

Site Remediation Waste Management Immediate Environmental Concern (IEC) GIS Layer

An IEC GIS layer has been created to identify all IEC locations with response actions performed or overseen by the Division of Remediation Management, Site Remediation and Waste Management Program (SRWMP) at the New Jersey Department of Environmental Protection (NJDEP). An IEC is the highest priority case in the SRWMP. The IEC GIS layer can be viewed in the [Site Remediation Profile in NJ-Geoweb](#).

The IEC GIS layer itself is located under the “Sites and Facilities” grouping.

What Is An IEC?

An IEC is a condition that involves actual human exposure to hazardous substances that exceed applicable health-based criteria, screening levels, or standards resulting from the release of a hazardous substance. IEC conditions can include drinking contaminated water (potable water), breathing contaminated indoor air (vapor intrusion), and contact with contaminated soil (direct contact). An IEC is the highest priority case for the NJDEP due to the urgent need to protect **public** health, safety, and the environment.

The [IEC Guidance Document](#) is available on the NJDEP’s Site Remediation Program Webpage in the Guidance Library (nj.gov/dep/srp/guidance/#iec). Additional information regarding an IEC can be obtained by contacting the NJDEP Office of Community Relations (OCR) at (609) 292-2943 and the NJDEP Bureau of Environmental Measurements and Site Assessment (BEMSA) at (609) 376-9424.

Please click on the following link to view a short video describing what an IEC is: [What is an IEC?](#) This video describes the three types of Immediate Environmental Concern (IEC) cases and how these cases are addressed under the NJDEP Site Remediation and Hazardous Waste Program.

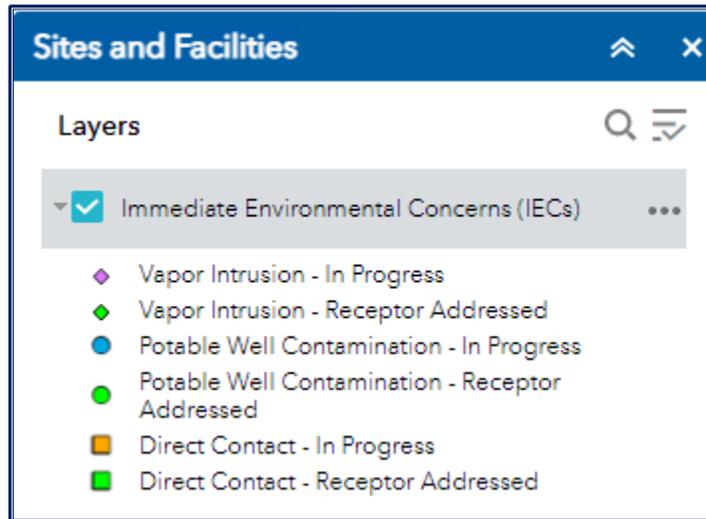
IEC Process

Each IEC has an assigned NJDEP case manager who oversees response actions. These response actions are performed by a responsible party or the NJDEP. The NJDEP’s IEC case manager monitors the responsible party’s receptor and source mitigation measures and ensures public health is protected. The NJDEP also addresses IEC conditions using public funds to protect **public** health, safety, and the environment when the source of the contamination is unknown or the responsible party is unable or unwilling to address the IEC.

How to Use This Information

The GIS map identifies IEC conditions at which the responsible party and/or the NJDEP has undertaken an IEC response action due to the urgent need to protect human health, safety, and the environment

The map includes various shaped points representing the three broad types (vapor, potable well and direct contact) of active IECs as depicted and described below:



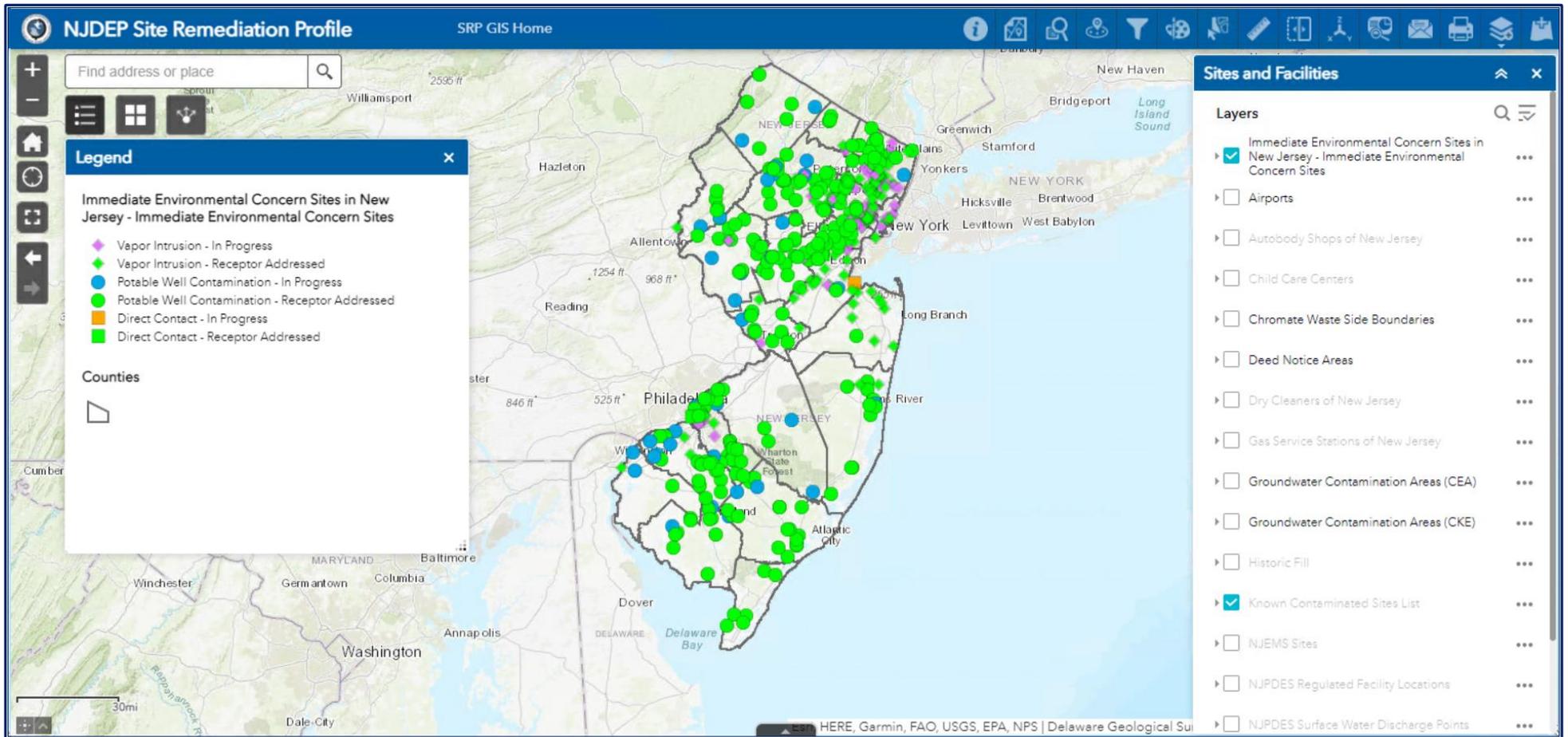
- **Vapor Intrusion IEC (diamond)** - A vapor intrusion IEC exists when a discharge of a hazardous substance results in contamination above an indoor air Rapid Action Level (RAL) in a building and there is a demonstrated pathway between the subsurface hazardous substance release and the RAL exceedance in a building, (i.e., the contamination is entering the building from the ground and is not from materials stored or activities conducted inside the building).
- **Potable Well IEC (circle)** - A potable well IEC exists when a discharge of a hazardous substance results in contamination above a Class II Ground Water Remediation Standard in water being used for potable purposes.
- **Direct Contact IEC (square)** - A direct contact IEC exists when a discharge of a hazardous substance results in the presence of contamination above acute health effects levels in the upper six inches of the soil column and there is actual or potential for human contact via dermal contact, ingestion, or inhalation. An acute health effect is when an adverse human health impact could result from an exposure of less than two weeks.

