The SDMS Website User Guide

BLM-Alaska

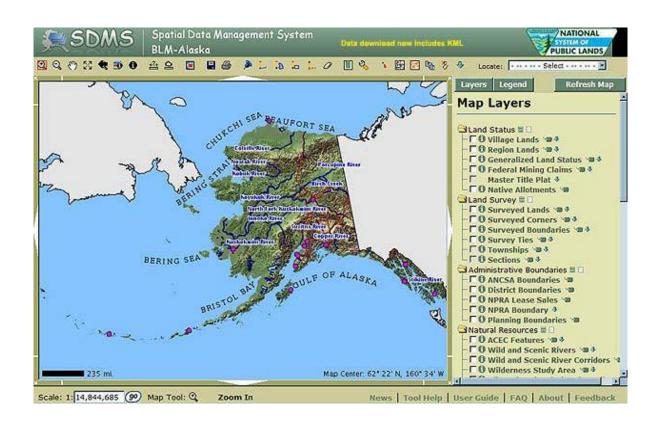


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Introduction

The Spatial Data Management System (SDMS) website is a one-stop tool for accessing geospatial data. You can view, research, print and download information such as, surveyed lands, mining claims and BLM land record documents, all from one easy to use site.

SDMS is an evolving product as new geospatial data layers and capabilities are periodically added. The data presented here is GIS data that has been "published", meaning the data meets certain criteria for accuracy, completeness, maintainability, documentation and relevance.

Please note that the on-line data and documents available through this site do not constitute nor replace official legal records, documents or case files. Refer to specific records on file at BLM for official record information.

Accessing the SDMS Homepage

The SDMS homepage can be accessed from the BLM-Alaska external homepage (http://www.blm.gov/ak/st/en.html). Expand the "Information Center" menu on the left hand side of the page, by clicking on the plus sign to the left. Scroll down and click on "Spatial Data Management". You may want to bookmark this site in your browser for easier access.



SDMS Homepage

This homepage provides an introduction to the website, access to the map viewer and additional report functionality not found in the map viewer. Be sure to read the disclaimer and privacy notices.



SDMS Column

The SDMS column on the left hand side of the homepage, contains a number of useful tools, information and access to BLM-Alaska land record documents.

ACRES: Links to the Alaska Case Retrieval Enterprise System.

Map Interface: To open the SDMS Map Viewer, click on this link.

Conveyance Documents: Links to the Conveyance Documents Online System. Accessible from the Map Viewer as well.

Master Title Plats: Links to the MTP Online System. Accessible from the Map Viewer as well.

Survey Plats: Links to the Surveys Online System. Accessible from the Map Viewer as well.

ANCSA 17(b) Easements: Links to the Easements Online System. Accessible from the Map Viewer as well.

Download Data: Provides access to download sites for selected geospatial data layers. Follow these links if you want to download the data for your own use.

Tools and Utilities: Provides access to a number of reports.

- 1. List of surveys collected in SDMS to date.
- 2. List of surveys collected in SDMS to date by township query.
- 3. List of Protracted Township and Section coordinates by township query.
- 4. Find what township a coordinate is in by latitude and longitude query.
- 5. Search for land parcel names containing... [whole or partial names this is case sensitive
 - must use all capital letters, i.e. BENCH or GREEN or T10N]

WMS: Web Map Service

News: Display the most recent news about SDMS, including enhancements and data updates.

Data Updates: Shows the date of the last update on some of the datasets.

FAQ: Frequently Asked Questions

Feedback: Email link to send feedback to the SDMS developers. Accessible from the Map Viewer as well.

Map Viewer

The Map Viewer is the main portion of the website and will be the focus of the remaining descriptions. The Map Viewer is an application that provides access to Geospatial Data published on this site.



Hint: If you click on the SDMS logo at the top left of the viewer, it will take you back to the Spatial Data Management System Homepage. Clicking on the BLM logo at the top right will take you to the BLM National External Website.

