

NEPAssist Report API Instructions

1. Introduction

The NEPAssist Report API is used to build queries to obtain a URL that can be used to hyperlink the NEPAssist report or to return the data in JSON for the NEPAssist report. It is a RESTful API. An interactive tool is also provided to make it easier to use the API and build the necessary parameters to retrieve the data for a NEPAssist report. Users can select the input parameters and submit the request. The tool will display the returned NEPAssist data as well as the syntax that developers need for submitting requests directly to the API in applications.

NEPAssist Report API tool: <https://nepassisttool.epa.gov/nepassist/nepassistapi.html>

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Point Line Polygon Rectangle

Note: Use the location box below to find an address or place and then click on the map or enter/paste a JSON geometry string in the Geometry box.

Search: SFO

Map showing San Bruno, Millbrae, and San Francisco Int'l Airport.

County of San Mateo, California, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, NGA, USGS, Coyote, Powered by Esri

Title: My Project

Geometry: {"spatialReference":{"wkid":4326},"x":-122.41402213553597,"y":37.63117945119861}

Buffer Size: 1

Buffer Unit: mile

Format: report

Submit (GET) Submit (POST)

Figure 1. NEPAssist Report API tool

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2. Steps to Build a Query and Retrieve Data

Follow these steps to build a query and retrieve NEPAssist data and the report from the interactive tool.

1. Select a location input type for the area of interest by selecting one of the radio buttons. The input type should be a geometry. Geometry types: point, line, polygon, rectangle area.
2. In the search box on the map, enter a location or address. Click the map to obtain values for the input type chosen in the previous step, as follows:
 - Point: Click the map to obtain a single latitude/longitude point location.
 - Line: Click a series of points on the map to draw a line. Double-click to end the drawing.
 - Polygon: Click a series of points on the map to draw a polygon. Double-click to end the drawing or click on the starting point.
 - Rectangle: Click the map at the location of one corner of a rectangle and drag the mouse to draw a box. Release the mouse at the opposite corner of the rectangle to finish.
3. Title: Enter the project title.
4. Geometry parameter: When any input is finalized, the Geometry text box will be automatically populated with the correct values for the API parameters. Although this box can be manually populated, it is recommended that users interact with the map as described in previous steps to obtain or update the geometry.
5. Buffer Size: Enter a size for the buffer, which is the distance from the input location that will be included for the report. The buffered area plus the original location constitutes the study area. For a Point or Line input, the Buffer Size cannot be zero (0). For all other types, a Buffer Size of 0 can be entered; this will include the study area only, with no additional buffer.
6. Buffer Unit: Choose the distance unit (mile or kilometer) represented by the Buffer Size.
7. Format: Two options are available for the results format, JSON and Report.
 - Select *json* to return the NEPAssist values for the study area in JSON format. This format is typically used by other applications to read and display information as needed.
 - Select *report* to generate a URL that can be used as a hyperlink to a NEPAssist report as if it would be generated by running the NEPAssist application.
8. Submit: Click one of the Submit buttons to submit the parameters and return the data. Two buttons are provided to send the parameters via the two standard HTTPS request methods, GET and POST.
 - Click *Submit (GET)* to send a single URL that includes all parameters. The URL will be displayed in a box labeled API Url, and the JSON results will be displayed in a box labeled Results.
 - Click *Submit (POST)* to send all the parameters to the API endpoint as a POST method. The endpoint and all parameters will be shown in a box labeled API Url, and the JSON results will be displayed in a box labeled Results.
9. Copy: Click a *Copy* button to copy the content in the box below to the clipboard.
 - *Note:* If the format type is report, the Results section will show a full NEPAssist report. If the format type is json, the Results section will list questions and answers in JSON format.

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3. Use Cases

The following illustrate two examples of how to use the NEPAssist Report API.