An IEC identified with a status of In Progress are those where a response action is currently underway to address the impacted receptor(s) and are colored blue for a potable well IEC; purple for a vapor intrusion IEC and orange for a direct contact IEC. All green colored symbols represent an IEC where the receptor has been addressed and a receptor control is in place which protects the public from being exposed to the contamination.

Reports Available in DataMiner

[DEP DataMiner](#) includes a variety of reports that provide the user with up-to-the-minute results from many different environmental media and subjects. There are two reports that pertain directly to an IEC:

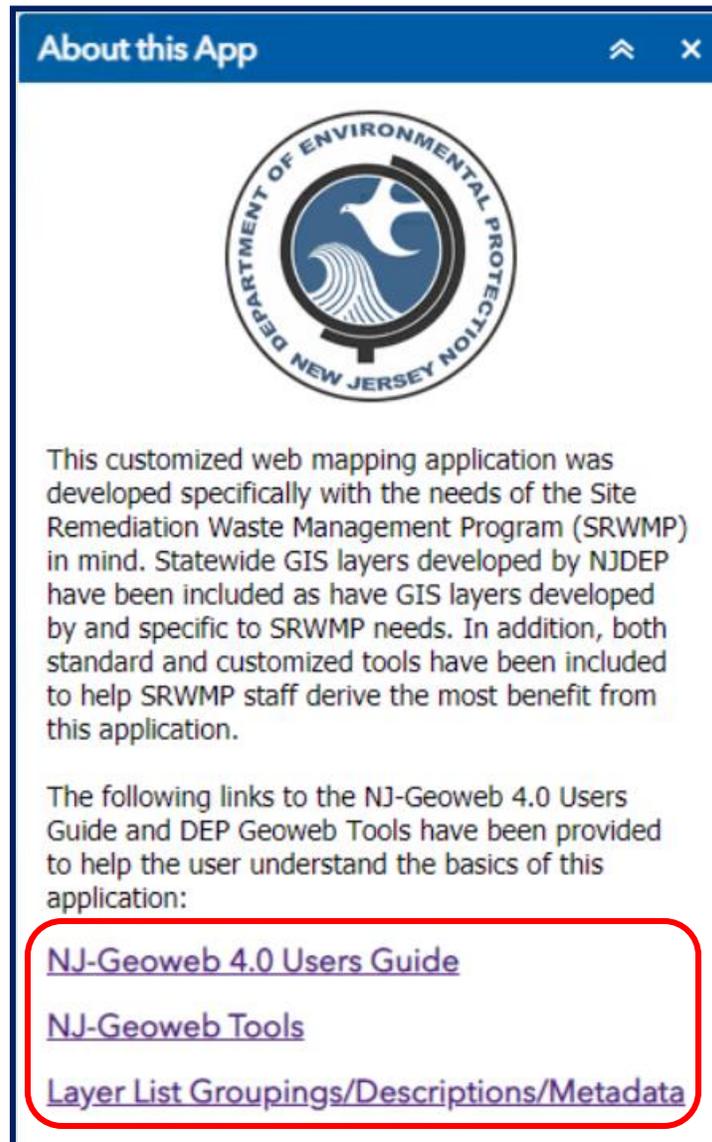
- Sites with an Immediate Environmental Concern
- Sites with an Immediate Environmental Concern by Municipality



Site Remediation NJ GeoWeb Profile

The Site Remediation NJ Geoweb Profile mapping application allows you to easily identify Known Contaminated Sites, Immediate Environmental Concerns and other highly informative NJDEP Site Remediation data layers both within and proximate to your community. Upon launching this application, you will find links to a User's Guide and Tutorial to help you to use the tools within the mapping application (outlined in red below). There is also a link (Layer List Groupings/Descriptions/Metadata) that will provide detailed information concerning each of the GIS layers present within the application, including the IEC layer.