Map Canvas

The main section of the map viewer, where the spatial data is displayed, is the "Map Canvas".



The geographic area that is visible, is called the "Geographic Extent" or just the "Extent". So, the "Map Canvas" is where the "Extent" is displayed.

Tool Bar

The tool bar has navigational tools, drawing tools, links to other databases, and sharing capabilities.



A very handy feature of this interface is that when you cursor over any of the tools on the tool bar, a short description telling you what the tool does will appear. To activate a tool, click on the icon in the tool bar.

If you are not sure which tool is active, there is a display bar close to the bottom of the SDMS window on the left. You'll see "Map Tool: [the tool icon] the tool description". This is the same short description that you see when you cursor over each tool. Example:

Map Tool: **Q** Zoom In

Another way to tell what tool is active is a red, square outline around the tool icon on the tool bar.

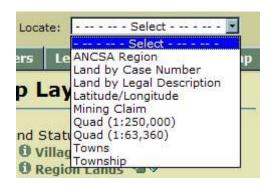
Zoom In: The Zoom In button allows you to "window" into your particular area on the map. There are two ways to zoom in. One is to activate the tool in the tool bar, and then click anywhere on the map canvas. Wherever you click will then be centered in the map canvas when

the zoomed in view comes up. The second way is to activate the tool and then click, hold the mouse button down, drag a corner of the zoom box on the map canvas and then release. This will zoom you in to a specific area much quicker, depending on how large you draw the box.

- **Zoom Out:** The Zoom Out tool causes the map to "back out" so you can see approximately 2 times more each "click". The map will be centered at the point clicked.
- **Pan:** With this tool, you can maneuver the extent you are looking at within the map canvas. If you want to move your extent so that you can see just slightly further east, you activate the tool, click on the extent, hold down and drag the map to the west.
- **Full Extent:** Clicking on this tool resets the geographic extent to the full State of Alaska.
- **Zoom Previous:** This will take you back to the previous map extent. It works like a back button to access previous geographic extents, one at a time.
- **Identify Visible:** To see information about each active layer at a certain position on the map, just activate this tool and then click on the map at the desired location.
- **dentify:** The identify tool is used for reporting. When you click on the map with an identify layer active, the features at the location selected will be displayed.
- **Measure:** Use this tool to calculate the distance between points on the map.
- Measure area: By picking multiple points around an area on the map, this tool will calculate the area in square miles, acres, or square feet depending on what scale you are at.
- **Index Map:** This handy tool will allow you to see the location of your current map extent within Alaska.
- Save Session: Unlike the bookmark feature which saves the geographic extent, Save Session also saves the currently visible map layers and any custom drawn shapes. It saves the information to the server, not to your local drive and it provides a URL to access the saved session. This session link will remain on the server as long as it is being accessed. Once it has been inactive for 90 days, it will be deleted. It also gives you the opportunity to add the URL to your favorites and email the link to someone else.
- **Print:** This process creates a map, with legend, in a .pdf format that can be saved or printed. It allows you to title the map, pick a scale and print it in the default size of 81/2 by 11, or plot it to a larger size.
- **Pushpin:** When you click on the map with this tool active, a form will show in the map layers panel for you to choose the color of pushpin to add to the map, and optionally a text comment to display beside the pushpin.
- Line Markup: Adds user-defined lines to the map.

