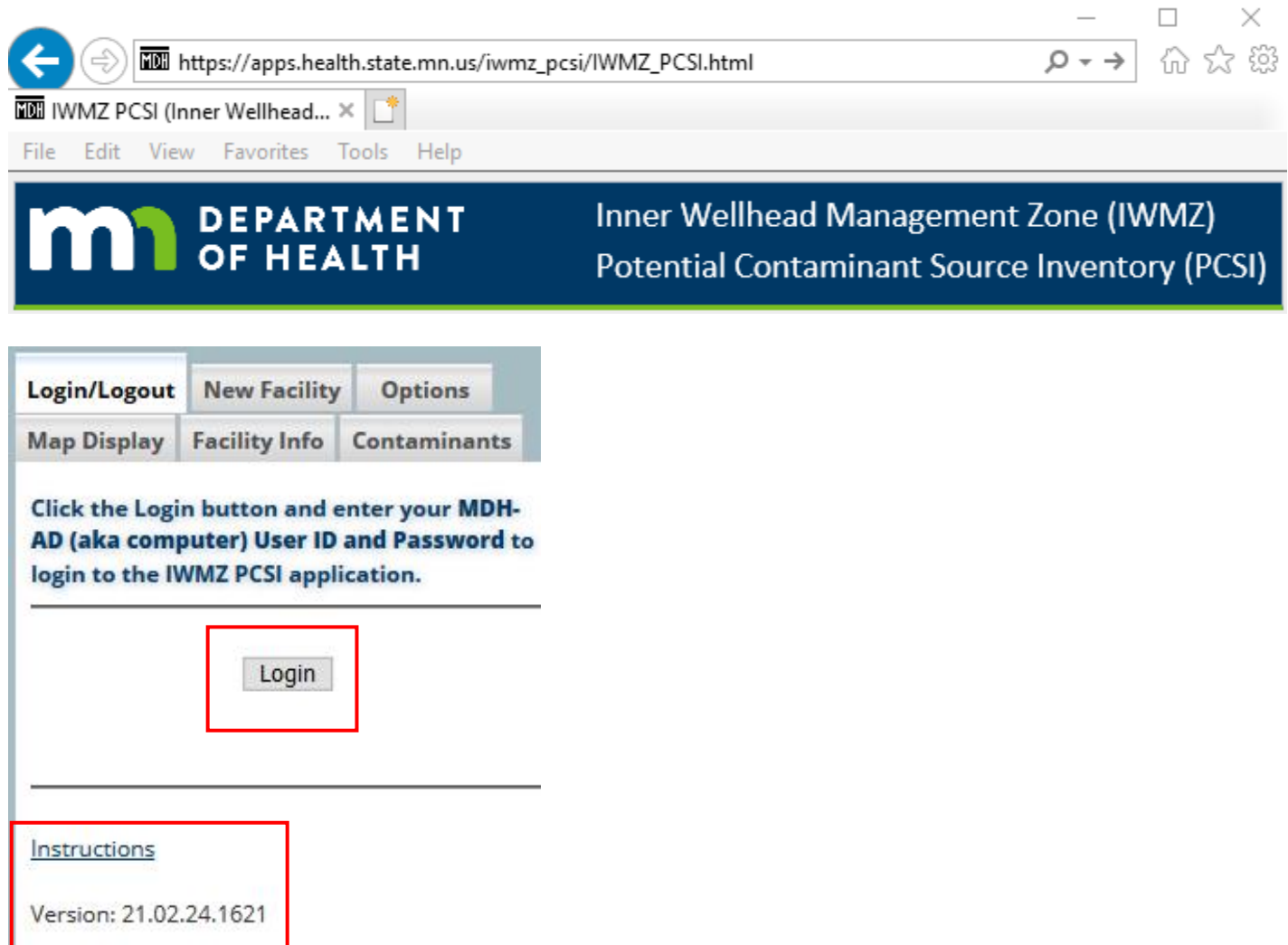


Instructions for using the MDH Inner Wellhead Management Zone Potential Contaminant Source Inventory (IWMZ PCSI) web browser data entry application.
Last updated February 25, 2021.

LOGGING IN

To begin, open your web browser, and go to the following web site:
https://apps.health.state.mn.us/iwmz_pcsi/IWMZ_PCSI.html.

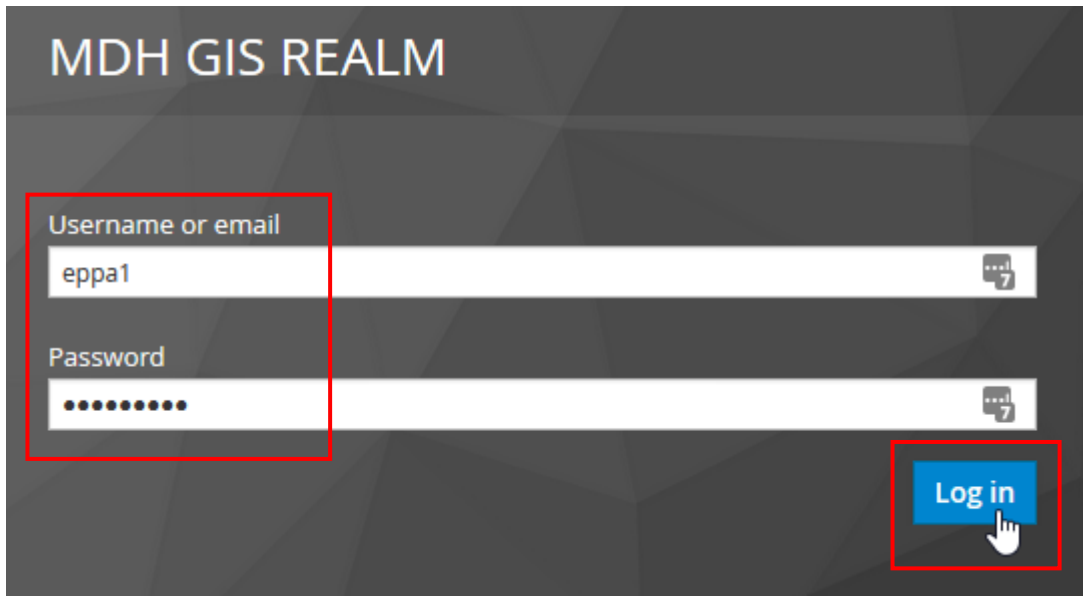


Click the Login button to open the login page.

