



Facility Registry System (FRS)

FRS REST Services

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REVISION HISTORY

Version Number	Date	Description of Changes
1.0	12/12/2012	Initial creation.
2.0	02/24/2014	Added documentation for coordinates_output option.

A. INTRODUCTION – FRS REST SERVICES

The following FRS REST Services allow developers to design custom applications utilizing a live feed of data from the FRS database.

This is a collection of query-only or “GET” web services, that are available through a simple URL http link and provide output in either XML, JSON, or JSONP formats. Currently three services are available:

1. [get_facilities](#) provides multiple selection criteria against FRS Facilities Data and their associated Program Facility Data.
2. [get_facilities_wbd](#) returns USGS Watershed Boundary Dataset information for a passed FRS Facility or Program Facility Identifier.
3. [get_cd_111](#) returns the 111th Congress Identifier based on passed latitude/longitude geographic coordinates.

B. GET FACILITIES

B.1 SERVICE SPECIFICATIONS

get_facilities Service Specifications

B.2 BASE URL:

http://ofmpub.epa.gov/enviro/frs_rest_services.get_facilities

B.3 SELECTION CRITERIA:

Of the selection criteria listed below, those that have an “Equal” value under the Search Operator column will provide the best performance. Examples are provided at the end of the section to illustrate how selection criteria can be combined.

Search Term	Variable Name	Search Operator	Other
Facility Registry Id	registry_id	Equal, Optional	
FRS Facility Name	facility_name	Contains, Optional	Full text search on Program Name
Program	program_name	Contains,	Full text search on Program Name

Search Term	Variable Name	Search Operator	Other
Facility Name		Optional	
Street Address	street_address	Contains, Optional	Because of the many variabilities involved with street address it is hard to use an address as a search criteria. May be able to provide an address parser to validate address if needed. Suggest you limit to street base name if you want to do a search on street address.
City	city_name	Equal, Optional	
County	county_name	Equal, Optional	
Zip Code	zip_code	Equal, Optional	Will use only first 5 digits of zip code only
State Abbreviation	state_abbr	Equal, Optional	
Program Acronym	pgm_sys_acrnm	Equal, Optional	See Appendix A for list of Acronyms
Program System Id	pgm_sys_id	Equal, Optional	
Program Output	program_output	Yes/No, Optional	Default is no. Controls whether or not the Program Facility object is output
Output Format	output	XML, JSON, JSONP Optional	Default is XML.
Call back JSONP Function	callback	Optional	Default is callback. Can only be used when the output value is JSONP
Latitude (NAD83)	latitude83	Equal, Optional	The latitude coordinate, in decimal degrees format, using the US Standard NAD83 horizontal Datum. Used in conjunction with Search Radius and Longitude (NAD83) to restrict facility selection to a spatial circle of the provide search radius around the provided spatial coordinate. All 3 selection criteria are required.
Longitude (NAD83)	longitude83	Equal, Optional	The longitude coordinate, in decimal degrees format, using the US Standard NAD83 horizontal datum. See Latitude (NAD83) description.

Search Term	Variable Name	Search Operator	Other
Search Radius (Miles)	search_radius	Maximum, Optional	The maximum search radius is 25 miles. See Latitude (NAD83).
Coordinates Output	coordinates_output	Yes, No, Optional	A value of Yes will output all program coordinates and associated spatial metadata for the facility.

B.4 OUTPUTS:

An XML, JSON, or JSONP formatted document with the following output:

For each facility returned there will be a FRSFacility complex object comprised of the following simple and complex objects. For definitions of the elements listed below please see the FRS Physical Data Model at http://www.epa.gov/enviro/html/fii/FRS_Data_model.html and the FRS Geospatial Data Model at http://www.epa.gov/enviro/html/fii/FRS_GEO_model.html.