3.1. Use Case #1: Generate a NEPAssist report around a point of interest using the JSON option.

1. Select the radio button for input type of *Point*.
2. In the search box, type “Fairfax, Virginia”. The map will zoom to the area of Fairfax, Virginia.
3. Click on the map to pinpoint the location. The Geometry text box below the map will display the latitude and longitude coordinates for the point in JSON.
4. In the Title field, enter a project title.
5. In the Buffer Size field, enter “0.5”.
6. From the Buffer Unit dropdown list, select *mile*.
7. From the Format dropdown list, select *json*.
8. Click the *Submit (GET)* button.

The screenshot shows the NEPAssist Report API interface. At the top right is the EPA logo and the text "United States Environmental Protection Agency". Below the logo are links for "Home" and "Help".

On the left, there are radio buttons for "Point" (selected), "Line", "Polygon", and "Rectangle". Below these is a note: "Note: Use the location box below to find an address or place and then click on the map or enter/paste a JSON geometry string in the Geometry box."

The main area is a map of Fairfax, VA, with a search box containing "Fairfax, VA, USA". The map shows various roads and landmarks. Below the map, there is a form with the following fields:

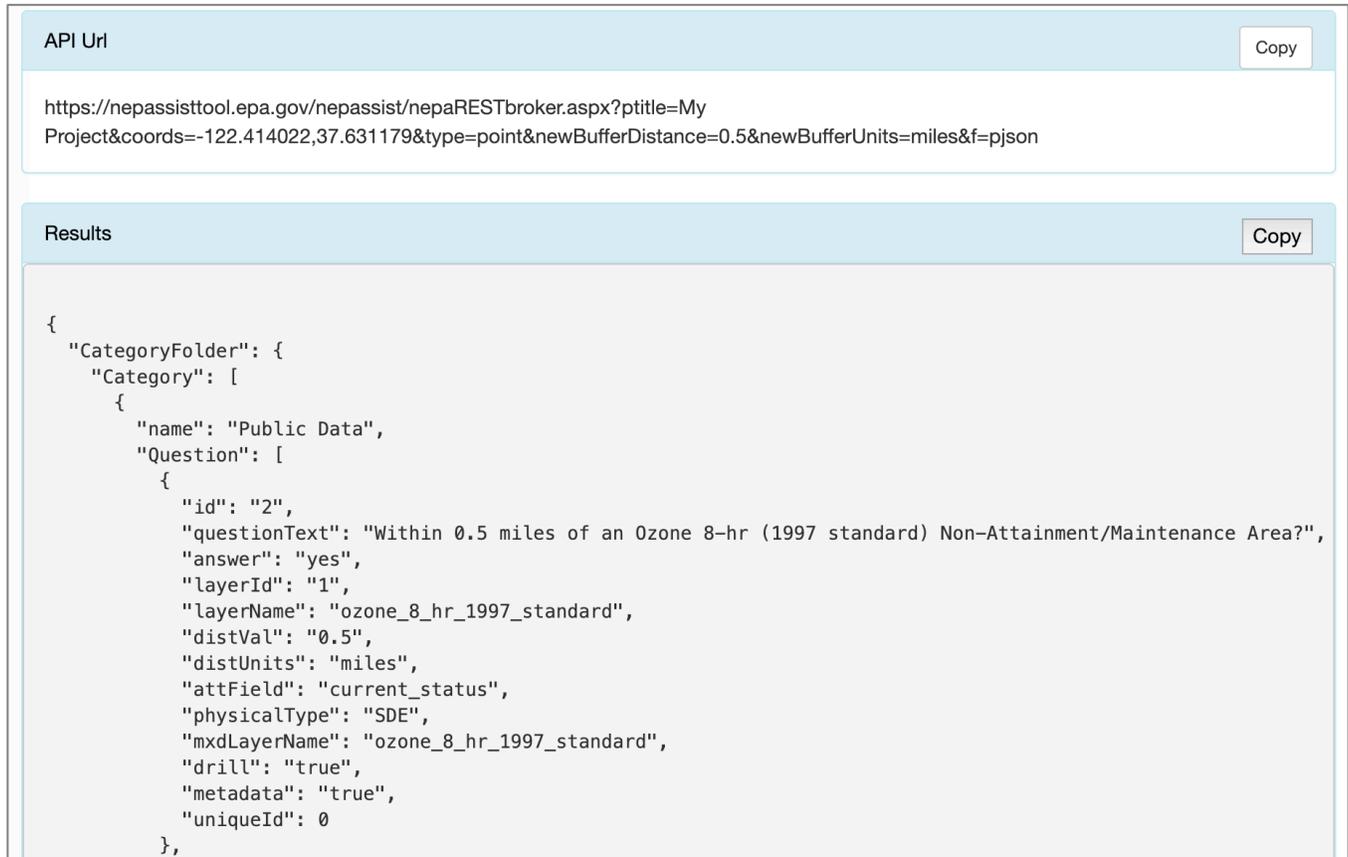
- Title: My Project
- Geometry: {"spatialReference":{"wkid":4326},"x":-122.41402213553597,"y":37.63117945119861}
- Buffer Size: 0.5
- Buffer Unit: mile
- Format: json

