWNER: Please enter the name of the organization entering the project AOI: (Character limit: 100)

d. PROJECTNAME: Please enter a descriptive name for your project: (Character limit: 250)

Describe the main purpose for this data. (Examples: Black Creek Watershed Flood Study, Earthquake / Fire Modeling, etc...)

e. COLLECTIONDATE: Enter the month and year when you propose to collect the data: (Date)

Enter Date in the format: mm/yyyy

For generic Spring acquisitions enter 02 for the month, for generic Fall/Winter enter 10 for the month.

f. QUALITYLEVEL: Choose 3DEP Topographic Lidar Quality Needed. (Coded Values)

Please choose [QL2, QL1, QL0, other]

3DEP data must adhere to the current version of the USGS Lidar Base Specification. The specification defines 5 quality levels. The standard quality level for the 3DEP program is QL2. Will your project adhere to the QL2 specification or do you have a requirement to adhere to the specifications that will result in higher density QL1 or QL0 data?

Use the "NOTES" attribute to note if you have mixed quality levels or other special situations.

g. HORIZONTALACCURACY (Character Limit: 300)

Describe the absolute positional (X,Y) horizontal accuracy you need for your Lidar project.

h. VERTICALACCURACY (Character Limit: 300)

Describe the absolute vertical (Z) elevation accuracy you need for your Lidar project.

h. POINTSPERMETER (Integer: Range 1 to 500)

Indicate the number of Lidar Points Per Meter required for your Lidar project.

i. NOTES: Provide any other important details about your project (optional): (Character Limit: 500)

Include special requirements like if bathymetric Lidar is required, or a specific topographic point density or special accuracy requirements, time of year it must be collected, tide coordination requirements, etc.

## Appendix C. Create AGOL Feature Layers for State AOIs:

Create State's AGOL Editable Feature Layer for partners to draw 3DEP AOI Polygons (Using State Schema)

1. Log into AGOL State's Organization account and go to My Contents
2. Select Create – Feature Layer
3. Select Build a Layer – Polygons
4. Select Create
5. Edit Name to “State Name” 3DEP Areas of Interest (AOI)
6. Set Layer map extent to Your State
7. Select Create a Feature Layer
  - a. Title: State of Indiana 3DEP Area of Interest (AOI) Editable Feature Layer
  - b. Tags: Data Collection, 3DEP, AOI, etc...
  - c. Summary: Layer where initial new AOIs are drawn and submitted to State. All new Planning AOIs are consolidated\*\*\* on this layer for the State's 3DEP Team to review and study before being officially moved to the State's Official Proposed 3DEP Lidar layer.
  - d. DONE
8. Edit Feature Layer
  - a. Select Data Tab: Add Attributes (See Appendix B.2a-i for Attributes to add)
  - b. Select Settings Tab: Keep all defaults, plus select the following options.
    - i. Mark as Authoritative, this should auto set Delete Protection to Prevent this item from being accidentally deleted.
    - ii. Editing – Keep track of created and updated features
    - iii. What access do anonymous editors (not signed in) have? - Only add new features, if allowed above (requires tracking)
    - iv. Export Data - Allow others to export to different formats.
    - v. Select SAVE
9. Select Share, and select share layer with Everyone (public), and any internal groups you desired.
10. Select Open in Map Viewer
  - a. Confirm layer extents displays correctly [note: no polygons to display yet]
  - b. Select Open Table for the layer to confirm Attributes are correct [No Data Found]

## Appendix D. How to duplicate your Story Map Journal

We recommend you begin the development of the six recommended Esri Map Journal Story Maps (See Table 1) by creating the "App 1. Unabridged State Plan (Template 1)", and when this is completed make five copies of this App and edit to create the remaining Apps 2 - 6.

This workflow below was adapted from the following Esri Blog Post:

<https://community.esri.com/thread/118511>

**Step 1:** Open [ArcGIS Online Assistant](#) and sign-in

**Step 2:** Click "I want to..." and then "Copy content"

**Step 3:** In the popup, select content from the same account

**Step 4:** Find the App on the left side and drag and drop it to the open top box on the right side



**Step 5:** Go to ArcGIS Online > My content and open the new item (tips: using the modified column date sorting to find the new item easily)

	Title	Type	Modified	Shared
	Test duplication greg	Web Mapping Application	Dec 12, 2014	Not Shared
	Test duplication greg	Web Mapping Application	Dec 12, 2014	Not Shared