Please click on the following link to view a short video describing how to access and interact with the IEC GIS Layer using the Site Remediation Profile web mapping application: [How to interact with the IEC GIS Layer](#)



About this App

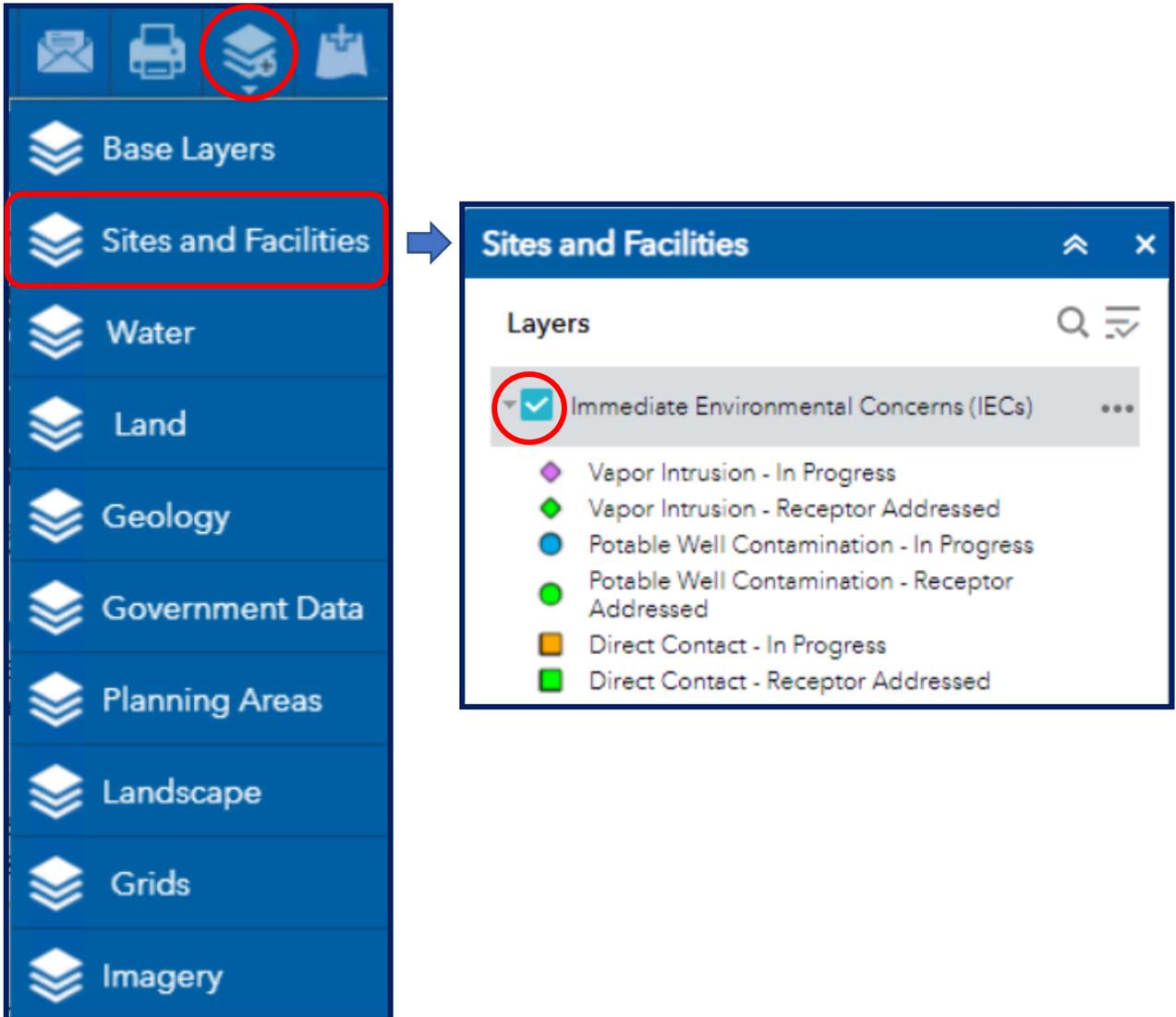


This customized web mapping application was developed specifically with the needs of the Site Remediation Waste Management Program (SRWMP) in mind. Statewide