At the bottom of the form are two buttons: "Submit (GET)" and "Submit (POST)".

Figure 2. Use Case #1 Steps

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The results will be generated in JSON format and displayed in the Results section.



The screenshot displays two main sections: 'API Url' and 'Results'. The 'API Url' section contains the following URL: `https://nepassisttool.epa.gov/nepassist/nepaRESTbroker.aspx?ptitle=MyProject&coords=-122.414022,37.631179&type=point&newBufferDistance=0.5&newBufferUnits=miles&f=pjson`. The 'Results' section displays a JSON object representing the data returned by the API. The JSON structure is as follows:

```
{
  "CategoryFolder": {
    "Category": [
      {
        "name": "Public Data",
        "Question": [
          {
            "id": "2",
            "questionText": "Within 0.5 miles of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?",
            "answer": "yes",
            "layerId": "1",
            "layerName": "ozone_8_hr_1997_standard",
            "distVal": "0.5",
            "distUnits": "miles",
            "attField": "current_status",
            "physicalType": "SDE",
            "mxdLayerName": "ozone_8_hr_1997_standard",
            "drill": "true",
            "metadata": "true",
            "uniqueId": 0
          }
        ]
      }
    ]
  }
},
```

Figure 3. Use Case #1 Results (some results are now shown in the figure)

The RESTful URL shown in the API Url box is what is needed to fetch the NEPAssist report data in JSON for the selected point location with 0.5 mile of buffer.

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3.2. Use Case #2: Generate a NEPAssist report for a polygon using the report option.