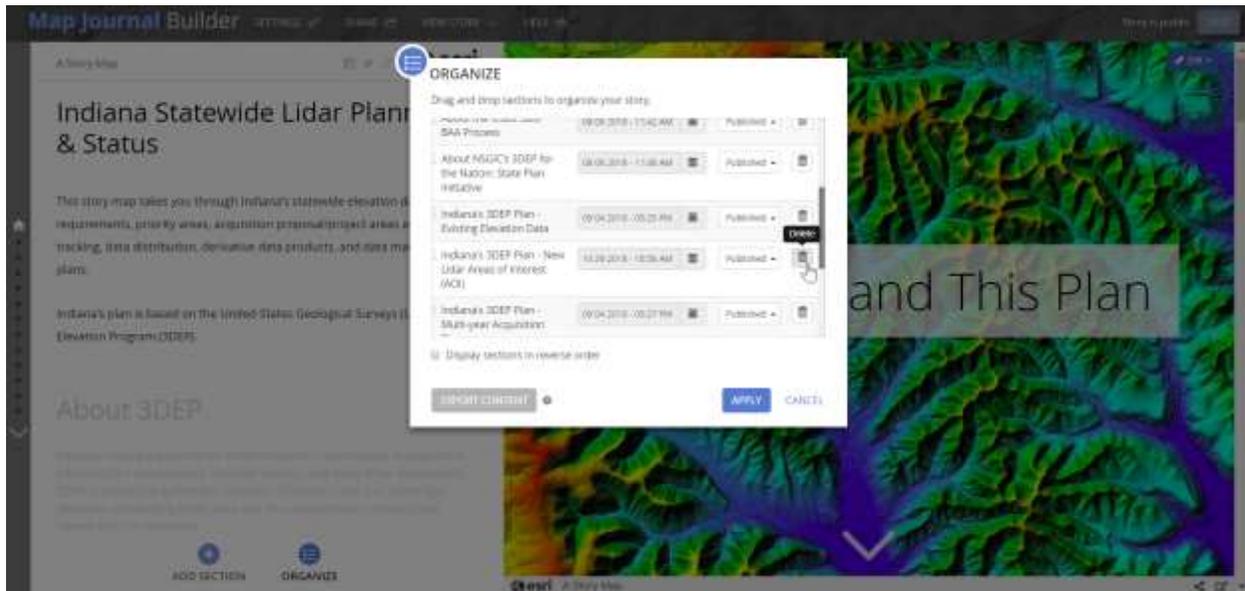
Notice that the id of your new item (in the browser URL bar) is not the same as the original App you copied.

A screenshot of the ArcGIS Online interface showing a new item page. The browser address bar (5) contains a URL with a unique ID. The page title (6) is "Indiana Statewide Lidar Planning - State Plan". On the right side, the "Configure App" button (7) is highlighted. The page includes a thumbnail, a description, and terms of use.

**Step 6:** Edit the new App name and Save it

Change and save the name and description of your newly copied Map Journal. (Besides this change, everything is duplicated (narrative content, global settings, section configuration) so all you have to do now is to edit the description in the home section and remove the other sections not needed for each custom Map Journal App (see step 7).

**Step 7:** Select Configure App to edit the section contents for this new Map Journal.



Select the ORGANIZE button, and then delete the Section from the Popup not required for this Map Journal App. Click Apply, and then Save the App to complete the edit process.

**Step 8.** Test the new App, and then Share the App with Everyone.

**Step 9.** Repeat Steps 1 – 8 for all additional Map Journal Apps you want to create from a copy of your original Map Journal.

## Appendix E. Web AppBuilder Design Example

This appendix provides design theme, style, and layout, widget and configuration examples to develop your State AOI Drawing Tool App.

This section was developed referencing the following Esri training resources:

### E.1 Esri Training Resources for Web AppBuilder

**Esri Documentation:** <https://doc.arcgis.com/en/web-appbuilder/create-apps/make-first-app.htm>

**Esri Online Training:**

<https://www.esri.com/training/catalog/57630433851d31e02a43eee6/creating-web-applications-using-templates-and-web-appbuilder-for-arcgis/>