- Polygon Markup: Adds user-defined polygons to the map.
- **Rectangle Markup:** Adds user-defined rectangles to the map.
- **Erase Markup:** Removes user markup from the map using a point or a box.
- **Clear:** Clicking this icon will clear all markup graphics that you have placed on the map.
- **Bookmarks:** Creating a bookmark saves the current geographic extent of your map canvas for future access. It does not save the layers you might have turned on only the extent. Also, this information is saved on your local hard drive. That means if you go to another machine, you will not be able to pull up that bookmark.
- **Utilities:** Offers two different queries; one displays a list of available surveys sorted by name or date entered, the other creates a report for land parcel names containing whole or partial names that you submit. For example: GREEN or T10N. It is case sensitive, use all capitals.
- **Lat/Lon:** By activating this tool and clicking anywhere on the map, it will report to you the latitude and longitude of that point.
- **Display MTP:** Displays the Master Title Plat for the location clicked on within the map.
- **Display Survey:** Displays the survey plat for a selected surveyed land parcel.
- **Open Easements Online:** Clicking on this icon will open up Easements Online in a new window.
- ▶ **Data Download:** Download Data to use with your GIS software. The visible features are extracted and packaged into a zip file. To use the data you must have software that supports shapefiles. The metadata for the layers is included in the zip file. Through the Data Download function, there is also the capability of adding KML. KML is a file format used to display geographic data in an Earth browser such as Google Earth, Google Maps, and ArcGIS Explorer.

Locate: The locate tool allows you to navigate to an area of the state by the different methods listed in the drop down box (as shown below).



Layers Bar

The Layers Bar allows you to toggle between the Map Layers and the Legend, or to refresh the display of map layers on the map canvas. When you click on the "Layers" or "Legend" button, the information displays below the Layers Bar in the area referred to as the "Layers Panel".

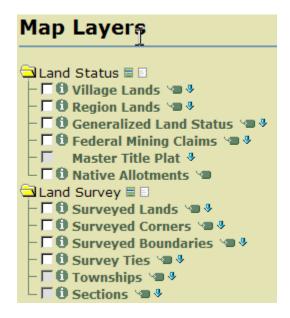


Refresh Map: Click this button to redraw the map. This is used to view the updated map after you change the layers that are visible using the layers list.

Legend: The Legend shows the symbolization used for each visible layer. The legend is dynamic in that as the visible layers are changed, the legend updates accordingly.



Layers: Map Layers are graphic information portraying a "subject", such as surveyed corner locations and Mining claim locations. Map Layer data are grouped according to common geometry types, such as, points, lines and area (polygon). The information is displayed to the screen by making a layer "visible". For a list of layers with definitions, see Appendix A.



- **Category Folders:** The layers are grouped by category as folders. The folders are expandable and collapsible, making it possible to see and use one group of layers at a time.
- **Layers On:** At the end of each category name are two icons. The left one turns all layers in that folder on.
- Layers Off: The right icon turns all layers in that folder off.

Refresh Map: To make a layer visible, or turn it on, click in the box at the left end of the layer name, and hit the refresh map button. Anytime you change the status of a layer, you must click on the "Refresh Map" button to make the change visible on the map canvas. If that box is grayed out, it means you have not zoomed in close enough to a scale where that layer is available. There are two "Refresh Map" buttons. One is in the "Layer Bar" next to the "Legend" button. The other is at the bottom of the layer list.

Automatically Refresh Map: Another feature used for refreshing the map is the box and text directly beneath the lower "Refresh Map" button. The text is "Automatically Refresh Map". When this box has a check in it, every time you select or deselect a layer, the system will automatically refresh the map.

- Label On: At the end of each layer name there is a tag icon. This feature displays map labels for that layer. For instance, for the Major Towns layer in the Reference Themes category, if the layer is turned on, there will be pink dots on the map canvas depicting where major towns are located. If you turn on the labels for that layer, you will now see the dots as well as the names of the towns.
- **Label Off:** Click once more on the label icon and it will turn the labels feature off.

- Data Download: The blue down arrow at the end of each layer name is to download data to use with your GIS software. The visible features are extracted and packaged into a zip file. To use the data you must have software that supports shapefiles. The metadata for the layers is included in the zip file.
- **1 Identify:** Clicking on the "identify" icon to the left of the layer makes that layer active. Clicking a specific feature on the map canvas then displays further attribute information regarding that feature.

Notes: At the very bottom of the map layers panel there is a tool help displayed.

Metadata: Layer names are actually links to metadata about those layers. Metadata is data about data. If you click on any one of the layer names, a window will display information about this layer. It provides a description, a point of contact regarding this layer, the original format this information comes in, and much, much more.