NOTE: the **Instructions** link opens up this PDF document, and the current version of this application is also shown.

LOGGING IN (continued)

On the **MDH GIS Realm** page, enter your **MDH-AD (aka computer) Username and Password** and click the **Log in** button to login to the IWMZ PCSI application.

The image shows the login interface for the MDH GIS REALM application. The title "MDH GIS REALM" is at the top left. Below it are two input fields: "Username or email" containing the text "eppa1" and "Password" containing ten dots. Both fields have a small icon with the number "7" on the right. A red rectangle highlights the username and password fields. At the bottom right, there is a blue "Log in" button with a white hand cursor icon pointing at it. A red rectangle also highlights the "Log in" button.

NOTE: There is no session time limit for this application, but if you navigate away from this web page and try to return to it using the back arrow you will have to log in again.

SELECTING A WELL / FACILITY TO WORK WITH

Once you've logged in, the following page will appear. Type in the PWS ID and Sample Point ID OR the Unique Well Number of the facility you want to work with and click the **Search** button.

Login/LogoutNew FacilityOptions

Map DisplayFacility InfoContaminants

Work with a New Facility (Well)
Enter the PWS ID and Sample Point ID OR the Unique Well Number for the source you want to work with and click the Search button.

PWS ID:5180746

Sample Point ID: S1

OR

Unique Well Number:

Search

Next Map Action: Identify non-IWMZ PCSI features on map

20m100ft

POWERED BY
esri

3

AVAILABLE OPTIONS

At this point you can add a new IWMZ PCSI point, select an existing IWMZ PCSI point, view or edit the Facility Information, modify which layers to show on the map, change the map scale, generate PDF files of the IWMZ PCSI report and well location maps, choose a different facility to work with, or log out of the application.

The following pages show examples of how to perform these functions.

Login/LogoutNew FacilityOptionsMap DisplayFacility InfoContaminantsAddSelectAdjustDeleteArchive


Contaminant Class:

Contaminant Type:

Distance from well: feet
☐ Distance Estimated (red triangles)
☐ Uncertain PCSI Type (larger symbol)
☐ Only show Score for features NOT meeting setbacks.

Show Score Summary

Unique Well#: 263528 PWS ID / Sample Point ID: 5180746 S01
Name: Brainerd International Raceway & Resort #1-IFV
Next Map Action: Identify non-IWMZ PCSI features on map



4

ADDING A NEW IWMZ PCSI POINT

When you click the **Add** button the **ADD NEW POTENTIAL CONTAMINANT LOCATION** panel will appear. Scroll through the list to select the desired PCSI type, enter in a distance from the well, and, if appropriate, check whether or not the distance is estimated and if you are uncertain of the contaminant type. Click the **OK** button when you are ready to add a new point. Click the **Cancel** button if you don't want to add a new point.

ADD NEW POTENTIAL CONTAMINANT LOCATION X

Select the Potential Contaminant Type, enter the Distance from the well, and click OK:

Distance from well: 205 feet

☒ Distance Estimated (red triangles)

☐ Uncertain PCSI Type (larger symbol)

OK Cancel

LAND APPLICATION

SPT - Land spreading area for sewage, septage, or sludge

=====

SOLID WASTE RELATED

COS - Commercial compost site

CD1 - Construction or demolition debris disposal area

HW1 - Household solid waste disposal area, single residence

LF1 - Landfill, permitted demolition debris, dump, or mixed municipal solid waste from multiple persons

SVY - Scrap yard

SWT - Solid waste transfer station

=====

STORM WATER RELATED

SD1 - Storm water drain pipe, 8 inches or greater in diameter

SWI - Storm water drainage well (Class V well - illegal)

SM1 - Storm water pond greater than 5000 gal.

=====

WELLS AND BORINGS

EB1 - Elevator boring, not conforming to rule

EB2 - Elevator boring, conforming to rule

MON - Monitoring well

ADDING A NEW IWMZ PCSI POINT (continued)

You are now ready to add your new PCSI point. Simply click on the map where the new potential contaminant source is located. Your new PCSI point will appear as a point surrounded by a yellow box (see next page).

Login/LogoutNew FacilityOptions

Map DisplayFacility InfoContaminants

AddSelectAdjust

DeleteArchive

Contaminant Class:

O - Solid Waste Related

Contaminant Type:

LF1 - Landfill, permitted demolition debris, dump, or mixed municipal solid waste from multiple persons

Distance from well: 205 feet

☒ Distance Estimated (red triangles)

☐ Uncertain PCSI Type (larger symbol)


☐ Only show Score for features NOT meeting setbacks.

Show Score Summary

Unique Well#: 263528 PWS ID / Sample Point ID: 5180746 S01

Name: Brainerd International Raceway & Resort #1-IFV

Next Map Action: Click on Map to Add New PCSI point



6

ADDING A NEW IWMZ PCSI POINT (continued)

Once you've added your new point, additional information about it will appear in the lower left panel. At this time you can delete or archive this point, or adjust and/or edit it by changing the distance from the well, changing whether or not the distance was estimated, and/or changing whether or not you are uncertain of the PCSI type. Make these changes as needed and then click the correct location on the map to update this point.

