



“ALASKA DEC DRINKING WATER PROTECTION AREAS” PUBLIC WEB MAP

Basic Instructions

<http://dec.alaska.gov/media/14954/dwp-dec-dw-public-web-map-instructions.pdf>

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How to Open Web Map

- Visit DEC Home, <http://dec.alaska.gov/>
 - Click on “DEC Web Maps” icon

A screenshot of the Alaska Department of Environmental Conservation (DEC) website home page. The page has a dark blue header with the DEC logo and navigation links. Below the header is a search bar and a main content area with various sections: "CURRENT EVENTS" with links to "Fairbanks Particulate Matter PM2.5" and "Per- and Polyfluoroalkyl Substances (PFAS)", "POPULAR CONTENT" with a grid of links, and several service tiles at the bottom including "COMMISSIONER'S OFFICE", "AIR QUALITY", "SPILL PREVENTION & RESPONSE", "ACTIVE SPILL RESPONSES", "FOOD RECALL ALERTS", "AIR QUALITY ADVISORIES", "FOOD WORKER CARDS", "PRESS RELEASES", "CANNABIS INDUSTRY INFORMATION", and "TRIBAL RELATIONS". A red box highlights the "DEC WEB MAPS" tile, and a yellow arrow points from it to a larger map image on the right.





How to Open Web Map (cont'd.)

- Scroll down to: “Alaska DEC Drinking Water Protection Areas”
 - Also includes map layers from other DEC Programs (i.e., DEC Contaminated Sites)



Alaska DEC Drinking Water Protection Areas



A screenshot of the Alaska Department of Environmental Conservation's Geographic Information Systems (GIS) website. The page features a dark blue header with the state logo and navigation links. Below the header is a search bar and a menu with options like "ABOUT OUR GIS", "ARCGIS SERVICES DIRECTORY", "MAPPING LINKS", "OPEN DATA", and "WEB MAPS". The main content area is titled "DEC WEB MAPS" and contains introductory text about the map gallery. At the bottom, there is a section titled "ALL MAPS" displaying a grid of map thumbnails with titles such as "Alaska DEC Air Quality Advisories", "Alaska DEC AWS Challenge Communities", "Alaska DEC Contaminated Sites", and "Alaska DEC Drinking Water & Earthquakes".

Basic instructions: <http://dec.alaska.gov/media/14954/dwp-dec-dw-public-web-map-instructions.pdf>

Web maps: <http://dec.alaska.gov/das/gis/apps.htm>



How to Open Web Map (cont'd.)

- **READ Description Page**
- Click "Open in map viewer"

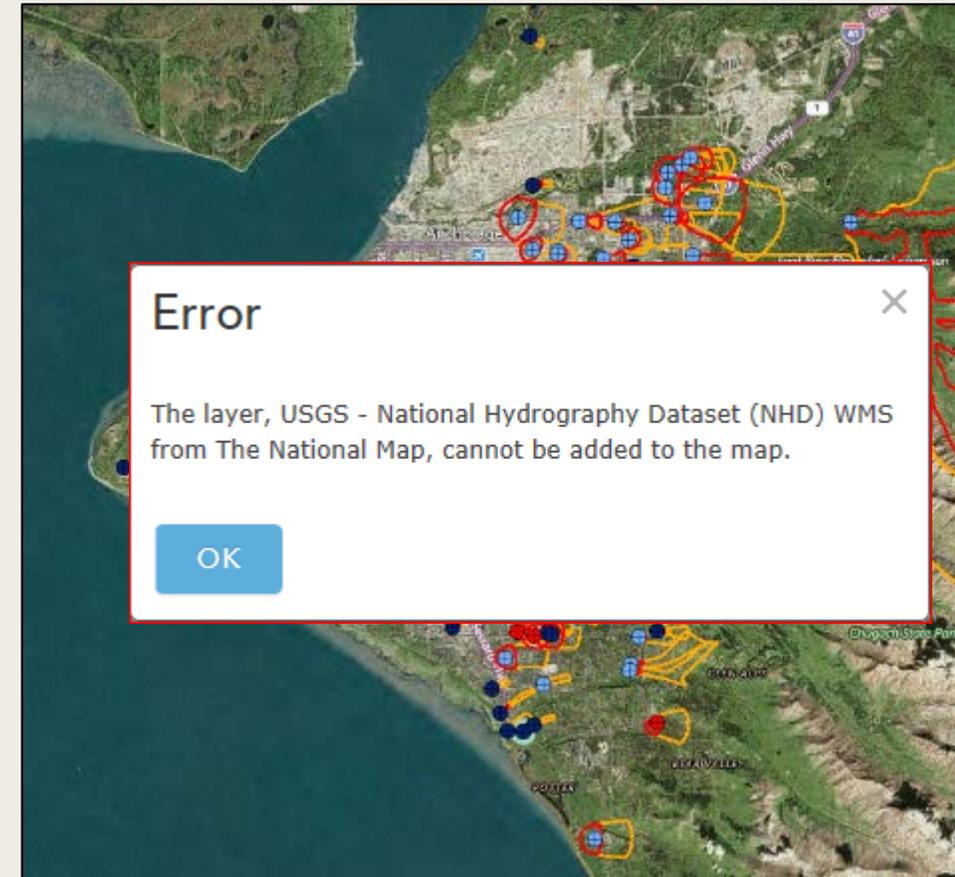
The screenshot shows the ArcGIS web interface. At the top, there is a navigation bar with "ArcGIS", "Pricing", "Map", "Scene", and "Help" on the left, and a search icon and "Sign In" on the right. Below this is a blue header for "Alaska DEC Drinking Water Protection Areas" with an "Overview" button on the right. The main content area features a map thumbnail on the left showing a landscape with red and orange outlines. To the right of the map, there is a description: "This map displays Public (regulated) Drinking Water Protection Areas and well/intake locations for known active public water systems. The data is continuously being revised." Below the description, it says "Web Map by [adec.cmiller](#)" and "Created: Mar 21, 2012 Updated: May 21, 2018 View Count: 47,821". On the right side of the map area, there are three buttons: "Open in Map Viewer" (highlighted in green), "Open in ArcGIS Desktop" (with a dropdown arrow), and "Open Presentation". Below the map area, there is a "Description" section with a yellow highlight. The text in the description reads: "Note: Drinking Water Protection Areas are displayed at 1 : 3,000,000 scale." and "This map was created by the State of Alaska Department of Environmental Conservation-Drinking Water Program to assist the public with identifying known public Drinking Water Protection Areas in the State of Alaska. Please note: there are". To the right of the description, there is a "Details" section showing "Size: 140 KB", a star rating of four stars, and social media icons for Facebook, Twitter, and LinkedIn.