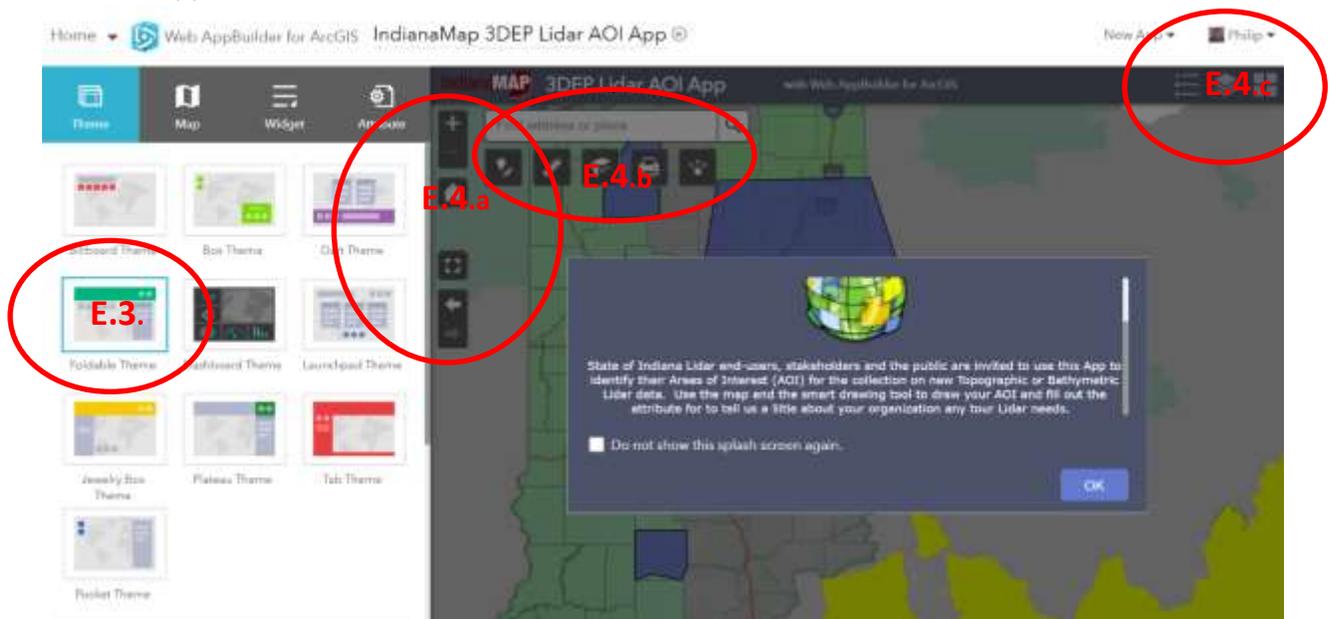
**Esri Training Videos on YouTube:**

Quick Intro: <https://www.youtube.com/watch?v=8KJykGLtrUY>

Extended Intro: <https://www.youtube.com/watch?v=nIYE-Nhdec>

Extended Intro: <https://www.youtube.com/watch?v=rGsaMzfq54o>

### E.2 Web AppBuilder Workflow:



1. Create your AOI map (See Step 1)
2. Create a Web App Builder App (See Steps 2 & 3)
3. Choose a Theme
4. Add widgets
5. Configure attributes
6. Preview, save and open

### E.3. Choose a Theme

Configure the look and feel of the app by choosing a theme. A theme includes a collection of panels, styles, layouts, and preconfigured widgets.

I recommend using the following Theme

- Foldable

a few others that may also work well are...

- Box
- Plateau

### E.4. Add widgets

Recommend adding the following Widgets to the App

#### E.4.a. App Controller Widgets

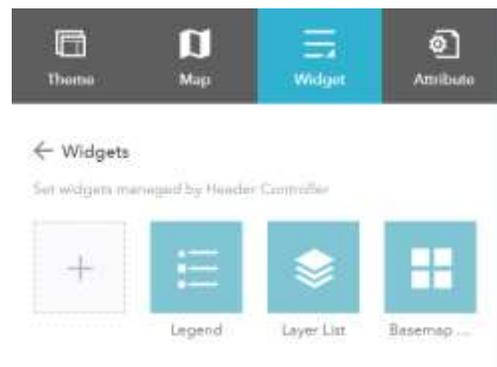
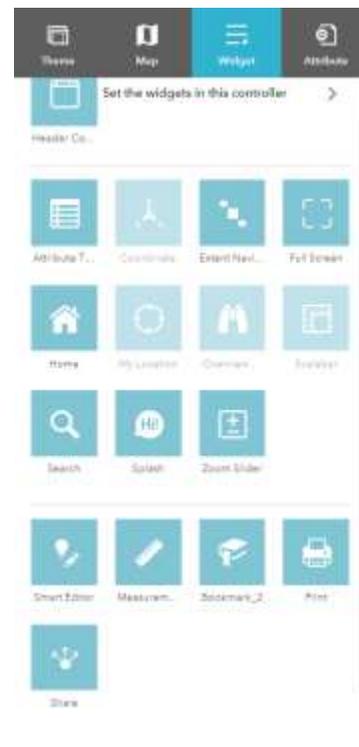
Attribute Table, Extent Navigation, Full Screen, Home, Search, and Zoom Slider