Hint: To print what is displayed in the Map Layers Panel; right click in the panel and select "Print". You will get a hard copy print of whatever is displayed in the panel. This is perfect for printing the results of functions that display in the Map Layers Panel, such as Identify or Measure.

Help Bar

News	Tool Help	User Guide	FAO	About	Feedback

News: Display the most recent news about SDMS, including enhancements and data updates.

Tool Help: Gives descriptions of the different buttons and tools available. Tool help is displayed in the map layers panel.

User Guide: An online version of the user guide.

FAQ: Frequently asked questions and the answers.

About: Describes the SDMS program and what it allows you to do.

Feedback: Your avenue for sharing any comments and suggestions with the programmers, or to ask questions you might have about SDMS.

Appendix A - Map Layers

Land Status

Village Lands: The geographic extent of ANCSA village lands as an amalgamation of village surface estate selections and conveyances. Compiled from ALIS data and generalized at the section level.

Region Lands: The geographic extent of ANCSA region lands as an amalgamation of regional surface estate selections and conveyances. Compiled from ALIS data and generalized at the section level.

Generalized Land Status: Generalized land status patterns with respect to Federal, State and Native Lands. Compiled from ALIS data and generalized at the section level.

Federal Mining Claims: Portrayal of active federal mining claims compiled from federal location notices.

Master Title Plat: Images portraying parcel level ownership and land status. This layer is compiled as a seamless dataset from MTP drawings.

Native Allotments: Pending allotment applications and conveyed allotments that have been digitized in order to provide a graphic or spatial depiction of the allotment.

Land Survey

Surveyed Lands: Represents surveyed land parcels. Compiled from survey records utilizing coordinate geometry (COGO) input. This layer is a work in progress.

Surveyed Corners: Represents surveyed corners of land parcels. Compiled from survey records utilizing coordinate geometry (COGO) input. This layer is a work in progress.

Surveyed Boundaries: Represents surveyed boundaries of land parcels. Compiled from survey records utilizing coordinate geometry (COGO) input. This layer is a work in progress.

Survey Ties: Represents survey ties to and between land parcels. Compiled from survey records utilizing coordinate geometry (COGO) input. This layer is a work in progress.

Townships: Portrays boundaries of protracted townships. Compiled from BLM protracted PLSS coordinates dataset.

Sections: This layer portrays boundaries of protracted sections. Compiled from BLM protracted PLSS coordinates dataset.

Administrative Boundaries

ANCSA Boundaries: Represents the administrative boundaries of ANCSA regional corporations. Compiled from US Census Bureau TIGER data.

District Boundaries: The geographic extent of BLM field and district office administrative areas. Compiled from field office datasets.

NPRA Lease Sales: Represents the NPRA Lease Sales for years 1999, 2002, 2004, and 2006. Tract polygons and attribute information were obtained from the BLM-Alaska ACRES case recordation database.

NPRA Boundary: National Petroleum Reserve - Alaska exterior boundary.

Planning Boundaries: A compilation of all BLM planning boundaries within Alaska.

Natural Resources

ACEC Features: Areas of Critical Environmental Concern are administratively designated management areas to protect sensitive natural resource, cultural resource and other designations.

Wild and Scenic Rivers: Linear features representing Wild and Scenic Rivers (WSR) in Alaska. Compiled from the USGS National Hydrology Dataset (NHD).

Wild and Scenic River Corridors: Wild and Scenic River (WSR) Corridors in Alaska. Compiled from the Administrative Large Parcel Boundaries dataset produced by the AK Department of Natural Resources and River Management Plans. Inholding information was obtained from the Native Allotment dataset.

Wilderness Study Area: Geographic extent of the Central Arctic Management Area (CAMA) Wilderness Study Area. These boundaries were digitally created in response to IM 2000-040. Compiled from master title plats, CAMA Final Environmental Impact Statement, ANILCA sec. 1001 (a), and general land status coverage of Alaska.