OBJECT NAME	Object Type
RegistryId	Simple
FacilityName	Simple
LocationAddress	Simple
SupplementalLocation	Simple
CityName	Simple
CountyName	Simple
StateAbbr	Simple
ZipCode	Simple
FIPSCode	Simple
Latitude83	Simple
Longitude83	Simple
ProgramFacilities	Complex (optional output)
Program Facility	Complex (child of ProgramFacilities) – one for each program facility comprised of the following simple elements listed below.
ProgramSystemAcronym	Simple
ProgramSystemId	Simple
ProgramFacilityName	Simple
ProgramCoordinates	Complex (optional output)
ProgramCoordinate	Complex (child of ProgramCoordinates) – one for each program coordinate comprised of the following simple elements listed below. Data element

OBJECT NAME	Object Type
	definitions can be found in the V_GEO_PGM_COORDINATE_ALL view of the FRS Geospatial Data model at http://www.epa.gov/enviro/html/fii/FRS_GEO_model.html .
ProgramSystemAcronym	Simple
ProgramSystemId	Simple
SubId	Simple
ObjectId	Simple
Latitude83	Simple
Longitude83	Simple
HDatum	Simple
BestPick	Simple
CollectionMethod	Simple
AccuracyValue	Simple
AccuracyScore	Simple
ReferencePoint	Simple
DerivedCity	Simple
DerivedCounty	Simple
DerivedZip	Simple
DerivedWBD	Simple
DerivedCB2010	Simple
DerivedCD112	Simple
MetersToBP	Simple – the distance in Meters from the program coordinate to the Best Pick Coordinate

B.5 EXAMPLE:

URL for Facility Name Search containing “Mobil Oil” in State of Virginia, City of Newport News:

http://ofmpub.epa.gov/enviro/frs_rest_services.get_facilities?state_abbr=VA&city_name=Newport%20News&facility_name=mobil%20oil

URL Results (since no output format was specified, XML results are returned):

```
<Results>
<FRSFacility>
```

```

<RegistryId>110038914654</RegistryId>
<FacilityName>EXXON MOBIL OIL CORP 20428</FacilityName>
<LocationAddress>12330 WARWICK BLVD</LocationAddress>
<SupplementalLocation/>
<CityName>NEWPORT NEWS</CityName>
<CountyName>NEWPORT NEWS CITY</CountyName>
<StateAbbr>VA</StateAbbr>
<ZipCode>23606</ZipCode>
<FIPSCode>51700</FIPSCode>
<Latitude83>37.064781</Latitude83>
<Longitude83>-76.490836</Longitude83>
</FRSFacility>
</Results>

```

URL for searching CERCLIS (Superfund) facilities in zip code 60085 with a program name containing "scrap", with the Program Facility Output turned on and JSON output.

http://ofmpub.epa.gov/enviro/frs_rest_services.get_facilities?pgm_sys_acrnm=CERCLIS&zip_code=60085&program_name=scrap&program_output=yes&output=JSON

URL Results in specified JSON Format:

```

{
  "Results": {
    "FRSFacility": [
      {
        "RegistryId": "110009327246",
        "FacilityName": "DIAMOND SCRAP YARD",
        "LocationAddress": "MARKET STREET AND ELGIN",
        "SupplementalLocation": "MARKET STREET AND ELGIN",
        "CityName": "WAUKEGAN",
        "CountyName": "LAKE",
        "StateAbbr": "IL",
        "ZipCode": "60085",
        "FIPSCode": "17097",
        "Latitude83": "42.35249",
        "Longitude83": "-87.8285",
        "ProgramFacilities": [
          {
            "ProgramSystemAcronym": "CERCLIS",
            "ProgramSystemId": "IL0001093509",
            "ProgramFacilityName": "DIAMOND SCRAP YARD"
          },
          {
            "ProgramSystemAcronym": "NCDB",
            "ProgramSystemId": "I05#19910625IL005 2",

```



```

        "ProgramFacilityName": "DIAMOND SCRAP YARDS INC"
      }
    ]
  }
]
}

```

URL for searching CERCLIS (Superfund) facilities within a 3 mile radius of latitude 38.8/longitude - 77.01 showing program coordinates.