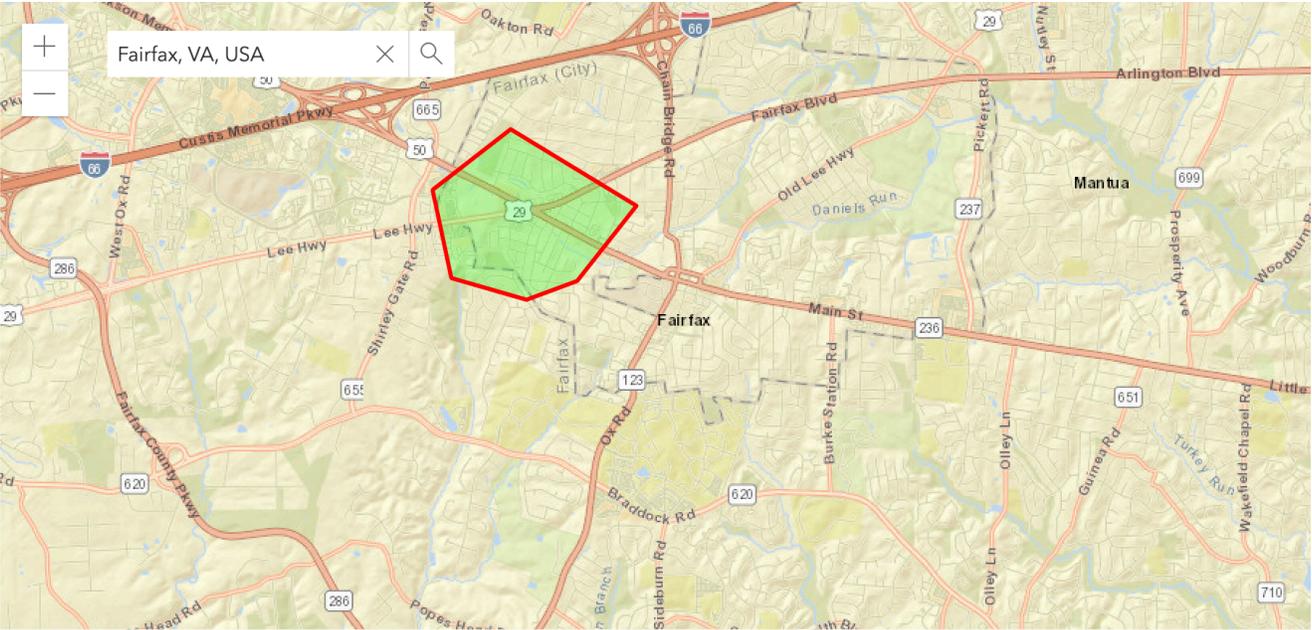
1. Select the radio button for input type of *Polygon*.
2. In the search box, type “Fairfax, Virginia”. The map will zoom to the area of Fairfax, Virginia.
3. Click on the map to start drawing a polygon. Double-click to end the drawing or click on the starting point. The Geometry text box below the map will display the polygon geometry in JSON.
4. In the Title field, enter a project title.
5. In the Buffer Size field, enter “0”.
6. From the Format dropdown list, select *report*.
7. Click the *Submit (GET)* button.

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Point Line Polygon Rectangle

Note: Use the location box below to find an address or place and then click on the map to draw a polygon (lines cannot cross each other). Click on the starting point to end the drawing. Or enter/paste a JSON geometry string in the Geometry box.



County of Fairfax, Prince William County, MNCPPC, VITA, Esri, HERE, Garmin, INCREMENT P, NGA, USGS Powered by Esri

Title:

Geometry:

```
{ "spatialReference": { "wkid": 4326 }, "rings": [ [ [ -77.3355059686183, 38.854581941736576 ], [ -77.3261993738889, 38.86017433736645 ], [ -77.31130305557247, 38.853111449850765 ], [ -77.31830160944456, 38.846168500328574 ], [ -77.32442173986429, 38.84436097673206 ], [ -77.31130305557247, 38.853111449850765 ], [ -77.3261993738889, 38.86017433736645 ], [ -77.3355059686183, 38.854581941736576 ] ] ] }
```

Buffer Size:

Buffer Unit:

Format:

Figure 4. Use Case #2 Steps

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The results will be generated in report format and displayed in the Results section.

API Url Copy

https://nepassisttool.epa.gov/nepassist/analysis.aspx?ptitle=My
Project&coords=-77.335506,38.854582,-77.326199,38.860174,-77.311303,38.853111,-77.318302,38.846169,-77.324422,38.844361,-77.33
3221,38.846436,-77.335506,38.854582&type=polygon&radius=0&unit=miles&f=report