Login/LogoutNew FacilityOptions

Map DisplayFacility InfoContaminants

AddSelectAdjust

DeleteArchive

Contaminant Class:
O - Solid Waste Related

Contaminant Type:
LF1 - Landfill, permitted demolition debris, dump, or mixed municipal solid waste from multiple persons

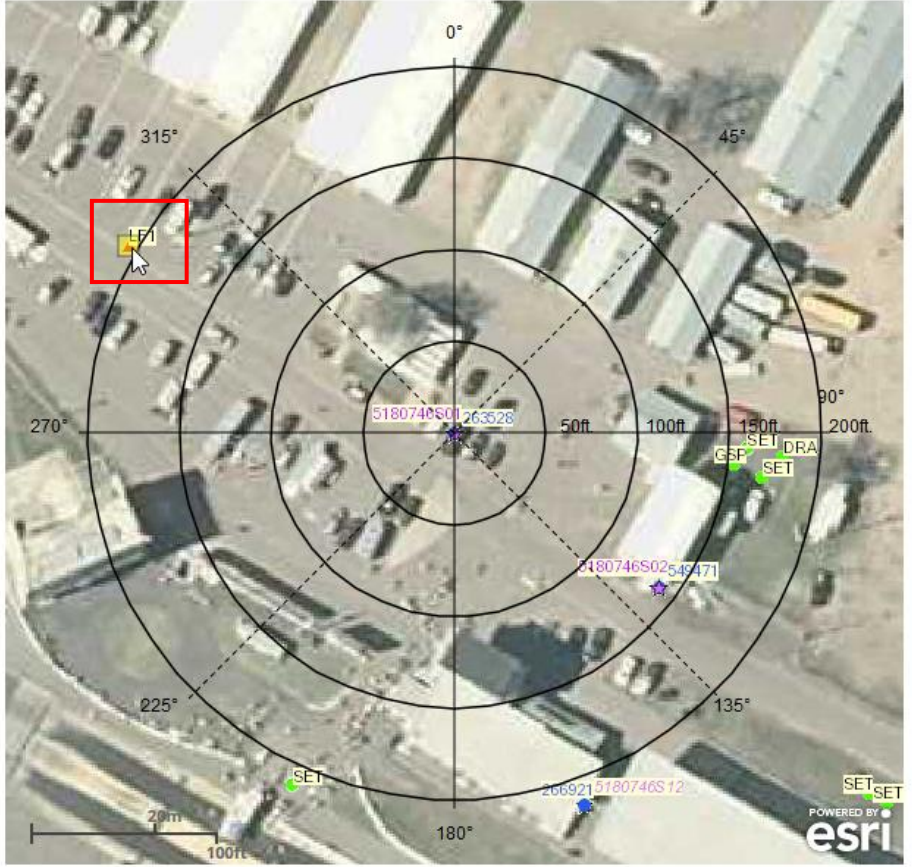
Distance from well: 205 feet
☒ Distance Estimated (red triangles)
☐ Uncertain PCSI Type (larger symbol)
☐ Only show Score for features NOT meeting setbacks.

Potential Contaminant Score = 1076

Show Score Summary

This Feature was last edited relative to:
PWS ID / Sample Point ID: 5180746S01
Unique Well #: 263528
Distance (ft.): 205 Bearing (deg.): 300
by: Epp, AI
Date: 10/6/2017

Unique Well#: 263528 PWS ID / Sample Point ID: 5180746 S01
Name: Brainerd International Raceway & Resort #1-IFV
Next Map Action: Click on Map to Edit/Adjust PCSI point



SELECTING AN EXISTING IWMZ PCSI POINT

To select an existing IWMZ PCSI point, click the **Select** button. The **Next Map Action:** text directs you to click on the map to select the desired PCSI point (if you currently have a selected point it will stay selected until you click on the map).

Login/LogoutNew FacilityOptions

Map DisplayFacility InfoContaminants

AddSelectAdjust

DeleteArchive

Contaminant Class:
O - Solid Waste Related

Contaminant Type:
LF1 - Landfill, permitted demolition debris, dump, or mixed municipal solid waste from multiple persons

Distance from well: 205 feet

☒ Distance Estimated (red triangles)

☐ Uncertain PCSI Type (larger symbol)

☐ Only show Score for features NOT meeting setbacks.

Potential Contaminant Score = 1076

Show Score Summary

This Feature was last edited relative to:

PWS ID / Sample Point ID: 5180746S01

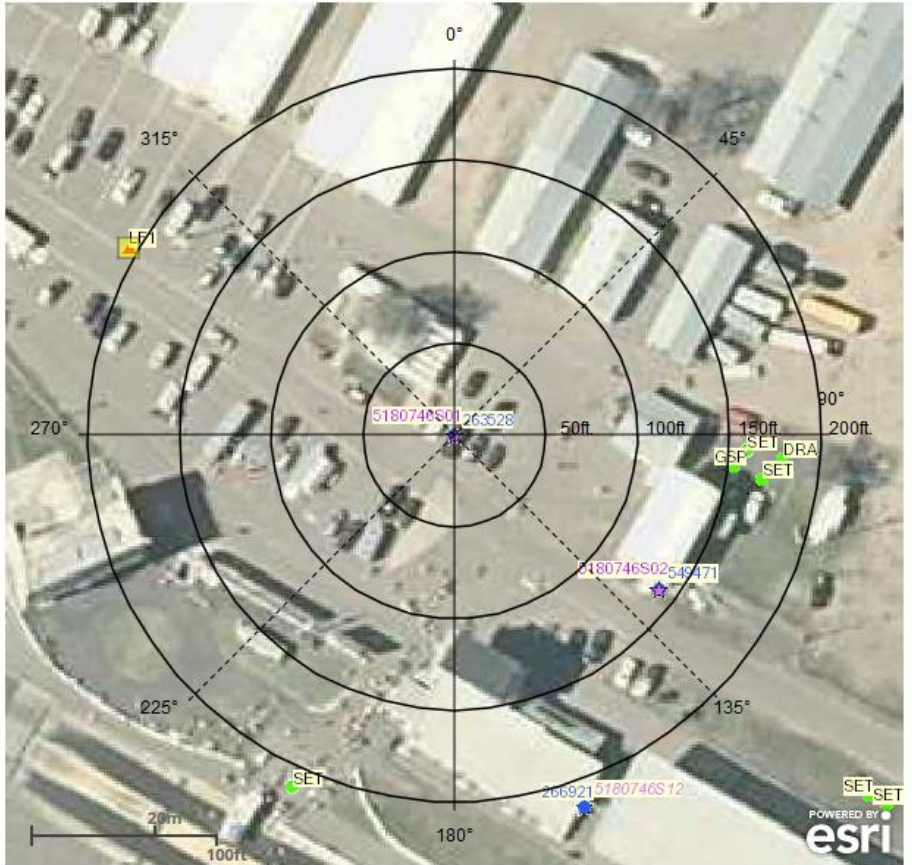
Unique Well #: 263528

Distance (ft.): 205 Bearing (deg.): 300

by: Epp, Al

Date: 10/6/2017

Unique Well#: 263528 PWS ID / Sample Point ID: 5180746 S01
Name: Brainerd International Raceway & Resort #1-IFV
Next Map Action: Select PCSI Point



SELECTING AN EXISTING IWMZ PCSI POINT (continued)

When you select a point on the map, that point is surrounded by a yellow box and the left hand panel is filled in showing the Contaminant Class and Type in addition to other information about the point. The **Adjust**, **Delete**, and **Archive** buttons also become enabled allowing you to adjust, delete or archive this point (see page 11), and the **Show Score Summary** button also becomes enabled (see page 11).

Login/LogoutNew FacilityOptions

Map DisplayFacility InfoContaminants

AddSelectAdjustDeleteArchive

Contaminant Class:
O - Solid Waste Related


Contaminant Type:
LF1 - Landfill, permitted demolition debris, dump, or mixed municipal solid waste from multiple persons

Distance from well: 205 feet
☒ Distance Estimated (red triangles)
☐ Uncertain PCSI Type (larger symbol)
☐ Only show Score for features NOT meeting setbacks.

Potential Contaminant Score = 1076
Show Score Summary

This Feature was last edited relative to:
PWS ID / Sample Point ID: 5180746S01
Unique Well #: 263528
Distance (ft.): 205 Bearing (deg.): 300
by: Epp, Al
Date: 10/5/2017

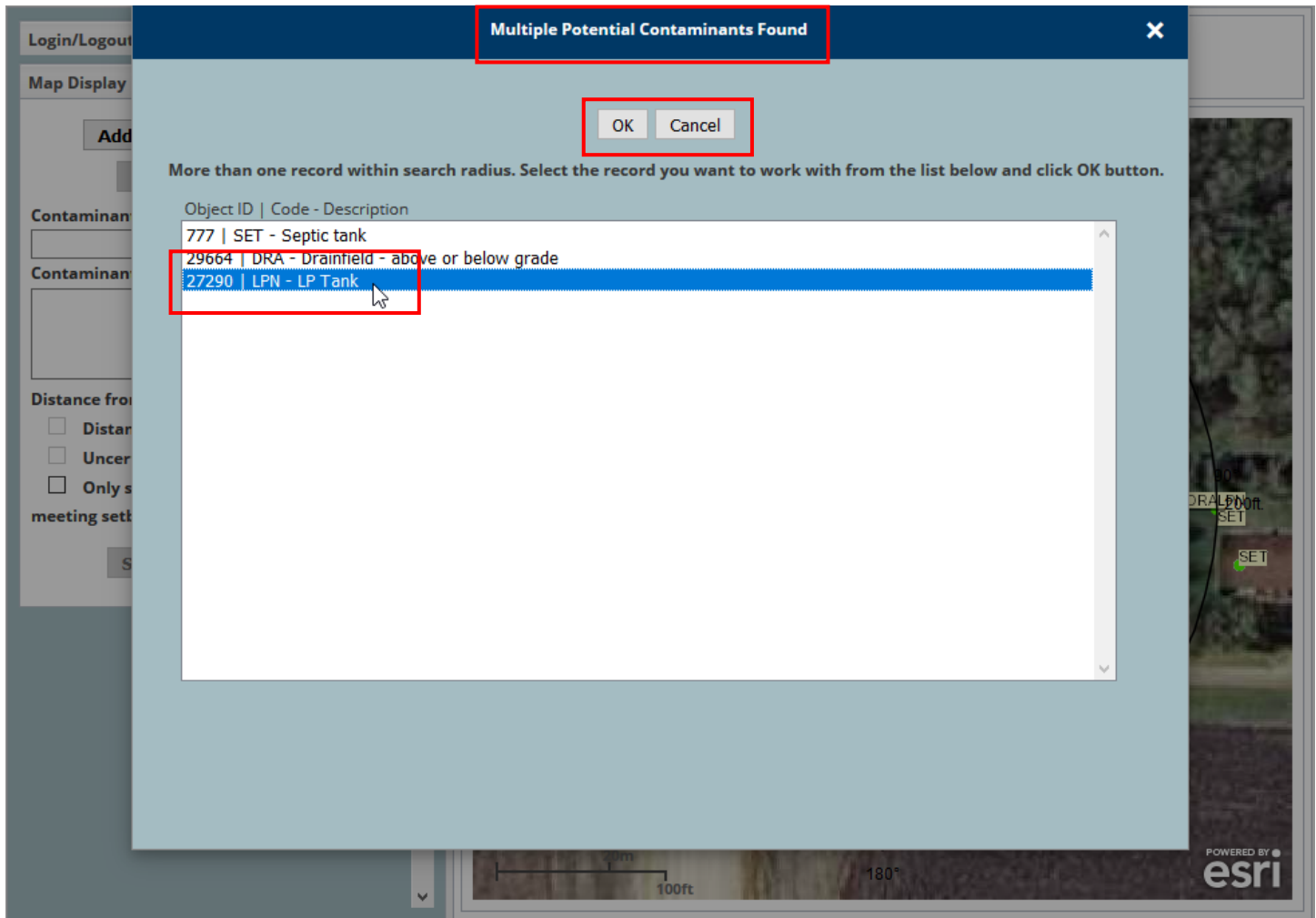
Unique Well#: 263528 PWS ID / Sample Point ID: 5180746 S01
Name: Brainerd International Raceway & Resort #1-IFV
Next Map Action: Click on Map to Edit/Adjust PCSI point