http://ofmpub.epa.gov/enviro/frs_rest_services.get_facilities?latitude83=38.8&longitude83=-77.01&search_radius=3&pgm_sys_acrnm=CERCLIS&coordinates_output=Yes

URL Results:

```

<Results>
<FRSFacility>
<RegistryId>110002500133</RegistryId>
<FacilityName>BALLOU SENIOR HIGH SCHOOL</FacilityName>
<LocationAddress>3401 4TH STREET SOUTHEAST</LocationAddress>
<SupplementalLocation/>
<CityName>WASHINGTON</CityName>
<CountyName>DISTRICT OF COLUMBIA</CountyName>
<StateAbbr>DC</StateAbbr>
<ZipCode>20032-5406</ZipCode>
<FIPSCode>11001</FIPSCode>
<Latitude83>38.84038</Latitude83>
<Longitude83>-77.00056</Longitude83>
<ProgramCoordinates>
<ProgramCoordinate>
<ProgramSystemAcronym>FRS</ProgramSystemAcronym>
<ProgramSystemId>110002500133</ProgramSystemId>
<SubId/>
<ObjectId>23124766</ObjectId>
<Latitude83>38.84038</Latitude83>
<Longitude83>-77.00056</Longitude83>
<HDatum>NAD83</HDatum>
<BestPick>Y</BestPick>
<CollectionMethod>ADDRESS MATCHING-HOUSE NUMBER</CollectionMethod>
<AccuracyValue>150</AccuracyValue>
<AccuracyScore>150</AccuracyScore>
<ReferencePoint>ENTRANCE POINT OF A FACILITY OR STATION</ReferencePoint>
<DerivedCity>WASHINGTON</DerivedCity>
<DerivedCounty>DISTRICT OF COLUMBIA</DerivedCounty>
<DerivedZip>20032</DerivedZip>
<DerivedFIPS>11001</DerivedFIPS>
<DerivedWBD>020700100301</DerivedWBD>
<DerivedCB2010>110010098042005</DerivedCB2010>
<DerivedCD112>98</DerivedCD112>
<MetersToBP>0</MetersToBP>