#### E.4.b. Menu Bar Controller Widgets

Smart Editor, Measurement, Bookmark, Print, and Share

#### E.4.c. Header Controller Widgets

Legend, Layer List, Basemap Gallery



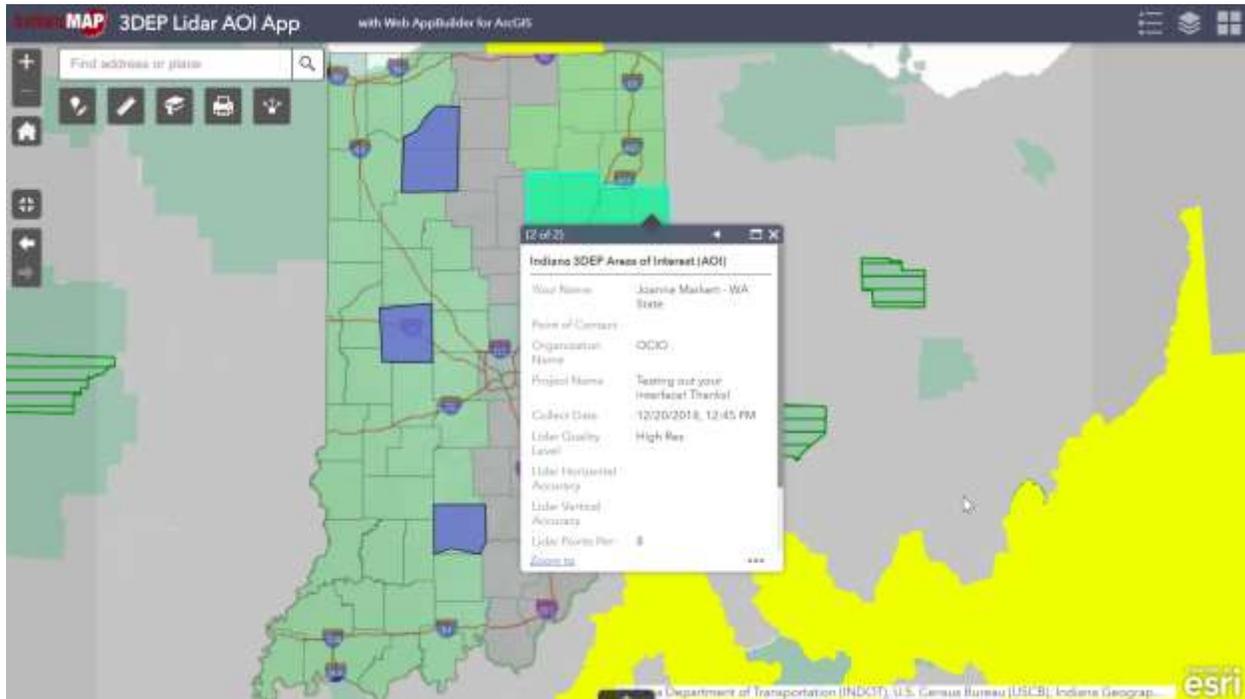
## E.5. Configure attributes

Branding – Add a Logo and title for your App.

## E.6. Save, Preview, and Launch

Be sure to Save all edits before refreshing your browser tab, and use the Preview tool to see how your App will look on different devices. Click the Launch button to test your App on your current device.

Link to Indiana Example shown below: <https://arcg.is/1PmHz1>



## Appendix F: Survey123 3DEP Lidar Areas of Interest Survey Tool for State Plan

This appendix provides a template for the Survey123 AOI survey questions.

**Introduction:** Accurate and up to date elevation data are essential for flood mitigation, conservation management, infrastructure development, national security, and many other applications. 3DEP supports the systematic collection of Quality Level 2 or better light detection and ranging (lidar) data over the conterminous United States, Hawaii and U.S. territories through the USGS National Geospatial Program (NGP). To insure complete statewide 3DEP Lidar coverage, each state works with their State, Tribal, Local Government, Federal, and other partners to identify Lidar Areas of Interest and set acquisition priorities and funding models to create a statewide Lidar acquisition plan.

This Maps and Apps tools support the state plan to help identify and publish Areas of Interest (AOI) for:

- Mapping Priorities: Needs, Requirements
- Planned and Ongoing Mapping Projects

Interested parties are encouraged to share their potential project AOI's through this system. Projects should represent geographic areas under consideration in the next 1 to 3 years. To submit your AOI, please answer the following questions:

**1.\* Name:**

*Character limit: 50*

**2.\* Provide point of contact information:**

\*THIS INFORMATION WILL BE SHARED with our state Lidar planning team. Business contact information is preferable. Please include: email, phone number, website, and any other relevant information.

*Character limit: 300*

**3.\* Please enter the name of the organization entering the project AOI:**

*Character limit: 200*

**4.\* Enter the County name[s] containing the majority of the project area:**

*Character limit: 200*

**5.\* Please enter a descriptive name for your project:**

Names that describe the location and purpose for the data are the most useful. (Examples: Black Creek Watershed Flood Study Lidar or 2016 San Diego Region Earthquake / Fire Modeling Lidar)

*Character limit: 250*

**6.\* Enter the month and year when you propose to collect the data:**

Choose Date in the format: mm/yyyy

For generic Spring acquisitions enter 02 for the month, for generic Fall/Winter enter 10 for the month.

**7.\* Choose 3DEP Topographic Lidar Quality Needed.**

Please choose [QL2, QL1, QL0, other]

3DEP data must adhere to the current version of the USGS Lidar Base Specification. The specification defines 5 quality levels. The standard quality level for the 3DEP program is QL2. Will your project adhere to the QL2 specification or do you have a requirement to adhere to the specifications that will result in higher density QL1 or QL0 data?

You can use the “other details” question below if you have mixed quality levels or other special situations.

**8. Provide any other important details about your project (optional):**

Include special requirements like if bathymetric Lidar is required, or a specific topographic point density or special accuracy requirements, time of year it must be collected, tide coordination requirements, etc.