9

SELECTING AN EXISTING IWMZ PCSI POINT (continued)

In the event that there is more than one IWMZ PCSI record at or near where you clicked on the map the **Multiple Potential Contaminants Found** panel will appear showing you those records and allowing you to select a particular one. Select the record you want to work with and click the **OK** button. Click the **Cancel** button to select none of these records.



VIEWING THE SCORE SUMMARY

The **Potential Contaminant Score Summary (READ-ONLY)** panel appears when you click on the **Show Score Summary** button. This panel shows information about the well and provides a breakdown of how the score summary for this potential contaminant source was calculated. Click any of the ? buttons to provide help for a specific value, and click the X button in the upper right corner to return to the mapping application.

Potential Contaminant Score Summary (READ-ONLY)

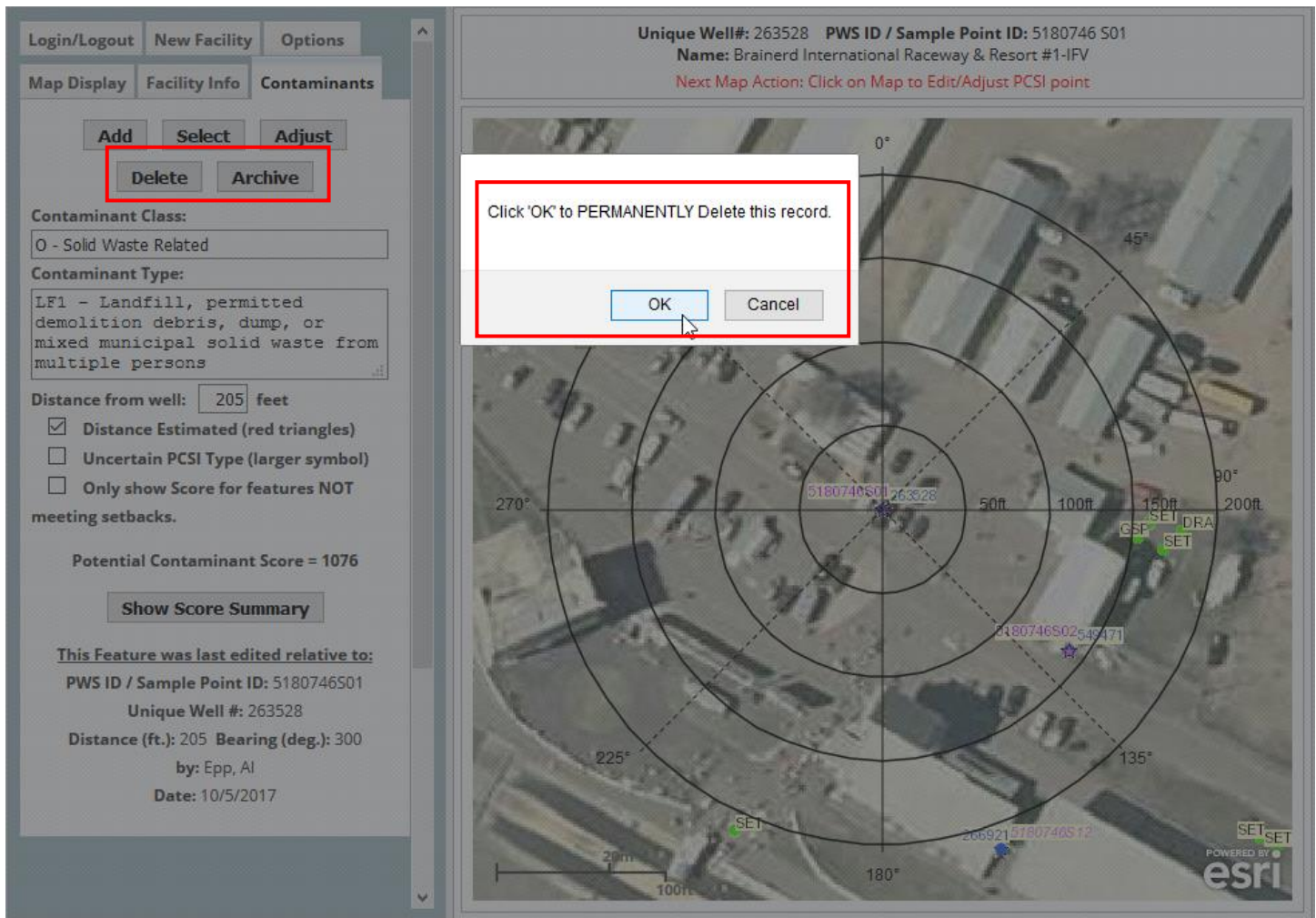
PCSI Type = LF1 Minimum Distance (feet) = 300
Aquifer Type = Sensitive Well Distance (feet) = 600
Violation Check Distance (feet) = 600
PRIORITY LEVEL = 2 ?