GIS layers developed by NJDEP have been included as have GIS layers developed by and specific to SRWMP needs. In addition, both standard and customized tools have been included to help SRWMP staff derive the most benefit from this application.

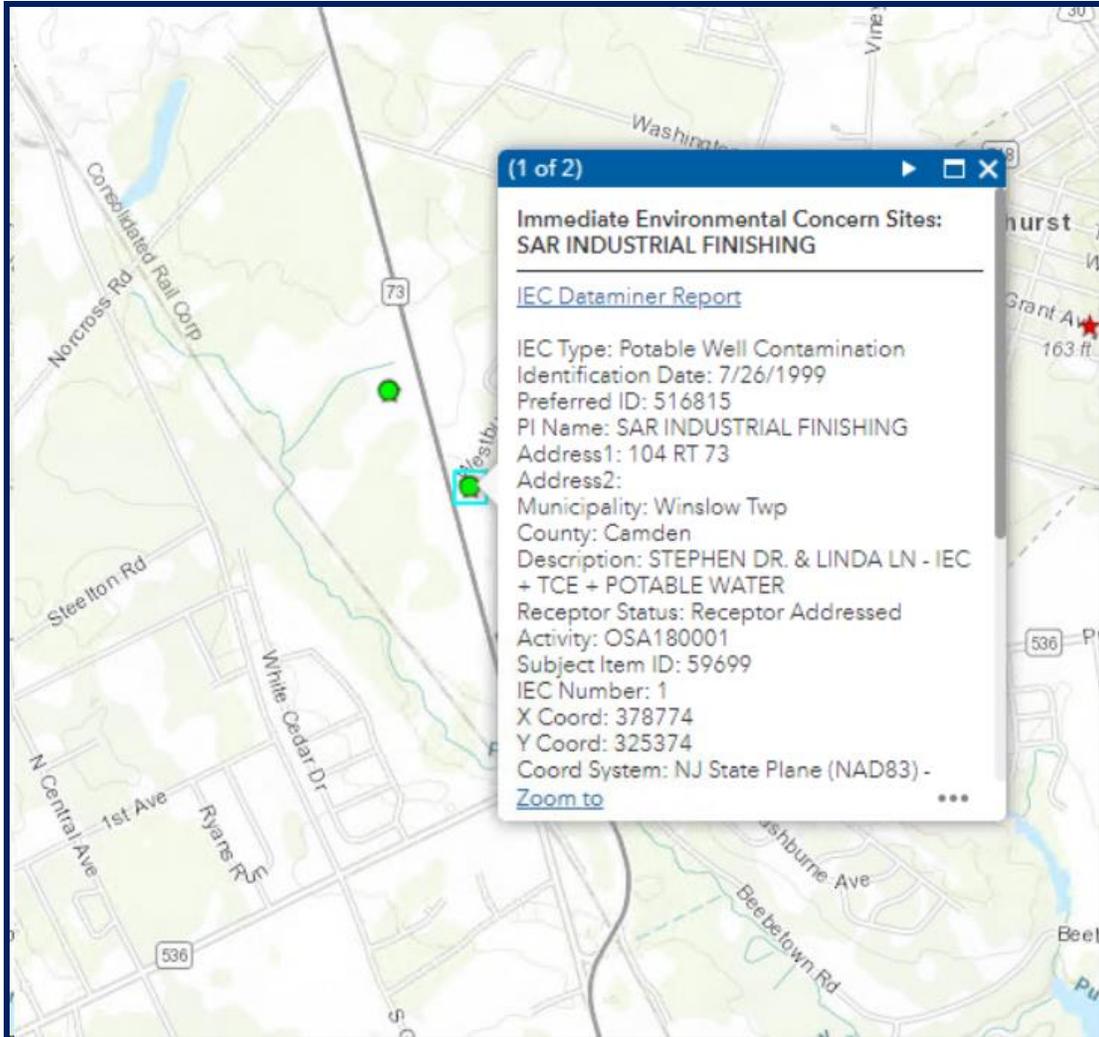
The following links to the NJ-Geoweb 4.0 Users Guide and DEP Geoweb Tools have been provided to help the user understand the basics of this application:

- [NJ-Geoweb 4.0 Users Guide](#)
- [NJ-Geoweb Tools](#)
- [Layer List Groupings/Descriptions/Metadata](#)

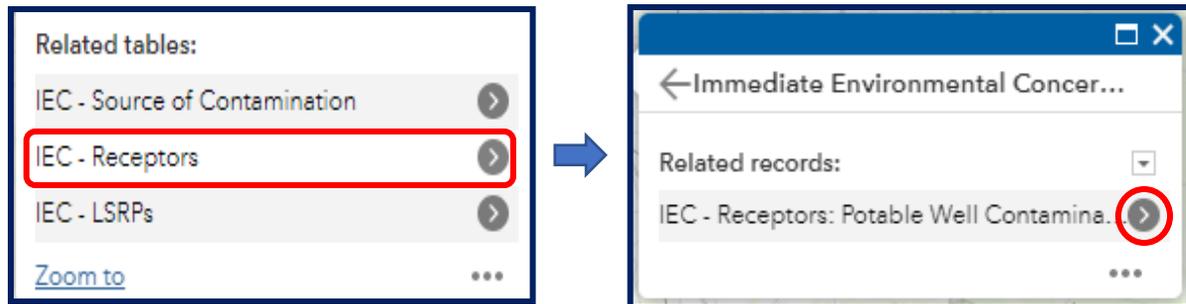
To view the IEC GIS layer, click on layer list at the top right of the screen (circled in red below), then click on Sites and Facilities (outlined in red below), find the IEC layer in the list of GIS layers and click the check box in order to display it in the map. You can also click the small gray triangle to the left of the checkbox to display the symbology for the IEC GIS layer:



You can find specific information about an IEC by clicking on the IEC symbol on the map and opening the pop-up for the IEC:



Additional information concerning the IEC Source, IEC Receptors and Licensed Site Remediation Professionals (LSRPs) associated with the IEC can be obtained by clicking on any of the three Related Tables displayed at the bottom of the IEC pop-up window to view this information (in this instance Receptor related data was selected and displayed).



The screenshot shows a window titled 'IEC - Receptors: Potable Well Co...'. Below the title bar, the text 'IEC - Receptors: Potable Well Contamination' is displayed. The main content area contains the following data:

IEC_TYPE	Potable Well Contamination
IEC_DESCRIPTION	STEPHEN DR. & LINDA LN - IEC + TCE + POTABLE WATER
SUBJECT_ITEM_ID	59699
STATUS_DATE	4/26/2005
CONTROL_STATUS	Controlled
REMEDIAL_MEASURE	POETS (Homeowner)
WELL_TYPE	Domestic
NUMBER_IMPACTED_WELLS	> 20

Three dots (more options) are visible at the bottom right of the window.