*Character Limit: 500*

**9.\* Define your Area of Interest (AOI):**

Please zoom and pan the map to place a marker at the approximate location of your LiDAR Area of Interest:



*(Note: Center marker over your State to save default map display location)*

**10. File upload (optional):**

*Upload files*

If you have an existing Word, PDF document, or image showing and/or describing the location of your Area of Interest you can also upload it here.

**11. Select the [SUBMIT] button**

## Appendix G. Using Esri's ArcGIS Online and Web AppBuilder to create configurable 3DEP AOI Maps & Apps.

The process workflow below was created from Esri Blog Post: <https://www.esri.com/arcgis-blog/products/apps/mapping/use-web-appbuilder-to-create-configurable-app-templates/>

Using Web AppBuilder you can easily create configurable app templates for your organization by exporting 2D or 3D apps. Your template will be hosted in your portal; either in ArcGIS Online or Portal for ArcGIS. To create a configurable app using Web AppBuilder follow these steps:

**Step 1:** Start by creating your AOI web map. Ensure that the web map you use has the needed layers and attributes to configure the widgets you want to use in the template. Recommended statewide layers for this AOI Map include the following:

### **1a. State Base Map & Reference Layers:**

1a.1. Esri or custom State Base Map layer

1a.2. Boundary layers to help users locate their AOIs (e.g. Counties, City/Towns, Tribal Lands, Protected Government Lands (Fed., State, County, etc...), Watershed Boundaries, etc...)

1a.2a. US Census Bureau Places (TIGERweb) -

[https://tigerweb.geo.census.gov/arcgis/rest/services/TIGERweb/Places\\_CouSub\\_ConCity\\_SubMCD/MapServer](https://tigerweb.geo.census.gov/arcgis/rest/services/TIGERweb/Places_CouSub_ConCity_SubMCD/MapServer)

1a.2b. USGS PAD-US Data protected lands reference layers -

<https://www.arcgis.com/home/group.html?id=e1832888324f42e08f2a1f08e6904ad1&view=list&start=1&num=20&focus=layers-weblayers-features#content>

1a.2c. HUD Tribal Lands\* POC and Indian Nations POC reference layers – <http://hudgis-hud.opendata.arcgis.com/datasets/tribal-contact-data>

\*States with Tribal Lands need to address potential privacy concerns in their statewide elevation plan related to public access to the 3DEP data products covering Tribal Lands. We recommend State's with Tribal Lands include at least one representative in their Stakeholders Working Group to be a liaison for all Tribal Governments in the state.

1a.2d. USGS NHW Watershed Boundaries -

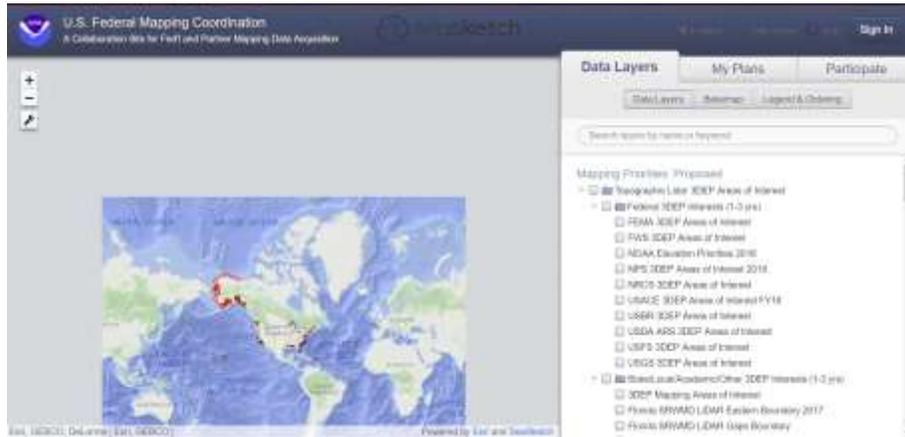
<https://hydro.nationalmap.gov/arcgis/rest/services/wbd/MapServer>

### **1b. National 3DEP Program Status Reference Layers from USGS & Seasketch:**

Include the REST Service layers listed below as needed to map existing 3DEP Program AOIs in your State. Additional Layers not documented below may be available in Seasketch for your State. Be sure to thoroughly review the Seasketch site for all relevant data layers that exist within your State.