POTENTIAL CONTAMINANT SCORE

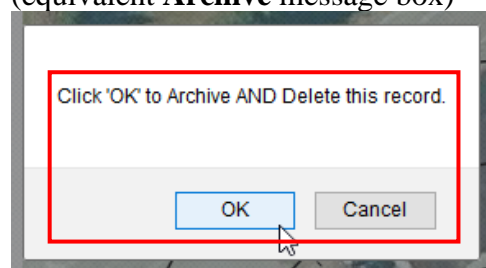
Potential Pathogens = 10 ?
Potential Fuel = 0 ?
Potential Chemicals = 10 ?
Total Potential Toxicity = 20 ?
Well Proximity = 996 ?
PWS Well Construction Sensitivity = 20 ?
PWS Well Aquifer Sensitivity = 40 ?
Total Potential Contaminant Score = 1076 ?

DELETING OR ARCHIVING AN EXISTING IWMZ PCSI POINT

To delete the currently selected IWMZ PCSI point, click the **Delete** button. This will bring up the Delete Confirmation message box. Click the **OK** button to permanently delete this point. Similarly, click the **Archive** button to bring up the Archive Confirmation message box (you may want to archive the point if it was a previously-existing potential contaminant source that has since been removed). Clicking this **OK** button will save this record to the archive database and remove it from the active database. In either case, click the **Cancel** button if you don't want to delete or archive this point at all. Clicking either button will close this message box and return you to the main application page.



(equivalent **Archive** message box)



VIEWING / EDITING FACILITY INFORMATION

To view and/or edit Facility Information click on the **Facility Info** tab. This will display the following panel. You can make changes to any textbox, drop-down list, or date control. Any unsaved changes will appear in **red**. Upon making any changes, the other tabs become disabled and will remain so until the changes are either saved or cancelled. Click the **Save** button to save any changes you have made, and click the **Cancel** button to abandon any changes you have made.

The screenshot shows the 'Facility Info' tab selected. The 'Inspector' dropdown is set to 'Kluhsman, Mark'. The 'Date' field contains '4/22/2015'. Below the date, there are three checkboxes: 'No contaminants located on form' (checked), 'Isolation distances maintained for new sources of contamination?' (N/A), and 'Monitoring existing nonconforming sources of contamination?' (N/A). A large text area for 'Comments' is empty. At the bottom, there are three sections: 'ORIGINAL DATA ENTRY: Holmes, Chanel (02/26/2002)', 'LATEST DATA UPDATE: Kluhsman, Mark (06/08/2015)', and 'SANITARY SURVEY REPORT PRINTED: Kullgren, Karen (05/14/2004)'. The 'Save' and 'Cancel' buttons are highlighted with a red box.

This screenshot shows the same form with changes highlighted in red. The 'Date' field now shows '10/5/2017'. A date picker is open, showing a calendar for October 2017 with the 5th highlighted. The 'Comments' text area now contains the text 'example of changes made.' in red. The 'Save' and 'Cancel' buttons remain highlighted. The bottom section of the form is identical to the previous screenshot.

WORKING WITH THE MAP

To change the map display click the **Map Display** tab.

Non-IWMZ PCSI features Identification - Click the **ID** button to set the Next Map Action to **Identify non-IWMZ PCSI features on map**. Then, click on a non-IWMZ PCSI feature on the map (e.g. a Public Water Supply well or an unsealed well) to open up a series of popup boxes identifying the feature(s) at that location. If there is more than one feature, you can display information about each one by clicking the left and right arrows on the popup boxes. Click the **X** in the upper right corner of any popup box to close the box.

Map Scales, Buffers and Bearing Lines and Colors - This application allows you to view your data at three different scales: 200' radius, 300' radius, and 600' radius. Click the check boxes to select between these different map scales. You can also turn off the target buffer circles and bearing lines by unchecking all three check boxes. The **Buffer and Text Color** drop box below allows you to change the display color of these lines and colors (the default color is Black). This can be useful if the background image makes it difficult to see them in a particular color.

The screenshot displays the application's user interface, divided into a settings sidebar on the left and a main map view on the right.

Settings Sidebar:

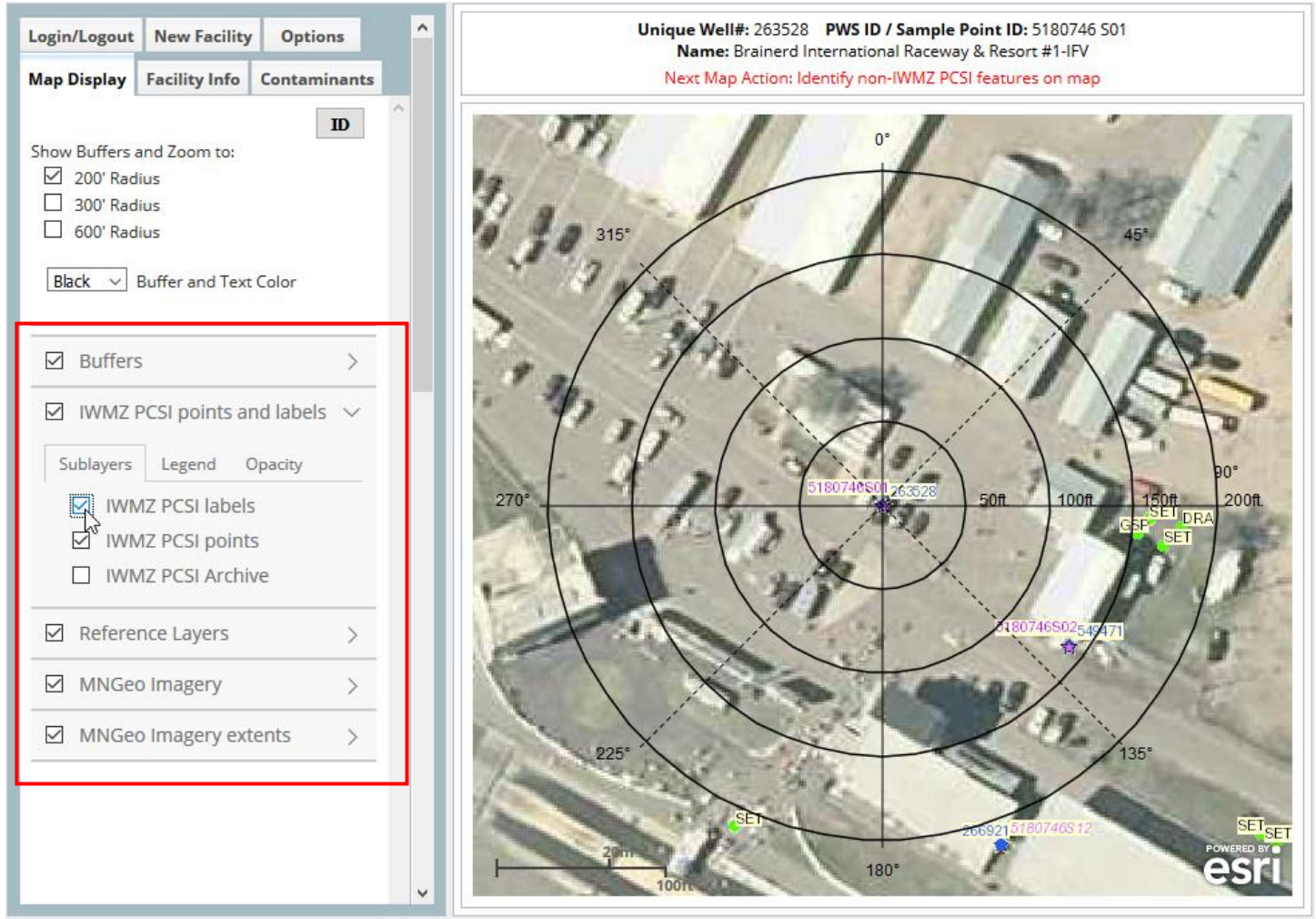
- Top tabs: Login/Logout, New Facility, Options.
- Map Display tab is selected.
- Facility Info and Contaminants tabs are also visible.
- ID** button is highlighted.
- Section: Show Buffers and Zoom to:
 - ☒ 200' Radius
 - ☐ 300' Radius
 - ☐ 600' Radius
- Buffer and Text Color: Black (dropdown menu).
- Checkboxes for Buffers, IWMZ PCSI points and labels, Reference Layers, MNGeo Imagery, and MNGeo Imagery extents are all checked.

Main Map View:

- Header information: Unique Well#: 800735, PWS ID / Sample Point ID: 5040010 S02, Name: Turtle River Chophouse #2.
- Next Map Action: Identify non-IWMZ PCSI features on map.
- The map shows an aerial view with concentric buffer circles (200', 300', 600') and bearing lines (0°, 45°, 135°, 180°, 225°, 270°, 315°).
- A well location is marked with a red dot and labeled "5040010 S02".
- A popup box titled "PWS Source Info. (1 of 2)" is open, displaying:
 - PWSID/SID: 5040010 S02
 - Well#: 800735
 - Name: Turtle River Chophouse #2
 - Well Logs: [CWI](#) [1Suite](#) [MGS](#)
 - [Zoom to](#)
- A scale bar at the bottom left indicates 20m and 100ft.
- The Esri logo is in the bottom right corner.

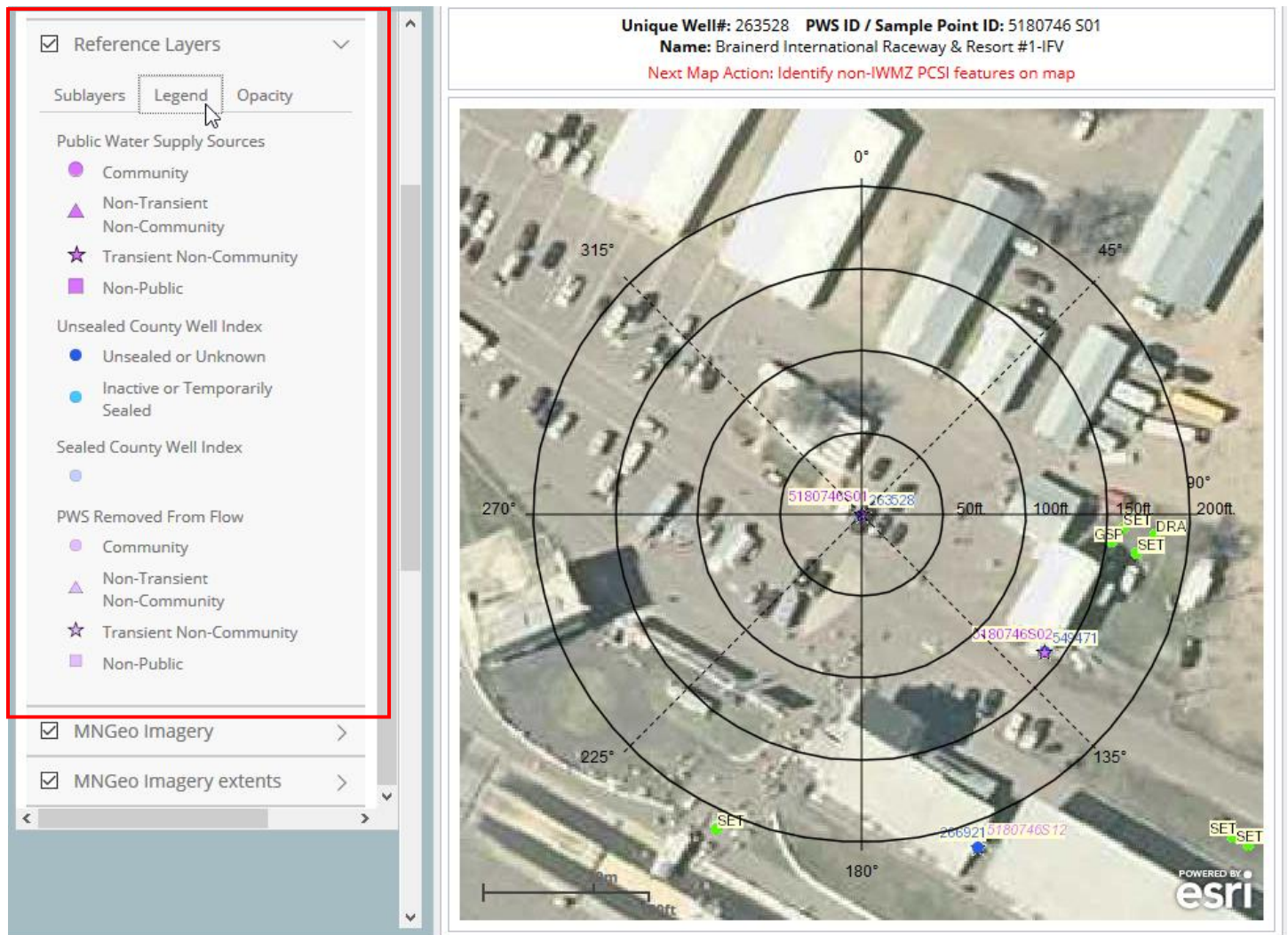
WORKING WITH THE MAP (continued)