Web Map Errors

■ Error messages

- *This map uses data from various sources, some of which we don't control.*
- *Some of these layers break occasionally, but usually only temporarily.*
- *If you receive an error message, click "OK".*
- *The map will still work, but that layer may be down temporarily.*
- *If it is a layer critical to your work, please let us know, and we can try to track down the issue.*
 - Contact(s):
 - *Charley Palmer, 907-269-0292, or at charley.palmer@alaska.gov*
 - *Chris Miller, 907-269-7549, or at chris.miller@alaska.gov*





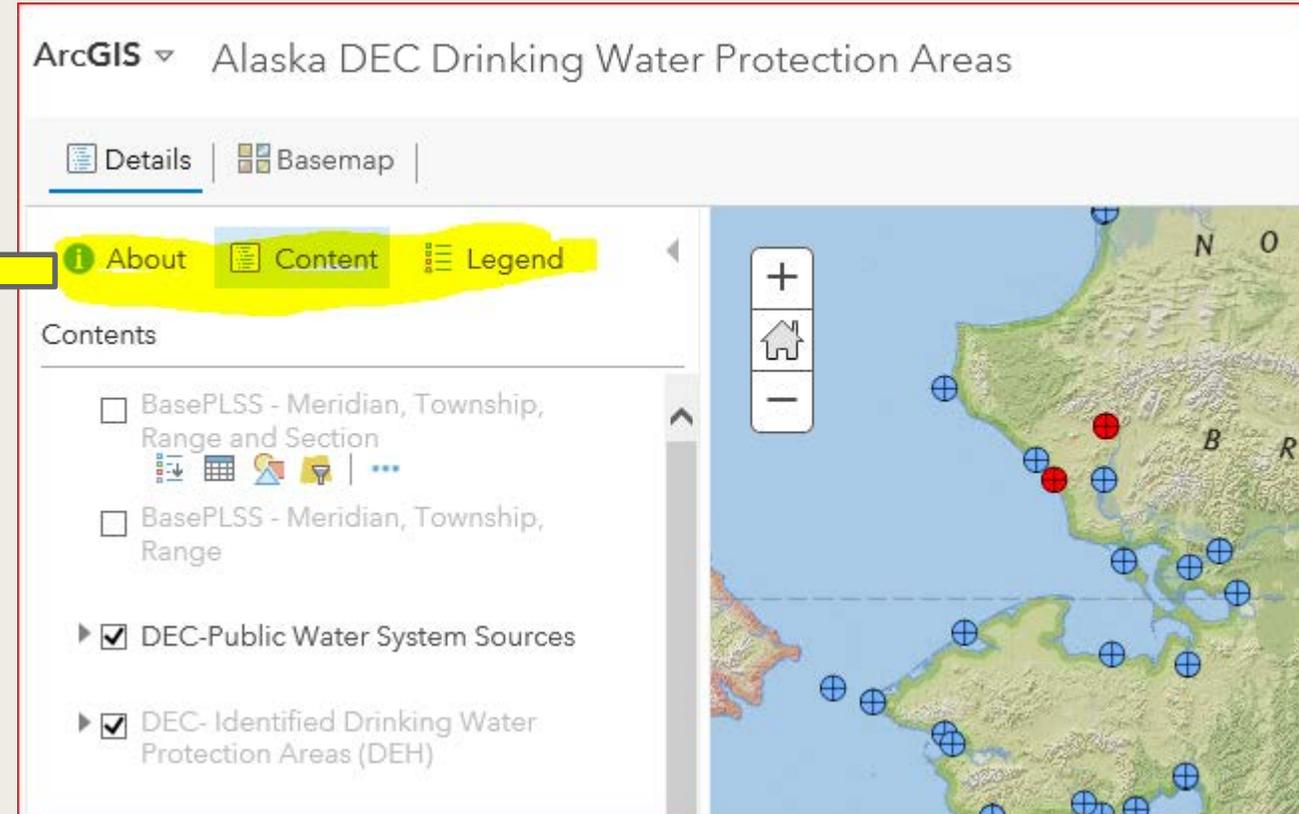
Map Layers

■ About - Content - Legend

- About: Basic info. and a link to full description (“More Details...”)
- Content: Can go here to turn layers ON/OFF
- Legend: Can show this for printing/copying



Note: The resolution of your monitor or page may remove the labels.





Map Layers (cont'd.)

- Visibility and scale-dependencies
 - Layers at top draw over those below
 - Checked = will draw (when at right scale)
 - Gray = Not visible until zoomed in to right scale
- DEC data
 - Includes layers from DEC Divisions and Programs
- DNR data
 - Locations of Water Rights/Reservations
 - Well log locations
 - PLSS* grid (Meridian, Township, Range, Section)
- Imagery base layers
 - Best imagery depends on region
- Other basemaps
 - Always at bottom of Content list and drawn underneath other layers
 - Default: Bing Maps Hybrid (imagery with labels)
 - **IMPORTANT:** Once this is switched, lose access to Bing Maps until restarted/refreshed
- Can add/remove layers (advanced)

*PLSS = Public Land Survey System

The screenshot shows a web map interface with a 'Contents' panel on the left and a 'Basemap' selection dialog on the right. The 'Contents' panel lists various map layers with checkboxes, including 'BasePLSS - Meridian, Township, Range and Section', 'DEC-Public Water', 'DEC-Identified D (DEH)', 'DEC-Contaminat', 'DEC-Priority Impa', 'DEC-Impaired W', 'DEC-Solid Waste', 'DEC-Wastewater', 'DEC-Seafood Pro', 'DNR-Well Log Tr', 'DNR-WaterEstate', 'Imagery-DCRA A', and 'Imagery-DCRA Aerial Imagery 0.5 - 1 ft'. The 'Basemap' dialog is titled 'Select a basemap' and displays a grid of 12 basemap options: Imagery, Imagery with Labels, Streets, Topographic, Dark Gray Canvas, Light Gray Canvas, National Geographic, Oceans, Terrain with Labels, OpenStreetMap, USA Topo Maps, and USGS National Map. The 'Basemap' button in the dialog is highlighted.



Map Layers (cont'd.)

■ Add/remove layers (advanced)

Modify Map Sign In

Remove Layer

- ☑ DEC-Priority Impaired Waters
 - ☑ Zoom to
 - ☑ Transparency
 - ☑ Set Visibility Range
 - ☐ Rename
 - ☑ Move up
 - ☑ Move down
 - ☑ Copy
 - ☑ Hide in Legend
 - ☑ Remove
 - ☑ Refresh Interval
 - ☑ Move to Basemap
 - ☑ Description

Add Layer

Details + Add Basemap

- Search for Layers
- Browse Living Atlas Layers
- Add Layer from Web
- Add Layer from File
- Add Map Notes

ArcGIS Online

alaska native

633 layers

Alaska Native Regional Corporations
by Federal_User_Community
Updated: 11/15/18

DATA Alaska Native Languages Boundaries



Searching Map: **Bookmarks**

The screenshot shows the ArcGIS web interface for "Alaska DEC Drinking Water Protection Areas". The top navigation bar includes "ArcGIS", "Alaska DEC Drinking Water Protection Areas", "Modify Map", and "Sign In". Below this is a toolbar with "Details", "Basemap", "Share", "Print", "Measure", and "Bookmarks" (which is highlighted). A search bar labeled "Find address or place" is also present.