**Seasketch Site –**

<https://www.seasketch.org/#projecthomepage/5272840f6ec5f42d210016e4/layers>



**USGS Seasketch layers REST services –**

<https://partnerships.nationalmap.gov/arcgis/rest/services>

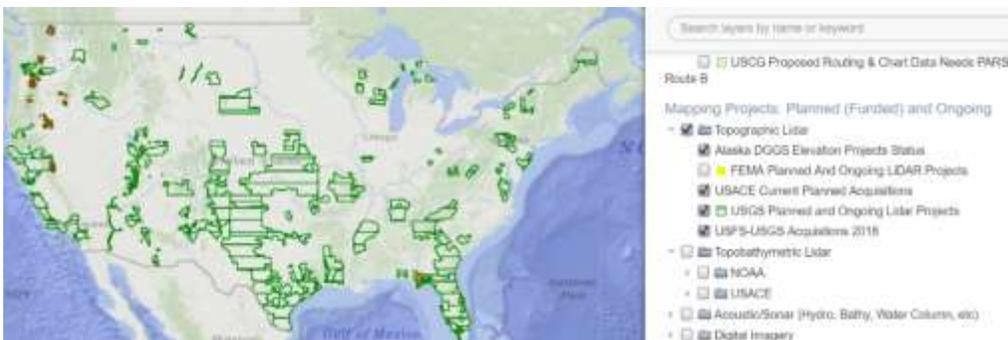
**1b.1. Layers: Existing 3DEP Quality Data - 3DEPSpecification (MapServer)**

<https://partnerships.nationalmap.gov/arcgis/rest/services/3DEPSpecification/MapServer>



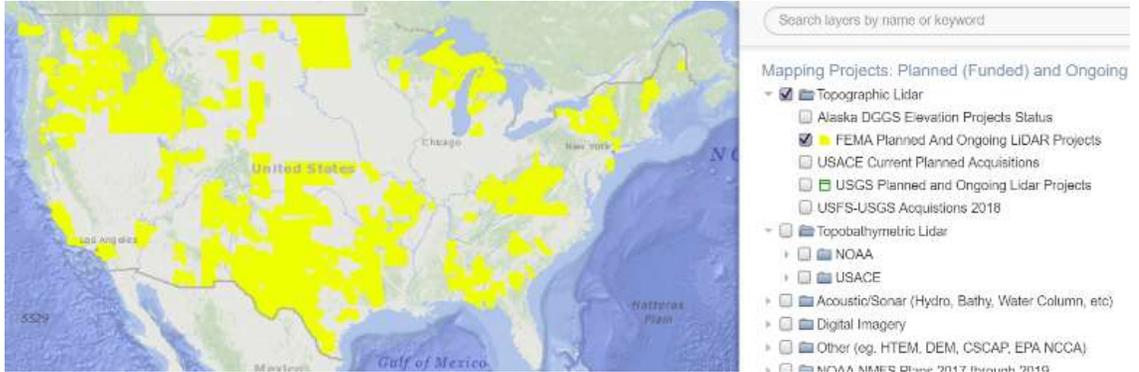
**1b.2. Layers: USGS Planned and Ongoing Lidar Projects – USGSPlannedOngoingLidar (MapServer)**

<https://partnerships.nationalmap.gov/arcgis/rest/services/USGSPlannedOngoingLidar/MapServer>



### 1b.3. Layer: FEMA Planned and Ongoing Lidar Projects – PlannedandOngoingLIDARProjects (FeatureServer)

<https://services.arcgis.com/XG15cJAlne2vxtgt/arcgis/rest/services/PlannedandOngoingLIDARProjects/FeatureServer>



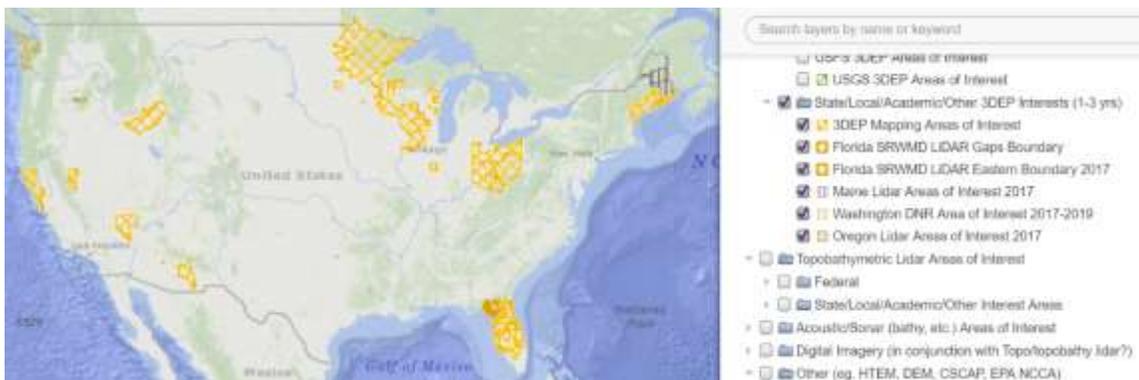
### 1b.4 Layer: 3DEP Alaska Acquisition Plan - Alaska\_acquisition (MapServer)

[https://partnerships.nationalmap.gov/arcgis/rest/services/Alaska\\_acquisition/MapServer](https://partnerships.nationalmap.gov/arcgis/rest/services/Alaska_acquisition/MapServer)