Map Layers – The map layers are listed in the map layer list. You can expand the layer groups, check Sublayers on and off, view the layer symbology in the Legend (see next page), and change the Opacity of each layer. Checking a layer on or off will redraw the map accordingly. In this application the **MnGeo Imagery** layer is on by default, and the application will display imagery based on the location of the facility you're currently working with.



WORKING WITH THE MAP (continued)

Map Layers (continued) – This page is just showing how to view the layer symbology.



OTHER FUNCTIONS AND INFORMATION

To work with a new facility (well), click the **New Facility** tab. There you can again type in a PWS ID and Sample Point ID (e.g. 5040010 S01) or a unique well number to access a different facility and its related potential contaminant sources.

OTHER FUNCTIONS AND INFORMATION

(continued):

Login/Logout **New Facility** **Options**

Map Display Facility Info Contaminants

LINKS:

IWMZ PCSI 5-page Report Options:

- [IWMZ PCSI Report \(STANDARD\)](#)
- [200' Radius Map w/Air Photos](#)
- [600' Radius Map w/Air Photos](#)

[IWMZ PCSI Report Cover Letter](#)

[Blank PCSI Form](#)

[CWI Well Report](#)

[Scanned Well Log](#)

[Well Location Map w/Air Photos](#)

[IWMZ PCSI 200' Radius Map w/Air Photos](#)

[IWMZ PCSI 600' Radius Map w/Air Photos](#)

[IWMZ PCSI 600' Radius Map w/Topo Map](#)

[Source Water Assessment](#)

[IWMZ PCS Glossary](#)

[Obsolete Codes](#)

[Scoring Methodology](#)

[Muni Comm IWMZ PCSI work needed](#)

[MDH NonComm IWMZ PCSI work needed](#)

[Local NonComm IWMZ PCSI work needed](#)

[Help](#)

[What's New](#)

Version: 21.02.24.1621

The **Options** tab contains links to a variety of different outputs:

IWMZ PCSI 5-page Report Options: create PDF versions of the 5-page IWMZ PCSI report, complete with a list of contaminants, a target map page, MNDWIS measures, and comments.

IWMZ PCSI Report Cover Letter creates a MS Word document to send along with the 5-page IWMZ PCSI Report. *This option is enabled for Active Municipal Community PWS systems only.*

Blank PCSI Form brings up a blank PDF version of the 5-page IWMZ PCSI form.

CWI Well Report creates a report of this well from County Well Index.

Scanned Well Log will bring up scanned documents for this well from the 1Mage imaging system *if available*.

Well Location Map creates a PDF version of the well location map page, including a smaller scale USGS quad map image and a larger scale air photo image.

IWMZ PCSI 200' Radius Map w/Imagery, IWMZ PCSI 600' Radius Map w/Imagery, and IWMZ PCSI 600' Radius Map w/Topo Map generate page-size PDF maps of the current IWMZ, including IWMZ PCSI points.

Source Water Assessment links to MDH's Source Water Assessment web page for this system.

IWMZ PCS Glossary opens the current version of the IWMZ PCS Glossary developed in collaboration between the IWMZ Workgroup and the Well Management Section.

Obsolete Codes opens a PDF document listing Potential Contaminant Source types no longer used.

Scoring Methodology opens a PDF document describing the non-complying score calculations.

Muni Comm/MDH NonComm/Local NonComm IWMZ PCSI work needed link to IWMZ PCSI status reports.

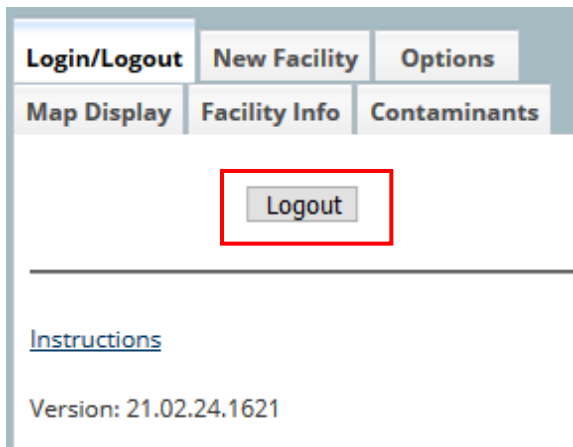
Help opens up this PDF document.

What's New opens up a web page displaying recent changes to this application.

The current version of the application is also shown.

LOGGING OUT

When you are done working, click on the **Login/Logout** tab and click the **Logout** button to log out of your current session of this application.



That's about it. Hopefully you will be able to successfully use this application and find it valuable, worthwhile, and not too confusing. Please contact Alan Epp at (651) 201-4693 or alan.epp@state.mn.us if you have any questions or problems with this application.