```

```
</ProgramCoordinate>
</ProgramCoordinates>
</FRSFacility>
<FRSFacility>
  <RegistryId>110013801939</RegistryId>
  <FacilityName>FORT FOOTE</FacilityName>
  <LocationAddress>8900 FORT FOOTE ROAD</LocationAddress>
  <SupplementalLocation>ACROSS FROM JESSICA DRIVE</SupplementalLocation>
  <CityName>FORT WASHINGTON</CityName>
  <CountyName>PRINCE GEORGE'S</CountyName>
  <StateAbbr>MD</StateAbbr>
  <ZipCode>20744</ZipCode>
  <FIPSCode>24033</FIPSCode>
  <Latitude83>38.76771</Latitude83>
  <Longitude83>-77.025261</Longitude83>
  <ProgramCoordinates>
    <ProgramCoordinate>
      <ProgramSystemAcronym>FRS</ProgramSystemAcronym>
      <ProgramSystemId>110013801939</ProgramSystemId>
      <SubId/>
      <ObjectId>21696234</ObjectId>
      <Latitude83>38.76771</Latitude83>
      <Longitude83>-77.025261</Longitude83>
      <HDatum>NAD83</HDatum>
      <BestPick>Y</BestPick>
      <CollectionMethod>ADDRESS MATCHING-HOUSE NUMBER</CollectionMethod>
      <AccuracyValue>150</AccuracyValue>
      <AccuracyScore>150</AccuracyScore>
      <ReferencePoint>ENTRANCE POINT OF A FACILITY OR STATION</ReferencePoint>
      <DerivedCity>FORT WASHINGTON</DerivedCity>
      <DerivedCounty>PRINCE GEORGES</DerivedCounty>
      <DerivedZip>20744</DerivedZip>
      <DerivedFIPS>24033</DerivedFIPS>
      <DerivedWBD>020700100307</DerivedWBD>
      <DerivedCB2010>240338014102011</DerivedCB2010>
      <DerivedCD112>04</DerivedCD112>
      <MetersToBP>0</MetersToBP>
    </ProgramCoordinate>
  </ProgramCoordinates>
</FRSFacility>
<FRSFacility>
  <RegistryId>110002006178</RegistryId>
  <FacilityName>LONG BROTHERS CLEANERS</FacilityName>
  <LocationAddress>655 LEBaum STREET, S. E.</LocationAddress>
  <SupplementalLocation/>
  <CityName>WASHINGTON</CityName>
  <CountyName>DISTRICT OF COLUMBIA</CountyName>
  <StateAbbr>DC</StateAbbr>
  <ZipCode>20032-2520</ZipCode>
  <FIPSCode>11001</FIPSCode>
  <Latitude83>38.836389</Latitude83>
  <Longitude83>-77.006667</Longitude83>
  <ProgramCoordinates>
    <ProgramCoordinate>
      <ProgramSystemAcronym>FRS</ProgramSystemAcronym>
```

```

<ProgramSystemId>110002006178</ProgramSystemId>
<SubId/>
<ObjectId>28314728</ObjectId>
<Latitude83>38.84615</Latitude83>
<Longitude83>-76.99626</Longitude83>
<HDatum>NAD83</HDatum>
<BestPick>N</BestPick>
<CollectionMethod>ADDRESS MATCHING-HOUSE NUMBER</CollectionMethod>
<AccuracyValue>30</AccuracyValue>
<AccuracyScore>30</AccuracyScore>
<ReferencePoint>CENTER OF A FACILITY OR STATION</ReferencePoint>
<DerivedCity>WASHINGTON</DerivedCity>
<DerivedCounty>DISTRICT OF COLUMBIA</DerivedCounty>
<DerivedZip>20032</DerivedZip>
<DerivedFIPS>11001</DerivedFIPS>
<DerivedWBD>020700100204</DerivedWBD>
<DerivedCB2010>110010104001004</DerivedCB2010>
<DerivedCD112>98</DerivedCD112>
<MetersToBP>1410.866</MetersToBP>
</ProgramCoordinate>
<ProgramCoordinate>
<ProgramSystemAcronym>RCRAINFO</ProgramSystemAcronym>
<ProgramSystemId>DCD055188742</ProgramSystemId>
<SubId/>
<ObjectId>14196167</ObjectId>
<Latitude83>38.836389</Latitude83>
<Longitude83>-77.006667</Longitude83>
<HDatum>NAD83</HDatum>
<BestPick>Y</BestPick>
<CollectionMethod/>
<AccuracyValue/>
<AccuracyScore>17459</AccuracyScore>
<ReferencePoint/>
<DerivedCity>WASHINGTON</DerivedCity>
<DerivedCounty>DISTRICT OF COLUMBIA</DerivedCounty>
<DerivedZip>20032</DerivedZip>
<DerivedFIPS>11001</DerivedFIPS>
<DerivedWBD>020700100301</DerivedWBD>
<DerivedCB2010>110010098033002</DerivedCB2010>
<DerivedCD112>98</DerivedCD112>
<MetersToBP>0</MetersToBP>
</ProgramCoordinate>
</ProgramCoordinates>
</FRSFacility>
</Results>

```

C. GET FACILITIES WATERSHED BOUNDARY DATASET

C.1 SERVICE SPECIFICATIONS

get_facilities_wbd Service Specifications test

C.2 BASE URL:

http://ofmpub.epa.gov/enviro/frs_rest_services.get_facilities_wbd

C.3 SELECTION CRITERIA:

Of the selection criteria listed below, those that have an “Equal” value under the Search Operator column will provide the best performance. Examples are provided at the end of the section to illustrate how selection criteria can be combined.