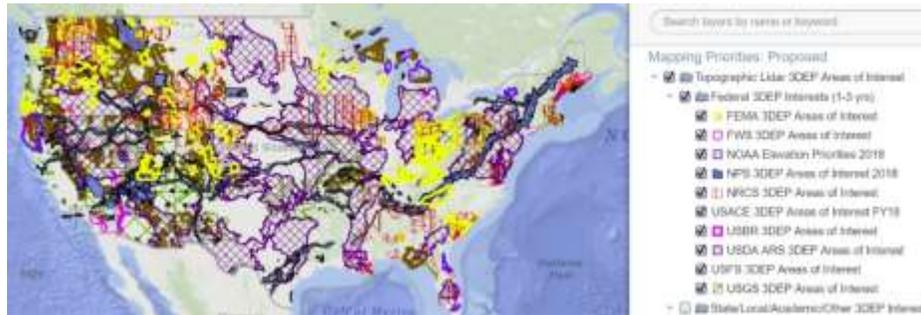
### 1b.5. Layers: 3DEP Topographic Lidar State/Local/Academic/Other AOIs, - Public3DEPAreasOfInterest (MapServer)

<https://partnerships.nationalmap.gov/arcgis/rest/services/Public3DEPAreasOfInterest/MapServer>



### 1.b.6. Layers: 3DEP Topographic Lidar Federal Partner AOIs

All Federal Partner AOI Layers are shown in graphic below. These Layers are all available as individual Agency / Project Services on Seasketch.



Services for the following 3DEP Federal Partner agencies are listed here – USGS, NRCS, FEMA and NPS:

USGSProposed3DEP (MapServer) -

<https://partnerships.nationalmap.gov/arcgis/rest/services/USGSProposed3DEP/MapServer>

NRCS\_3DEP\_Areas\_of\_Interest (FeatureServer) -

[https://services.arcgis.com/SXbDpmb7xQkk44JV/arcgis/rest/services/NRCS\\_3DEP\\_Areas\\_of\\_Interest/FeatureServer](https://services.arcgis.com/SXbDpmb7xQkk44JV/arcgis/rest/services/NRCS_3DEP_Areas_of_Interest/FeatureServer)

FEMA ProposedLIDARProjects (FeatureServer) -

<https://services.arcgis.com/XG15cJAlne2vxtgt/arcgis/rest/services/ProposedLIDARProjects/FeatureServer>

Note: FEMA AOI's do not necessarily reflect work under contract. Recommend confirming FEMA AOI's in your State with your Regional FEMA Office.

NPS 2018\_NPS\_BAA\_3DEP\_Priority\_Areas (FeatureServer)

[https://services1.arcgis.com/fBc8EJBxQRMchlei/arcgis/rest/services/2018\\_NPS\\_BAA\\_3DEP\\_Priority\\_Areas/FeatureServer](https://services1.arcgis.com/fBc8EJBxQRMchlei/arcgis/rest/services/2018_NPS_BAA_3DEP_Priority_Areas/FeatureServer)

NOTE: All other 3DEP Federal Partners, including USDA, FWS, USACE, NOAA, USBR, and USFS have small local/regional AOI's available through individual REST services. If they are needed for your state, see Seasketch viewer legend to access metadata for these services.

### 1.b.7. Layers: 3DEP Topobathymetric Lidar for Federal & State AOIs



**NOTE:** There are additional Federal Agency and State AOIs available as individual REST Services. See Seasketch viewer legend for metadata to access additional services if needed for your State.

### **1b.8. Layers: 3DEP 1KM Acquisition Tiles - 3DEPDataAcquisition\_1KMGrid (MapServer)**

#### **State, Counties, and 1KM Tiles Service:**

[https://partnerships.nationalmap.gov/arcgis/rest/services/3DEPDataAcquisition\\_1KMGrid/MapServer](https://partnerships.nationalmap.gov/arcgis/rest/services/3DEPDataAcquisition_1KMGrid/MapServer)



#### **1KM Tiles Service:**

[https://partnerships.nationalmap.gov/arcgis/rest/services/3DEPDataAcquisition\\_1KMGrid/MapServer/2](https://partnerships.nationalmap.gov/arcgis/rest/services/3DEPDataAcquisition_1KMGrid/MapServer/2)

#### **1c. State's 3DEP Planning Layers:**

These layers are created and managed by the State's 3DEP Team to collect, map, plan and report/share results of their State's 3DEP Lidar Plan.

**1c.1. State's Official Proposed 3DEP Lidar AOIs** (Use "State Proposed Areas Attributes" in Seasketch Schema\* & Publishing REST Service for Federal Partners to view in SeaSketch).

Use to map State AOIs with funding in place that are currently or will be proposed to the 3DEP BAA, FEMA, or to other State / Federal contracts.

#### **Indiana Example:**

[https://services.arcgis.com/vccNZX0ungPubori/arcgis/rest/services/Indiana2016\\_2019LidarPlan/FeatureServer](https://services.arcgis.com/vccNZX0ungPubori/arcgis/rest/services/Indiana2016_2019LidarPlan/FeatureServer)

**1c.2. State's Official Planning 3DEP Lidar AOIs** (Use "State Proposed Areas Attributes", plus "State Planning Areas Attributes" in Seasketch Schema\* & Publishing REST Service for FEDS viewing in SeaSketch).