On the left side, there is a "Legend" panel with the following sections:

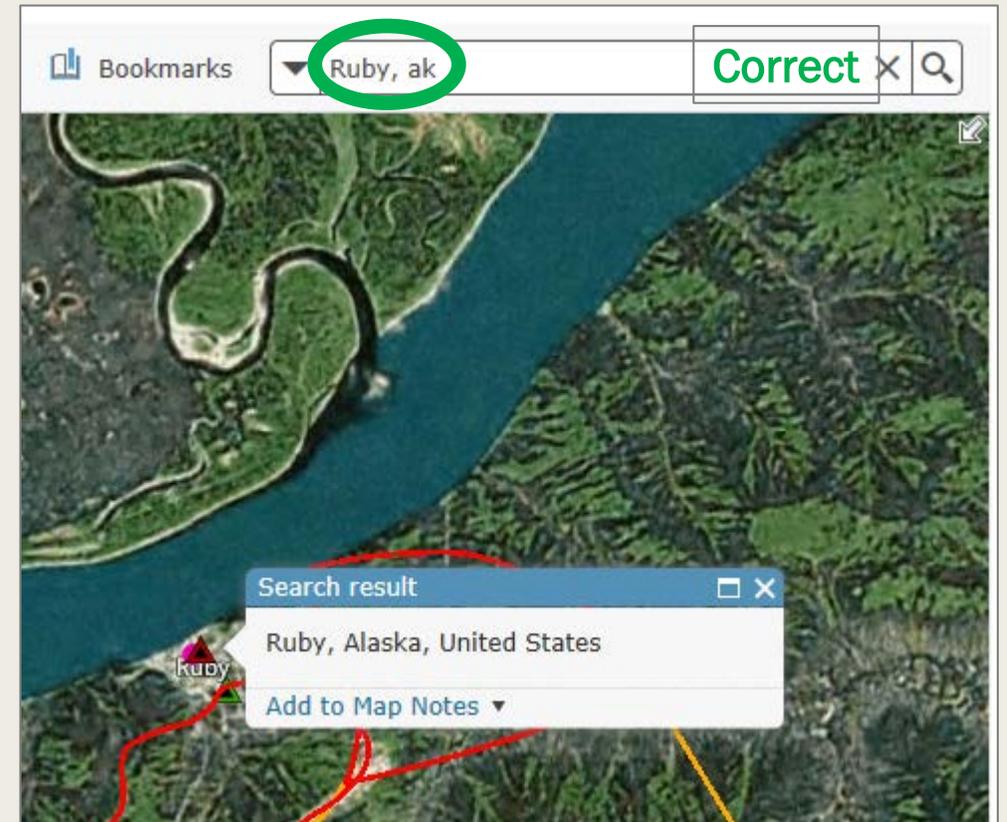
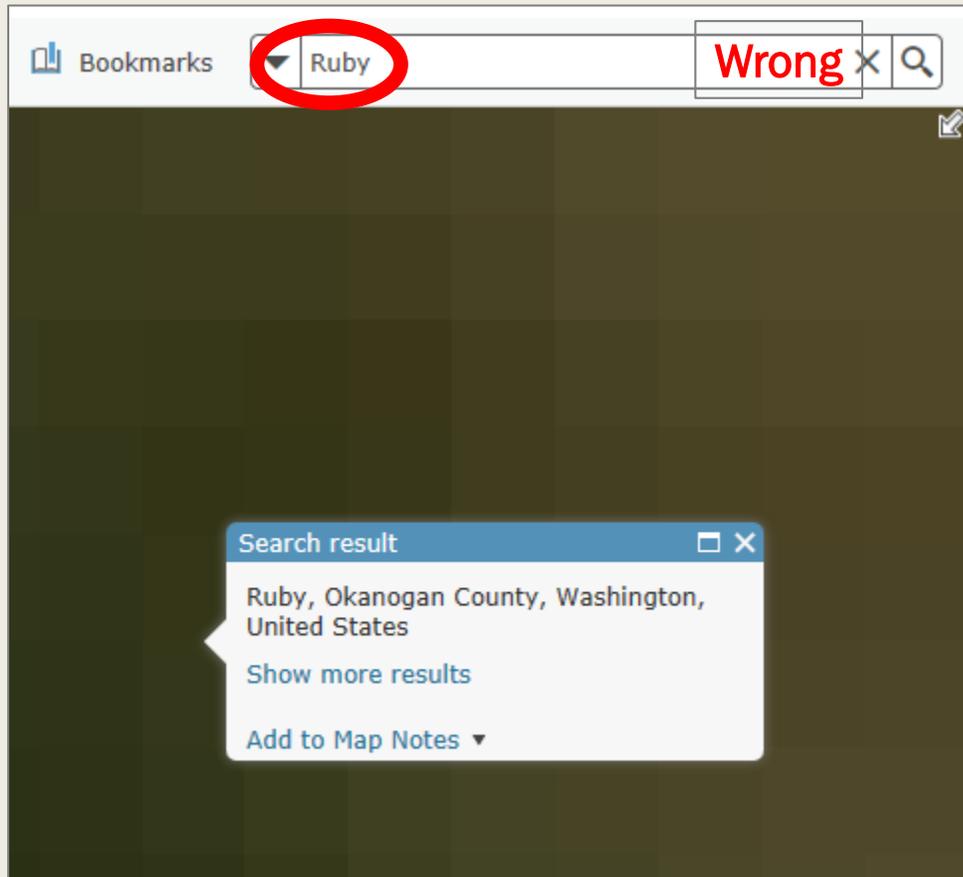
- DEC-Public Water System Sources**
 - Active Public Water System Source Locations Layer
 - Community Water System (C) (blue circle with a cross)
 - Non-Transient Non-Community Water System (NTNC) (red circle)
 - Non-Community Water System (NC) (dark blue circle)
- DEC- Identified Drinking Water Protection Areas (DEH)**
 - Zone A (GW-Several Months Time of Travel or SW 1000 ft buffer) (red outline)
 - Zone B (GW-2 Yr Time of Travel or SW-1 mile buffer) (yellow outline)

The main map area shows a satellite view of a coastal region with various water protection zones overlaid. A "Bookmarked places" panel is open on the right, listing the following locations: Full Extent, Anchorage, Barrow, Bethel, Dillingham, Fairbanks, Haines, and Homer. The map shows several blue circles representing water system sources and red and yellow outlines representing protection zones. Labels on the map include "SAND LAKE", "TAKU", "ABBOTT-LEO", "MINNESOTA D...", "ARD H...", "SCENIC FOOTFILLS", "BASH...", "Glenn Hwy", and "Joint Base Elmendorf".