Search Term	Variable Name	Search Operator	Other
Registry ID	registry_id	Equal, Optional	The facility’s FRS Registry ID
Program Acronym	pgm_sys_acrnm	Equal, Optional	See Appendix A for list of Acronyms
Program System Id	pgm_sys_id	Equal, Optional	The program facility system identifier

C.4 OUTPUTS:

An XML, JSON, or JSONP formatted document with the following output:

Object Name	Object Type	Comments
RegistryId	Simple	The facility’s FRS Registry Identifier
ChesapeakeBay	Simple	A Y value indicates the facility is within the Chesapeake Bay watershed
Region	Complex	Lists the HUC 2 USGS Hydroregion number and name for the facility
Subregion	Complex	Lists the HUC 4 USGS Sub-hydroregion number and name for the facility
Basin	Complex	Lists the HUC 6 USGS Basin number and name for the facility
Subbasin	Complex	Lists the HUC 8 USGS Sub-basin number and name for the facility
Watershed	Complex	Lists the HUC 10 USGS Watershed number and name for the facility
Subwatershed	Complex	Lists the HUC 12 USGS Sub-watershed number and name for the facility

C.5 EXAMPLE:

URL for a FRS Registry ID:

http://ofmpub.epa.gov/enviro/frs_rest_services.get_facility_wbd?registry_id=110015778176

URL Results:

```
<Results>
<RegistryId>110015778176</RegistryId>
<ChesapeakeBay>Yes</ChesapeakeBay>
<Region>
<HUC_2>02</HUC_2>
<HU_2_NAME>Mid Atlantic Region</HU_2_NAME>
</Region>
<Subregion>
<HUC_4>0207</HUC_4>
<HU_4_NAME>Potomac</HU_4_NAME>
</Subregion>
<Basin>
<HUC_6>020700</HUC_6>
<HU_6_NAME>Potomac</HU_6_NAME>
</Basin>
<Subbasin>
<HUC_8>02070010</HUC_8>
<HU_8_NAME>Middle Potomac-Anacostia-Occoquan</HU_8_NAME>
</Subbasin>
<Watershed>
<HUC_10>0207001003</HUC_10>
<HU_10_NAME/>
</Watershed>
<Subwatershed>
<HUC_12>020700100303</HUC_12>
<HU_12_NAME>Henson Creek</HU_12_NAME>
</Subwatershed>
</Results>
```

D. GET 111TH CONGRESS IDENTIFIER

D.1 SERVICE SPECIFICATION

get_cd_111 Service Specification

D.2 BASE URL:

http://ofmpub.epa.gov/enviro/frs_rest_services.get_cd_111

D.3 SELECTION CRITERIA:

Of the selection criteria listed below, those that have an "Equal" value under the Search Operator column will provide the best performance. Examples are provided at the end of the section to illustrate how selection criteria can be combined.

Latitude	latitude	Equals, Required	In decimal degrees
Latitude	latitude	Equal, Optional	In decimal degrees
Longitude	longitude	Equals, Required	In decimal degrees
Horizontal Datum	hdatum	Equal, Optional	Default is NAD83, WGS84 is also accepted

D.4 OUTPUTS:

An XML, JSON, or JSONP formatted document with the following output:

Object Name	Object Type	Comment
State	Simple	
CD	Simple	Congressional District Number
CDName	Simple	Congressional District Name

D.5 EXAMPLE:

Example URL:

http://ofmpub.epa.gov/enviro/frs_rest_services.get_cd_111?latitude=38.8&longitude=-77.01&hdatum=wgs84

URL Results:

```
<Results>
<Message>Success</Message>
<State>MD</State>
<CD>04</CD>
```