Iditarod National Historic Trail: Iditarod National Historic Trail within Alaska, derived from 1:250,000 USGS Topo maps.

National Conservation Areas: National Conservation Areas (NCA), National Recreation Areas (NRA), and Special Management Areas (SMA) within Alaska. NCA and NRA data is based entirely on the "Administrative Large Parcel Boundaries" dataset produced by the AK Department of Natural Resources. SMA data was derived from Alaska State DNR PLSS section data. Inholding information from Native Allotment dataset.

National Hydrography Dataset: Portrayal of lakes, ponds, streams, rivers, springs and wells. Compiled from USGS Digital Line Graph hydrographic datasets and integrated with US EPA river reach system.

HUC Sub-basins: Geographic extent of hydrologic units within Alaska watershed sub-basins.

Easements

Easement Quadrangles: A statewide view of the current clipped and georeferenced 17(b) easement quadrangle images.

Easement Quadrangle Index: This layer is intended as a graphic index of the ANCSA 17(b) easement quadrangle images. The graphic index shows where easement quadrangle images exist at the time of publication. This layer will be updated as easement quadrangles are created or deleted.

Easement Access and Sites: Graphic representation of the ANCSA 17(b) easement access and sites reserved by the federal government from Interimly conveyed or patented lands for utility corridors, access remote public lands or waterways. Listed by the following Native Regions: **Ahtna, Bristol Bay, Chugach, Cook Inlet, Doyon, Koniag, and NANA.**

Navigability

Determination Doc Index: Navigability Determination Areas are outlines of the area studied by an individual navigability report and are intended to provide a graphic or spatial depiction of the areas that have been the subject of navigability determination reports.

Determination Status: Identifies the geographic extent of navigability determination areas as defined by navigability reports, determinations and other documents. Provides access to individual scanned navigability documents. This layer is a work in progress.

Physical Land Features

Quads (1:63,360): Images of USGS 1:63,360 topographic maps. Compiled as a seamless dataset.

Quads (1:250,000): Images of USGS 1:250,000 topographic maps. Compiled as a seamless dataset.

Shaded Relief: Image portraying the terrain (shaded relief) of Alaska. Compiled from 300 meter resolution Digital Elevation Model data and a USGS hill shade map.

Reference Themes:

Annotation: Notation on the Map Canvas of the water bodies surrounding Alaska.

Major Roads: Centerlines of major highways in Alaska. Created by the Alaska DOT.

Major Rivers: Selected major rivers and secondary rivers/streams. Compiled from USGS 1:2,000,000 Digital Line Graph dataset and a 1995 navigability coverage.

Lakes: Inland bodies of water in the state of Alaska.

Major Towns: Location of towns and villages filtered by population. Compiled from USGS 1:250,000 quadrangles maps.

All Towns: Location of towns and villages. Compiled from USGS 1:250,000 quadrangle maps

Quad Boundaries (1:63,360): Boundaries of USGS 1:63,360 quadrangle maps. Compiled from BLM coordinate datasets.

Quad Boundaries (1:250,000): Boundaries of USGS 1:250,000 quadrangle maps. Compiled from BLM coordinate datasets.

Alaska: Coastline of Alaska as compiled from USGS 1:250,000 quadrangle maps.

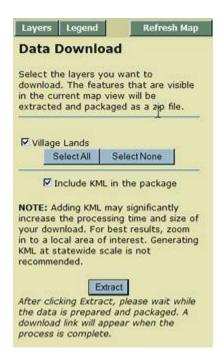
Alaska Detailed Coastline: Detailed coastline of Alaska as compiled from USGS 1:63,360 quadrangle maps.

International Boundary: Portrays Alaska's boundaries with Canada and Russia. Compiled from declassified CIA maps obtained from USF&WS.