Searching Map: **By city/address**

- **Important:** Include “AK” in search (searches entire globe)

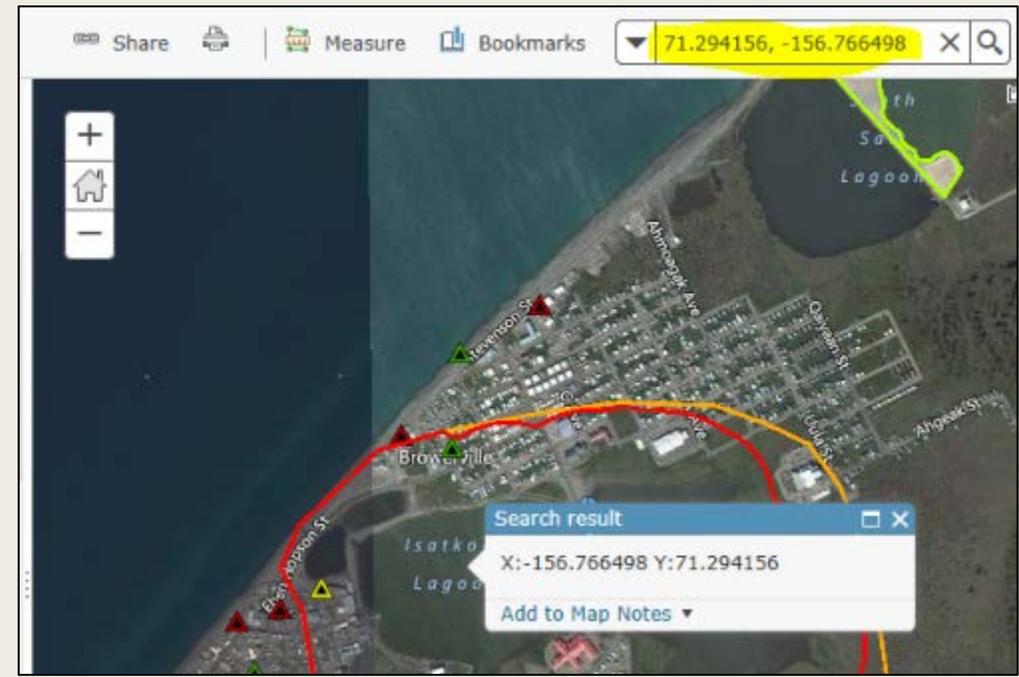
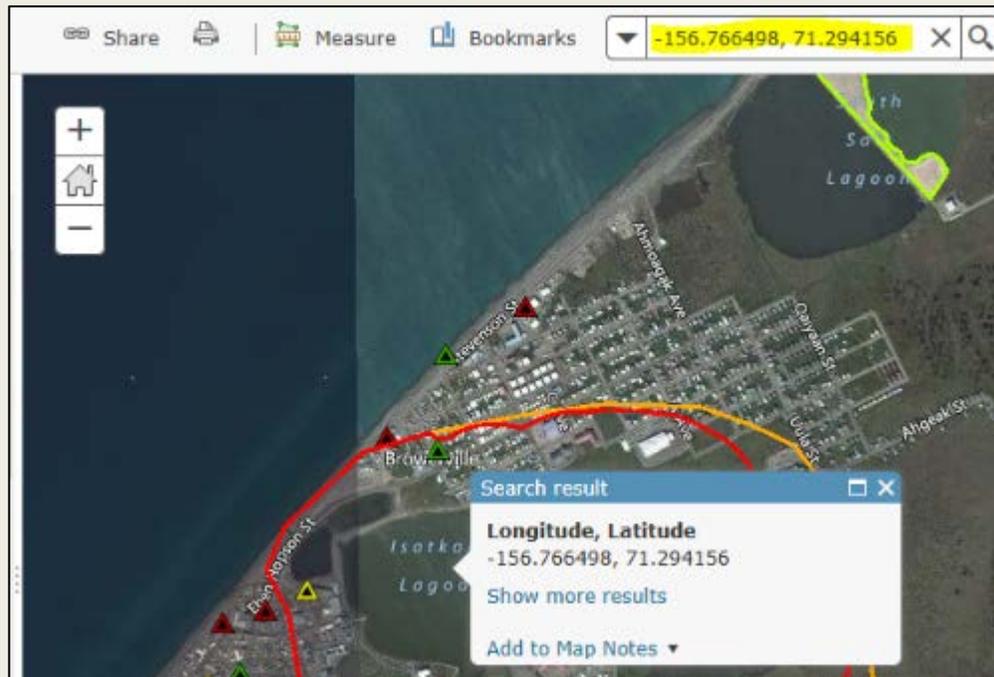




Searching Map: Latitude/Longitude

■ Format: Decimal Degrees (dd.ddddd)

- Must convert from other formats, like Degrees Minutes Seconds (example converter: <https://www.fcc.gov/media/radio/dms-decimal>).
- (-)longitude, latitude ↔ latitude, (-)longitude [either order will work]
- **Important:** Longitude is always west “negative (-)” in Alaska, except if passed the International Dateline, such as for Shemya.