Use to map State AOIs and GAPS that are not currently in the proposal process where the State's 3DEP Team is still seeking additional project partners and funding.

**Indiana Example:** See 1c.1 example above. To create this 3DEP "planning" layer add the "State Planning Area Attributes" listed in Appendix A used to identify the type (Planned or Gap), rank

(1-n), and description (Name) of these areas. These attributes also can be used to map the gaps in your statewide coverage - Areas of State where there are currently no 3DEP Lidar data, or no projects, or no ongoing planning activities.

### **1c.3. New 3DEP Lidar AOIs (Using State Schema\*\*)**

Layer where initial new AOIs are drawn and submitted to the State 3DEP Team. The team consolidates\*\*\* all new Planning AOIs onto this layer for the State's 3DEP Team to review and study before being officially moved to the State's Official Proposed 3DEP Lidar layer. See Appendix C for instructions on how to create this new layer.

#### **Indiana Example:**

[https://services.arcgis.com/vccNZX0ungPubori/arcgis/rest/services/State\\_of\\_Indiana\\_3DEP\\_Area\\_of\\_Interest\\_\(AOI\)\\_Editable\\_Feature\\_Layer/FeatureServer](https://services.arcgis.com/vccNZX0ungPubori/arcgis/rest/services/State_of_Indiana_3DEP_Area_of_Interest_(AOI)_Editable_Feature_Layer/FeatureServer)

#### **Footnotes:**

\*See Appendix A for Seasketch Attribute Schema

\*\* See Appendix B for State AOI Attribute Schema

\*\*\* New AOIs are consolidated onto this layer by the State's 3DEP Team from all sources: Email Responses, Survey123 Responses, and new polygons drawn on the State's AOI Map.

Finally, Save AOI web map and test for suitability of use.

**Step 2:** Share your map, and click Create A Web App.

**Step 3.** In Create A New Web App, choose Web AppBuilder.

**Step 4.** Use Web AppBuilder to build your app. Enter the required inputs, then click Get Started to build your app by selecting a theme, style, and layout. Then add widgets and configure them as desired. (See Appendix E. Web AppBuilder Design Example for examples.)

**Step 5.** Export your app as a template. When finished building your app, Save the app and click the arrow next to Save and choose Export as Template. The original app used to create the template must not be deleted.

**Step 6.** Set the configurable parameters of your app. Set Configurable Parameters enables you to choose what elements can be configured, how they can be configured, and provides a preview of the app configuration panel. Set Configurable Parameters has three panes.

**6a.** Use the left pane (App Properties) to select configurable elements (4a). Click plus (+) to add them to the middle pane to set the configurable parameters.

**6b.** Use the middle pane to refine the configurable parameters for each element. Click the element to display configuration options.

**6c.** The right pane provides a preview of the configuration panel for the app.

When finished, click Export to create the web app template. Note that you can reconfigure the template later, and click Update to overwrite your previous settings.

**Step 7.** Add the template to your organization’s app gallery. If your organization uses a custom collection of configurable apps (i.e., is not using the Esri default apps), and you have appropriate privileges to add items to your organization’s configurable apps group, the new template will automatically be added and is ready to use. If not, you will see a warning message and the owner of the configurable apps group will need to add your template in order for it to be displayed in the gallery.

Once in the gallery, the new configurable app will be available along with other apps you’ve added.

**Step 8.** Finalize your work.

8a. It’s a best practice to complete the item details for your configurable app template, replacing the default thumbnail, and adding a good summary and description.

8b. Under Settings, set Delete Protection so the item is not accidentally deleted. See How to prevent accidental deletion for more information.

8c. Ensure that the template is shared publicly, so public apps can be made using it.

8d. View Application will open the app using the map that you used while configuring the template. It’s a good practice to ensure that the map’s item details have been completed, and that Delete Protection is enabled for the map.

Note: The app used to create the template must not be deleted. Use Delete Protection to ensure it is not accidentally removed.

## **B. Using the configurable app**

Your new configurable app works like any other.

**Step 1.** Author a web map, Save, then Share. Click Create A Web App.

**Step 2.** The new configurable app will appear in the gallery.

**Step 3.** Click the app thumbnail to choose it, and learn more.

**Step 4.** Click Preview, or choose Create Web App to configure the app. Choosing Create Web App opens the app with the configuration panel on the left, showing options as configured above.

**Step 5.** When finished configuring the app, click Save, then Share to make it available for others.

## **C. For more information, see the following:**

- [Web AppBuilder for ArcGIS](#) on Esri.com
- [Web AppBuilder for ArcGIS](#) product pages
- [Export as a template](#)
- [Update the template](#)

## Appendix H Survey123 Contact Information Collection Tool

a. Enter your contact information below: (Character limit: 1000)

Please be sure to include your Full Name and email address and /or phone number so we can contact you.

b. Enter a Question or Comment below: (Character Limit: 1000)

Include any specific questions or comments you may have.

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