Appendix B – How To:

Generate KML: From the SDMS Map Interface –

- 1. Zoom to area of interest
- 2. Make layers visible (e.g. Village Lands)
- 3. Click Download Tool (blue arrow in Tool Bar)
- 4. A list of layers currently visible is presented. Choose the layers you want by clicking in the check boxes. The features that are visible in the current map view, and are selected with a checkmark will be extracted and packaged as a zip file.
- 5. To include KML in the download package, click in the "Include KML in the package" check box and click on the "Extract" button.



6. In the next window, at the end of the first sentence, click on the blue hyperlink that reads "download".

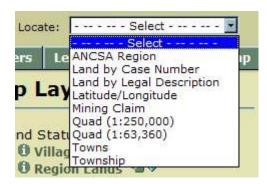


- 7. When the "File Download" window comes up, choose "Save". After saving the zip file in your directory, open the zip file and double click on the file with the .xml extension.
- 8. If you do not already have Google Earth open, it will open it and take you to your extent.
- 9. If you have Google Earth open, select "File", "Open" browse to where you have the KML file saved.

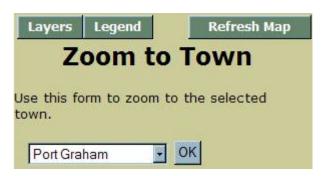
Tip: The newly added KML is added to Google Earth in "Temporary Places". You may want to right click on the listed KML and save to "My Places".

Finding Land Status: Using the scenario of wanting to first find the Generalized Land Status of the Port Graham area, and then find detailed information about a specific parcel. Start from the SDMS Map Interface –

1. Using the "Locate" tool Locate: ----- Select -----, from the drop down menu, select "Towns".

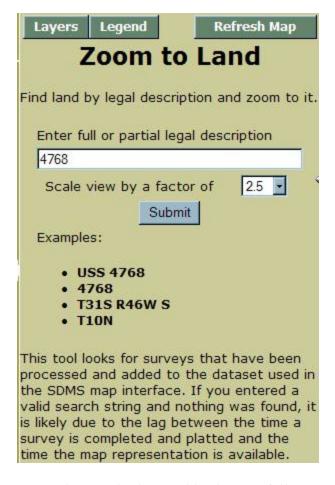


2. **Zoom to Town** will display in the **Layers Panel**, which is the area found beneath the "Layers Bar". In the drop down menu find Port Graham, and click on the "OK" button.

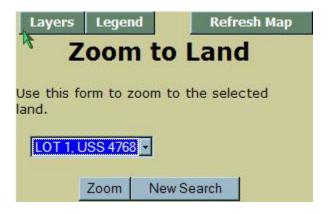


3. Now the layers need to be turned on. Click on the "Layers" button and in the **Layers Panel** click in the checkbox next to "Generalized Land Status", click on the "Label" icon **□** at the end of the layer name and then click on the "Refresh Map" button.

- 4. To see the significance of the different colors visible in the extent, toggle to the map legend by clicking on the "Legend" button. Toggle back to the "Layers" list.
- 5. Now, to identify a specific parcel, e.g. US Survey (USS) 4768, lot 1. Revisit the "Locate" tool, click on the drop down menu and select "Land by Legal Description".
- 6. In the Layers Panel, Zoom to Land will display.



- 7. As can be seen in the graphic above, a full or partial legal description may be entered. Type in 4768, choose 2.5 from the drop down menu for "Scale view by a factor of", and click on the "Submit" button.
- 8. Another drop down comes up with all the parcels of land found with the full or partial description that was typed in "Land by Legal Description" field. Among those listed is LOT 1, USS 4768.
- 9. Click on the "Zoom" button.



- 10. To actually see which parcel is USS 4768, click on the "Layers" button and turn on the "Surveyed Lands" layer and click on the "Label" icon at the end of the "Surveyed Lands" layer. Click on the "Refresh Map" button.
- 11. To see information on this survey, click on the "Identify" icon **1** at the front of the "Surveyed Lands" layer. Then click anywhere within the survey parcel visible on the Map Canvas.
- 12. The information will show in the **Layers Panel**.



13. To view the Case Abstract through ACRES, click on the blue text as seen above.