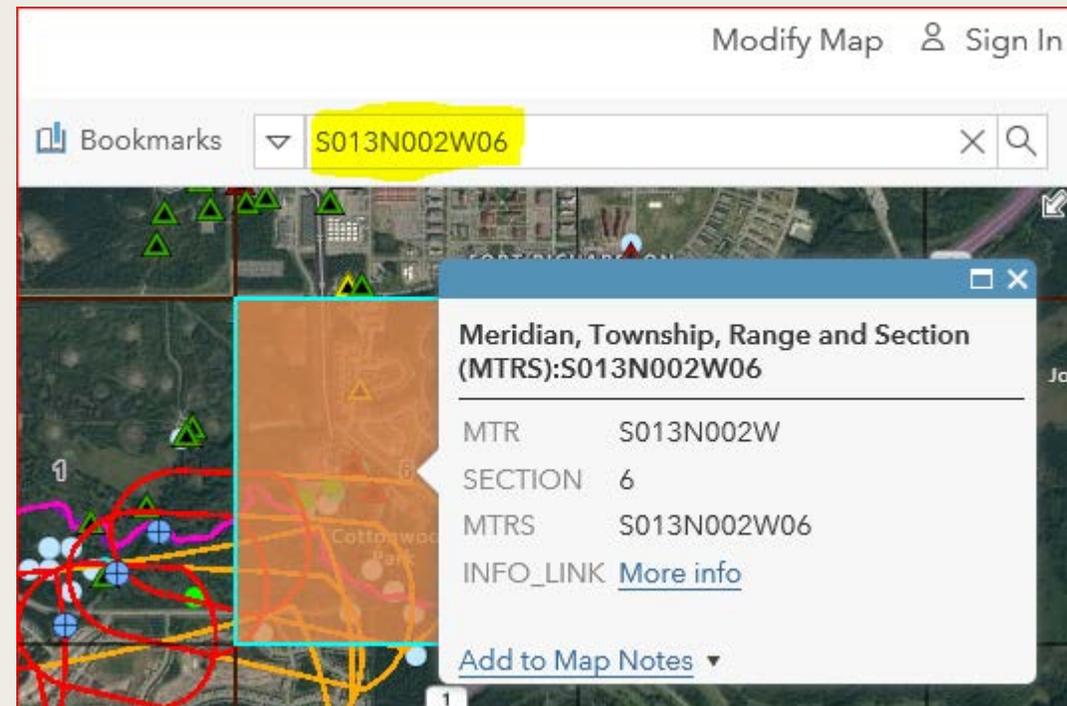


Searching Map: MTRS

- Searching: By PLSS* in **MTR**** or **MTRS***** (**must use exact format!**)
 - **M** = 1-letter meridian (ex. "S" = Seward Meridian)
 - **T** = 3-digit township + 1-letter cardinal direction (ex. "013N" = Township 13 North)
 - **R** = 3-digit range + 1-letter cardinal direction (ex. "002W" = Range 2 West)
 - **S** = 2-digit section (ex. "06" = Section 06)

MTR ex. *S013N002W*

MTRS ex. *S013N002W06*



*PLSS = Public Land Survey System
**MTR = Meridian, Township, Range
***MTRS = Meridian, Township, Range and Section



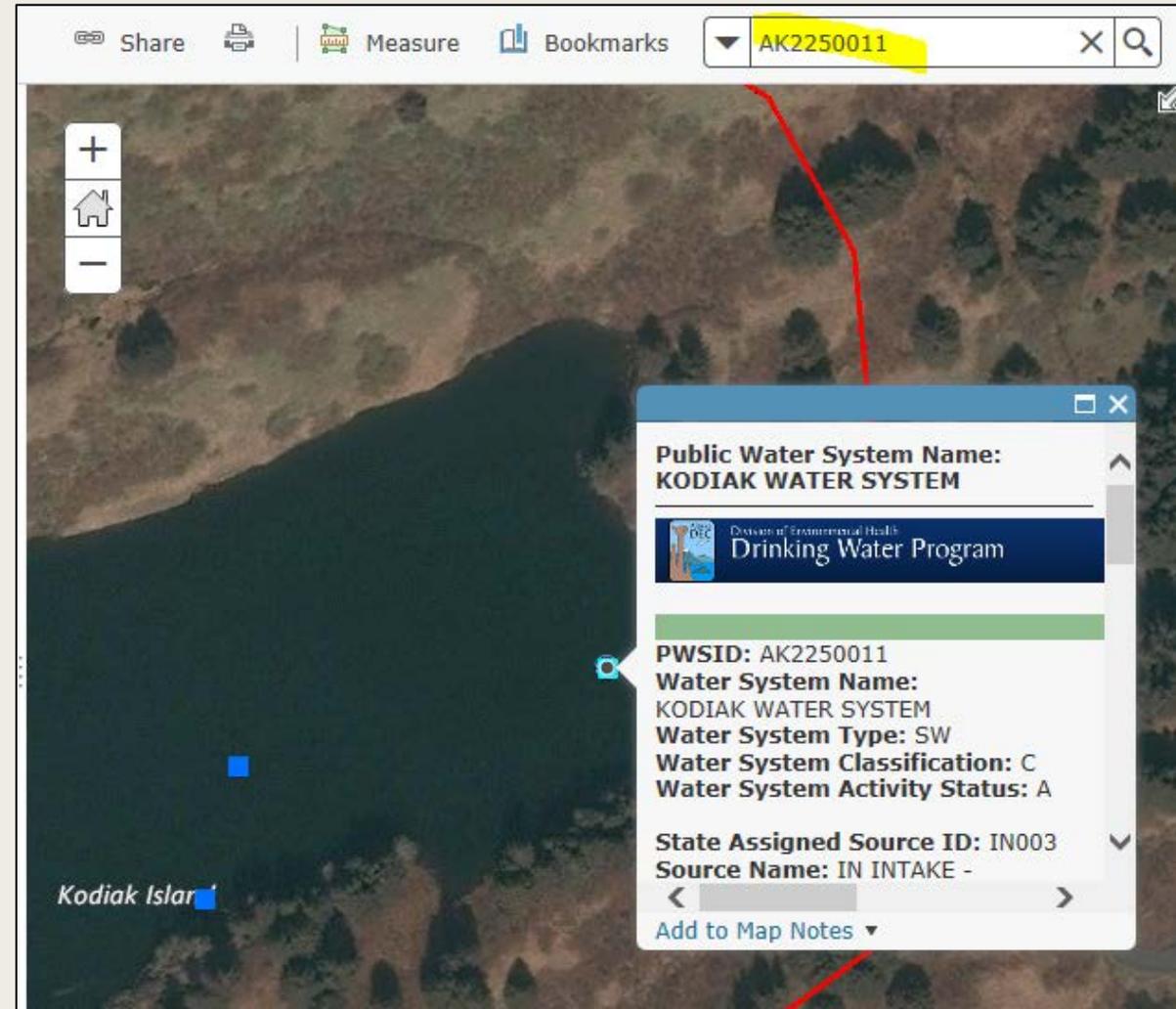
Searching Map: PWSID

- Searching: By PWSID (e.g. AK2250011)
 - “AK2” + 6-digit PWSID

AK2250011
└──┬──┬──┬──┬──┬──┬──┘
AK2 PWSID

Note: The “AK2” prefix is the same for all public water systems in Alaska. The 6-digit suffix is unique.