<CDName>Congressional District 4</CDName>

</Results>

E. APPENDIX A

PGM_SYS_ACRNM

ACES
ACRES
AIRS/AFS
AIRS/AQS
AZURITE
BIA INDIAN SCHOOL
BOILER
BR
BRAC
CAMDBS
CASWIS
CDAFLP
CEDS
CERCLIS
CIM
CNFRS
CWNS
DTSC-ENVIROSTOR
ECOMAP
ECRM
EGRID
EIA-860
EIS
FDM
FIS
FRP
FRS
GEIMS
GNIS
HWTS-DATAMART
ICIS
IDNR_EFD
IN-FRS
ISD
KS-FP
LA-TEMPO
LANDFILL
LUST-ARRA
MA-EPICS

PGM_SYS_ACRNM

MO-DNR
MS-ENSITE
T-CEDARS
NC-FITS
NCDB
NCES
ND-FP
NE-IIS
NEI
NEPT
NH-DES
NJ-NJEMS
NM-TEMPO
NNEMS
NPDES
NV-FP
OH-CORE
OK-FMS
OR-DEQ
OTAQREG
PA-EFACTS
PCS
PDS
PERMIT TRACKING
RADINFO
RBLC
RCRAINFO
RFS
RI-PLOVER
RMP
SC-EFIS
SDWIS
SIMS
SRPMICEMS
SSTS
STATE
TBA
TRIS
TSCA

MD-EPSC	TX-TCEQ ACR
MD-PEMIS	UORS
MD-RCRA	UST
ME-EFIS	WA-FSIS
MN-DELTA	WI-ESR

F. APPENDIX B - EXAMPLES

URL for Facility Name Search containing “Mobil Oil” in State of Virginia, City of Newport News:

http://ofmpub.epa.gov/enviro/frs_rest_services.get_facilities?state_abbr=VA&city_name=Newport%20News&facility_name=mobil%20oil

URL Results:

```
<Results>
<FRSFacility>
<RegistryId>110038914654</RegistryId>
<FacilityName>EXXON MOBIL OIL CORP 20428</FacilityName>
<LocationAddress>12330 WARWICK BLVD</LocationAddress>
<SupplementalLocation/>
<CityName>NEWPORT NEWS</CityName>
<CountyName>NEWPORT NEWS CITY</CountyName>
<StateAbbr>VA</StateAbbr>
<ZipCode>23606</ZipCode>
<FIPSCode>51700</FIPSCode>
<Latitude83>37.064781</Latitude83>
<Longitude83>-76.490836</Longitude83>
</FRSFacility>
</Results>
```

URL for searching CERCLIS (Superfund) facilities in zip code 60085 with a program name containing “scrap” and with the Program Facility Output turned on.

http://ofmpub.epa.gov/enviro/frs_rest_services.get_facilities?pgm_sys_acrnm=CERCLIS&zip_code=60085&program_name=scrap&program_output=yes

URL Results:

```
<Results>
<FRSFacility>
<RegistryId>110009327246</RegistryId>
<FacilityName>DIAMOND SCRAP YARD</FacilityName>
<LocationAddress>MARKET STREET AND ELGIN</LocationAddress>
<SupplementalLocation>MARKET STREET AND ELGIN</SupplementalLocation>
```



```
<CityName>WAUKEGAN</CityName>
<CountyName>LAKE</CountyName>
<StateAbbr>IL</StateAbbr>
<ZipCode>60085</ZipCode>
<FIPSCode>17097</FIPSCode>
<Latitude83>42.35249</Latitude83>
<Longitude83>-87.8285</Longitude83>
<ProgramFacilities>
  <ProgramFacility>
    <ProgramSystemAcronym>CERCLIS</ProgramSystemAcronym>
    <ProgramSystemId>IL0001093509</ProgramSystemId>
    <ProgramFacilityName>DIAMOND SCRAP YARD</ProgramFacilityName>
  </ProgramFacility>
  <ProgramFacility>
    <ProgramSystemAcronym>NCDB</ProgramSystemAcronym>
    <ProgramSystemId>I05#19910625IL005 2</ProgramSystemId>
    <ProgramFacilityName>DIAMOND SCRAP YARDS INC</ProgramFacilityName>
  </ProgramFacility>
</ProgramFacilities>
</FRSFacility>
</Results>
```