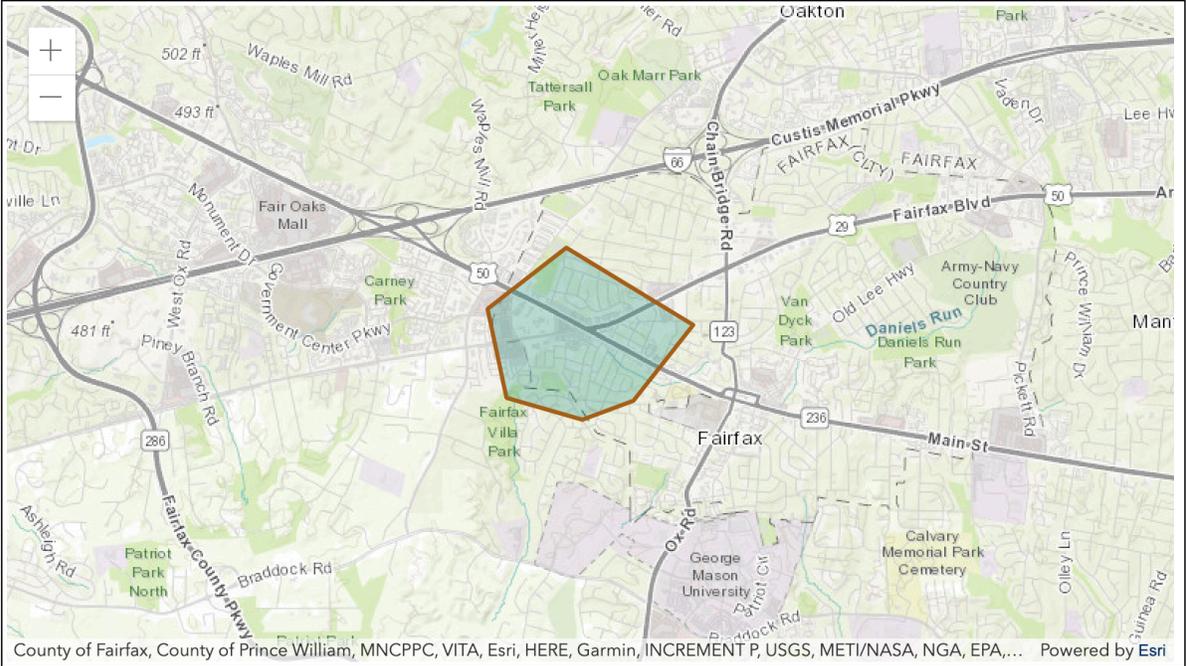
Results

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My Project

Map



County of Fairfax, County of Prince William, MNCPPC, VITA, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, NGA, EPA,... Powered by Esri

Figure 5. Use Case #2 Results (Part One)

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Geographic coordinates:

POLYGON
 (38.854582,-77.335506,38.860174,-77.326199,38.853111,-77.311303,38.846169,-77.318302,38.844361,-77.324422,38.846436,-77.333221,38.854582,-77.335506)
 with buffer 0 miles

Note: The information in the following reports is based on publicly available databases and web services. The National Report uses nationally available datasets and the State Reports use datasets available through the EPA Regions. Click on the hyperlinked question to view the data source and associated metadata.

National Report

Project Area	0.89 sq mi
Within an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	yes
Within an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	yes
Within a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	yes
Within a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within a Federal Land?	no
Within an impaired stream?	no
Within an impaired waterbody?	no
Within a waterbody?	no
Within a stream?	yes
Within an NWI wetland?	click here May take several minutes
Within a Brownfields site?	no
Within a Superfund site?	no
Within a Toxic Release Inventory (TRI) site?	yes
Within a water discharger (NPDES)?	yes
Within a hazardous waste (RCRA) facility?	yes
Within an air emission facility?	yes
Within a school?	yes
Within an airport?	no
Within a hospital?	yes
Within a designated sole source aquifer?	no
Within a historic property on the National Register of Historic Places?	no
Within a Toxic Substances Control Act (TSCA) site?	yes
Within a Land Cession Boundary?	no
Within a tribal area (lower 48 states)?	no

-  [Virginia Report](#) 
-  [Demographic Reports](#) 
-  [USFWS IPaC Report](#) 

Figure 6. Use Case #2 Results (Part Two)

The URL shown in the API Url box is what is needed to call the NEPAssist report for the given polygon, as shown in the Results section.

4. Instructions for Using JSON

As illustrated in Use Case #1, the data for a NEPAssist report will be returned in JSON, as shown in Figure 3. To create a report that is similar to the one shown in Figures 5 and 6, only two data elements are needed, *questionText* and *answer*. Parse out these two elements from JSON and tabulate them. The project title is listed on the bottom of the JSON results.