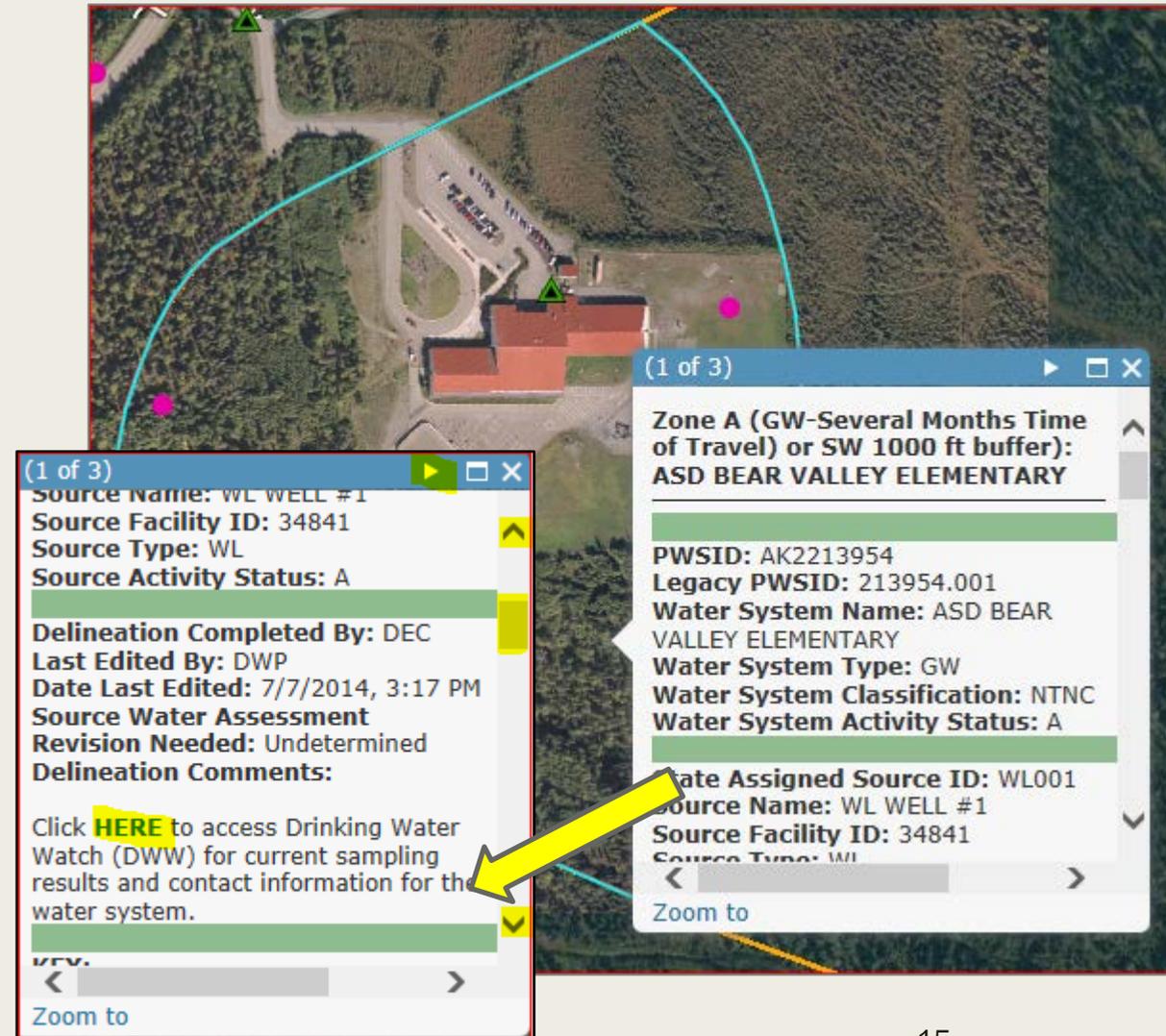
However, it is important when searching for a PWSID to include the “AK2” prefix.





Pop-Ups

- Pop-Ups
 - Use page-through arrow for multiple pop-ups
 - Ex. (1 of 3) means there are 3 pop-ups at the point that was clicked.
 - Scroll down (or expand) to see more pop-up info
- PWS info (e.g. AK2213954)
 - Key at bottom of pop-up
 - Classification: C = CWS*, ***not*** Class C
 - Activity: A = active.
 - This map only shows active PWS**.
 - Link to Drinking Water Watch (DWW)
 - For more detailed PWS info, such as PWS contact info and water quality results
 - Can also directly access DWW
 - <http://dec.alaska.gov/DWW/>



*CWS = Community Water System

**PWS = public water system



Pop-Ups (cont'd.)

Most layers in the map have pop-up information; many have links to reports and more detailed information.

- DEC Contaminated Sites – Link to Site Report
- DEC Priority Impaired Waters – Link to Total Maximum Daily Load (TMDL) Report
- DEC Solid Waste – Link to Facility Report
- DEC Wastewater Mixing Zones
- DEC Seafood Processing Facilities
- DNR Well Log Tracking System (WELTS) – Link to Well Log and Water Rights Case File (if available)
- DNR Water Estate (Water Rights/Reservations) – Link to Water Rights Case File



Filtering Data

- Ex. DEC-Public Water Systems: Filter by Federal Classification: i.e. Community [only]
- Ex. DEC-Public Water Systems: Filter by Federal Classification AND Water Type Code: i.e. “C” AND “GW”

Legend

DEC-Public Water System Sources

Active Public Water System Source Locations Layer

- Community Water System (C)
- Non-Transient Non-Community Water System (NTNC)
- Non-Community Water System (NC)

Filter: DEC-Public Water Systems Regional Scale

View Edit

+ Add another expression Add a set

Display features in the layer that match **All** of the following expressions

Federal_Classification is C

Ask for values

Water_Type_Code is GW

Value Field Unique

Ask for values

GW
GU
GW
SW

APPLY FILTER CLOSE

Before filter

After filter

3/29/2019

17



Measuring

Share | Print | Measure | Bookmarks | Find address or place

Area

Measure | Bookmarks | Find address

Find area, length, or location

Sq Miles

3,632.1 Sq Miles

- Acres
- Sq Miles
- Sq Kilometers
- Hectares
- Sq Yards
- Sq Feet
- Sq Feet (US)
- Sq Meters

Distance

Measure | Bookmarks | Find address

Find area, length, or location

Miles

101.1 Miles

- Miles
- Kilometers
- Feet
- Feet (US)
- Meters
- Yards
- Nautical Miles

Location

Measure | Bookmarks | Find address

Find area, length, or location

Degrees

Measurement Result

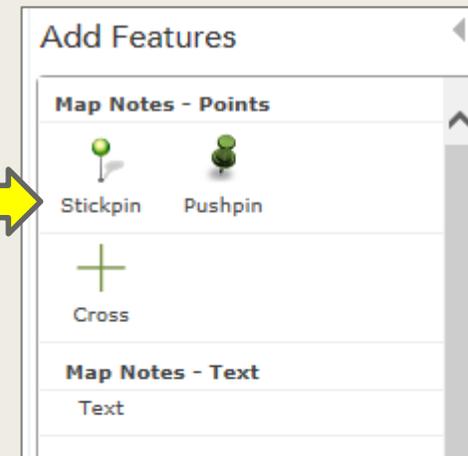
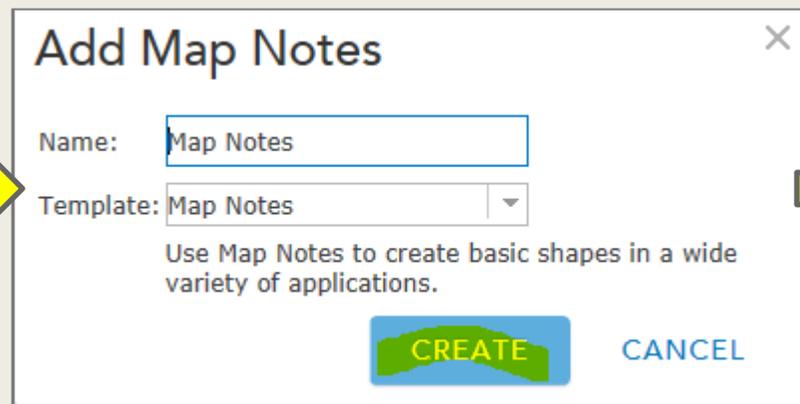
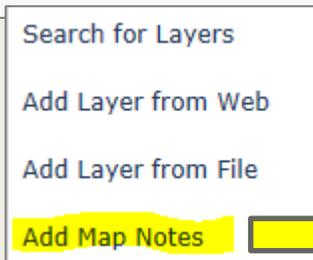
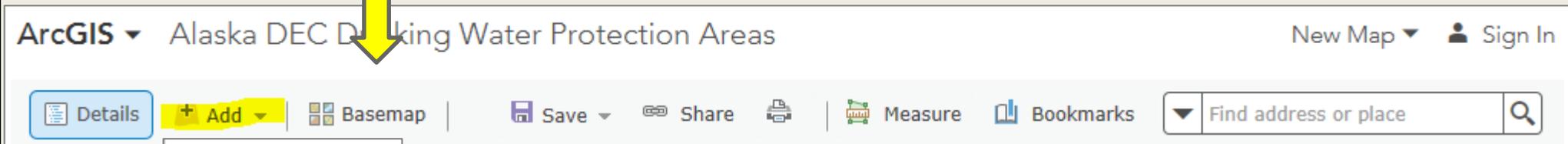
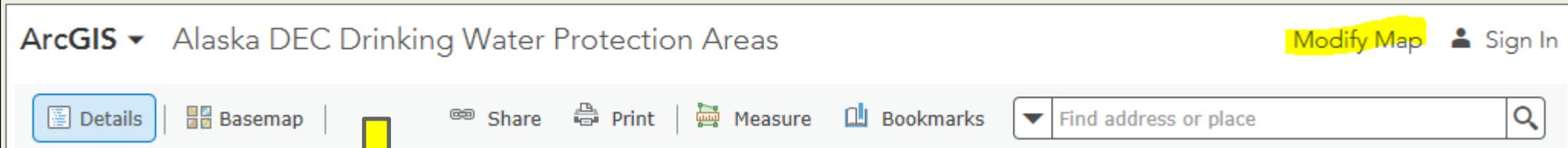
Latitude	Longitude
67.079582	-136.882821
64.277222	-148.132821



Adding Map Notes (graphics)

■ Modify Map

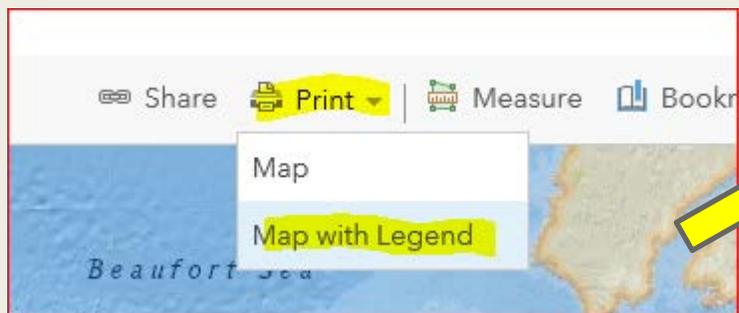
- Enables Map Notes tool for adding text, points, lines, areas, etc.
- ***IMPORTANT:*** Need an account in order to save/share changes; alternatively, copy to an editor.





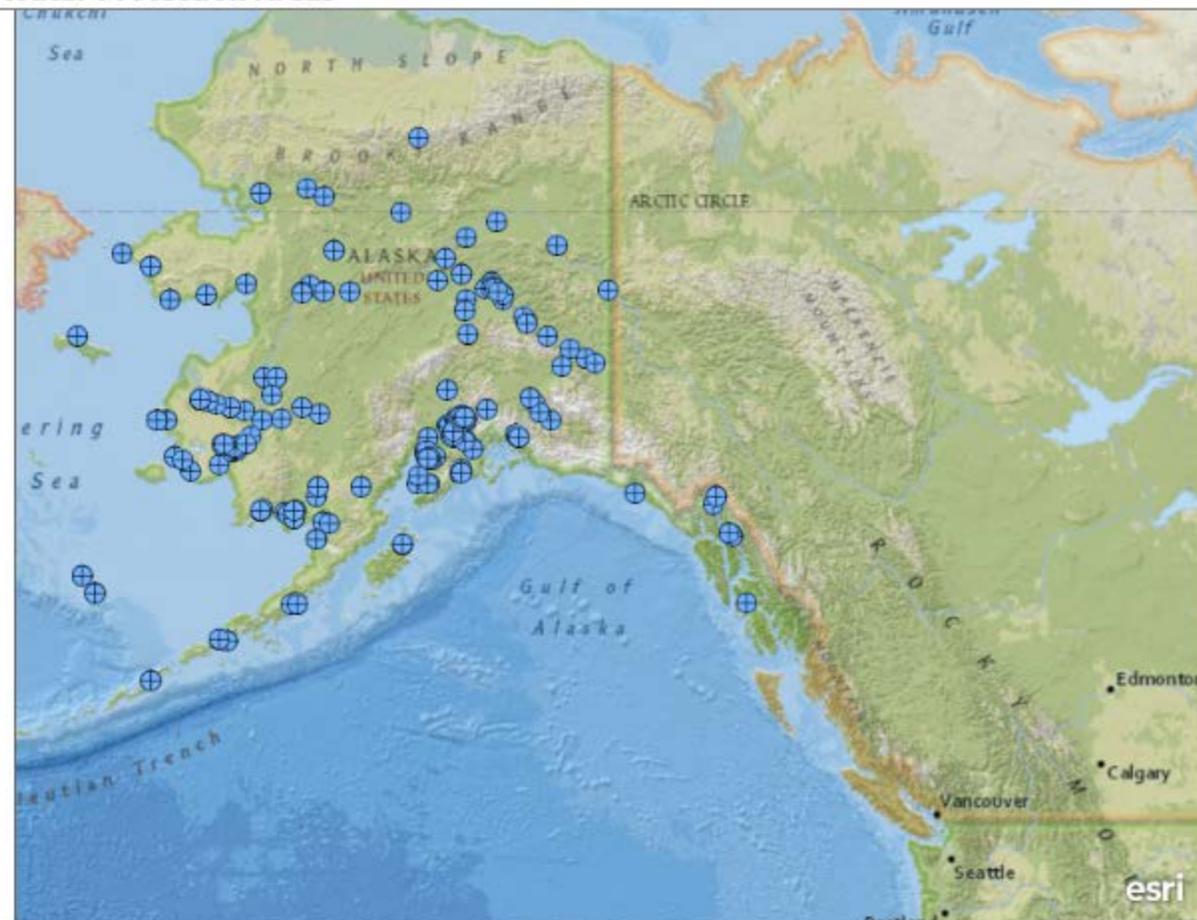
Printing Maps (default method)

- Default 'Print' button
 - *Can't add notes/labels*



Alaska DEC Drinking Water Protection Areas

- DEC-Public Water System Sources**
Active Public Water System Source Locations Layer
- Community Water System (C)
 - Non-Transient Non-Community Water System (NTNC)
 - Non-Community Water System (NC)



This map displays Public (regulated) Drinking Water Protection Areas and well/intake locations for known active public water systems. The data is continuously being revised.



Printing Maps (**preferred method**)

■ Screenshot method (**Preferred**)

- Legends can be slightly modified
- Can paste in an editor like PowerPoint to add labels/notes
- Example: MS Windows Snipping Tool

A composite screenshot illustrating the preferred method for printing maps. It shows a Windows desktop environment with the Start menu open, highlighting the "Snipping Tool" application. The web map interface is visible in the background, with several elements annotated with red boxes and yellow arrows:

- A red box highlights the "MODIFY MAP" button in the top navigation bar, with a yellow arrow pointing to it.
- A red box highlights the "Sign In" button next to it, with a yellow arrow pointing to it.
- A red box highlights the "Legend" tab in the map's interface.
- A red box highlights the "Contents" panel on the right side of the map, which lists various map layers. A yellow arrow points from the "MODIFY MAP" button to this panel.
- Within the "Contents" panel, a red box highlights the "Hide in Legend" option for the "DEC- Identified DW Protection Areas (DEH)" layer.
- A red box highlights the "Snipping Tool" window, which is open over the map interface. The tool's interface shows the "New" button and a message: "Drag the cursor around the area you want to capture."



Map Services

■ ArcGIS Services Directory

- Can view services as map layers in ArcGIS, Google Earth, etc.

The screenshot shows the Alaska Department of Environmental Conservation website. The navigation path is: Home > services > EH > SDWIS Facilities (MapServer). A yellow arrow points from the 'EH' folder in the 'Folders:' list to the 'EH' link in the breadcrumb trail. Another yellow arrow points from the 'EH' link in the breadcrumb trail to the 'EH/SDWIS Facilities (MapServer)' link in the 'Services:' list.

ArcGIS REST Services Directory
Home > services > EH
JSON | SOAP
Folder: EH
Current Version: 10.31
View Footprints In: [ArcGIS Online map viewer](#)
Services:

- EH/Boil Water Notice (MapServer)
- EH/Drinking Water Protection Areas (MapServer)
- EH/DWP Office Locations (MapServer)
- EH/DWP Regions (MapServer)
- EH/Fish Tissue Sample Sites (MapServer)
- EH/Fishing Areas (MapServer)
- EH/Fishing Regions (MapServer)
- EH/JTMD Aerial Surveys (MapServer)
- EH/JTMD Cleanup Projects (MapServer)
- EH/Maximum Nitrate Levels (MapServer)
- EH/Salmon by Site (MapServer)
- EH/SDWIS Facilities (MapServer)
- EH/Solid Waste Sites (MapServer)
- EH/WEAR Site Erosion (MapServer)
- EH/WEAR Sites (MapServer)

ArcGIS REST Services Directory
Home > services > EH > SDWIS Facilities (MapServer)
JSON | SOAP
EH/SDWIS Facilities (MapServer)
View Footprint In: [ArcGIS JavaScript](#) [ArcGIS Online map viewer](#) [Google Earth](#) [ArcMap](#)
View Footprint In: [ArcGIS Online map viewer](#)
Service Description: Data displays Alaska's active public water system (PWS) sources of Environmental Conservation's (ADEC) Safe Drinking Water Information Systems
Supported Interfaces: [REST](#) [SOAP](#) [Sitemap](#) [Geo Sitemap](#)



Open Data

■ Open Data Site

A screenshot of the Alaska Department of Environmental Conservation's Geographic Information Systems (GIS) website. The header includes the department's logo and the text "Alaska Department of Environmental Conservation GEOGRAPHIC INFORMATION SYSTEMS". A search bar is visible on the right. The navigation menu contains links for "ABOUT OUR GIS", "ARCGIS SERVICES DIRECTORY", "MAPPING LINKS", "OPEN DATA" (highlighted in green), and "WEB MAPS". Below the menu, a breadcrumb trail reads "You Are Here: DEC / DAS / GIS / DEC Web Maps".

A large graphic with a background image of a forest and a lake. The text reads "Alaska Department of Environmental Conservation" in large, bold, blue letters. Below this, it says "Open Data Site" and "Scroll down" with a yellow arrow pointing downwards.

A screenshot of the "Explore GIS Data Categories by Division" section. It features five icons representing different data categories: Air Quality, Environmental Health (circled in yellow), Spill Prevention & Response, Water Quality, and another category. A yellow arrow points from the "OPEN DATA" link in the previous screenshot to this section.

A screenshot of the "Alaska DEC SDWIS Facilities" data layer information. It shows the title "Alaska DEC SDWIS Facilities" and the provider "Alaska Department of Environmental Conservation | adecadmin". A description states: "Data displays Alaska's active public water system (PWS) source locations for WL (well), IN (intake), SP (spring), IG (infiltration gallery), and RC (rain catchment)". Metadata includes "Type: Feature Layer", "Last Updated: May 10, 2018", "Rows: 1,607", and "Tags: ADEC, Drinking Water Protection, DWP,...". A yellow arrow points from the "Environmental Health" icon in the previous screenshot to this data layer.

A screenshot of the "Alaska DEC SDWIS Facilities" data layer download options. The "Data" tab is selected. A "Download" button is highlighted in green, and its dropdown menu is open, showing options: "Full Dataset", "Spreadsheet", "KML", and "Shapefile". Other buttons include "Favorite", "APIs", and "Custom License". A yellow arrow points from the "More" link in the previous screenshot to this download menu.

Basic instructions: <http://dec.alaska.gov/media/14954/dwp-dec-dw-public-web-map-instructions.pdf>

Web maps: <http://dec.alaska.gov/das/gis/apps.htm>

End of Presentation

Contact:

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