

<u>Layers:</u>	<u>Description:</u>	<u>REST Endpoint</u>	<u>Additional Metadata (if applicable):</u>
Wildfire:			
RECOVER Fires	Wildfires polygons where data packages are available for download. To access the data produced by the NASA RECOVER post-wildfire decision support system, use the URL download link that is found in the pop-up.	https://services1.arcgis.com/z5tlnpYHokW9isdE/arcgis/rest/services/RECOVER_Fires/FeatureServer/0	
WFIGS Interagency Fire Perimeters YearToDate	Wildfire polygons for the current year. Data produced by the Wildland Fire Interagency Geospatial Service (WFIGS) and hosted by National Interagency Fire Center (NIFC) authoritative source.	https://services3.arcgis.com/T4QMspbflg3qTGWVY/ArcGIS/rest/services/WFIGS_Interagency_Perimeters_YearToDate/FeatureServer/0	https://data-nifc.opendata.arcgis.com/datasets/nifc:wfigs-2023-interagency-fire-perimeters-to-date/about
Post-wildfire Debris Flow	Post-fire debris-flow hazard assessments for select fires in the Western U.S. as produced by the USGS authoritative source. Geospatial data related to basin morphometry, burn severity, soil properties, and rainfall characteristics are used to estimate the probability and volume of debris flows that may occur in response to a design storm.	https://earthquake.usgs.gov/arcgis/rest/services/lr/pwdf_2022/MapServer	
Preliminary Fire Severity (dNBR)	Raster mosaic created for the purpose of RECOVER 2.0 from dNBRs using Sentinel satellite (20m resolution) of the wildfires recorded by RECOVER. dNBRs were downloaded from BAER imagery support authoritative source.	https://giscenter.rdc.isu.edu/server/rest/services/RECOVER/Preliminary_Fire_Severity_dNBR/ImageServer	https://burnseverity.cr.usgs.gov/baer/baer-imagery-support-data-download
Historic Fires Since 1950	Polygon features for all documented wildfires in the western US from 1950-present. To learn more about the Historic Fires Database (HFD) please visit http://giscenter.isu.edu/research/Techpg/HFD/index.htm	https://services1.arcgis.com/z5tlnpYHokW9isdE/arcgis/rest/services/HFD_HistoricFiresDatabase/FeatureServer/1	https://giscenter.isu.edu/research/Techpg/HFD/index.htm
Boundaries:			
Western US (AOI)	The 11 western states used by the NASA RECOVER post-wildfire decision support system as its area of interest (AOI). This is the area where the majority of wildfire occur and also the area where the majority of public lands exist in the contiguous United States.	https://services1.arcgis.com/z5tlnpYHokW9isdE/arcgis/rest/services/Western_United_States/FeatureServer/0	
SMA Surface Management Agency	The Surface Management Agency (SMA) Geographic Information System (GIS) dataset has been produced to help support post wildfire decision making, and describes Federal land for the Western United States and classifies this land by its active Federal surface managing agency.	https://services1.arcgis.com/z5tlnpYHokW9isdE/arcgis/rest/services/SMA_Surface_Management_Agency/FeatureServer/0	https://catalog.data.gov/dataset/blm-national-surface-management-agency-area-polygons-national-geospatial-data-asset-ngda
Counties	Census Counties of the United States hosted by ESRI.	https://services.arcgis.com/P3ePLMYs2RVChkIx/arcgis/rest/services/USA_Census_Counties/FeatureServer/0	
Wilderness	A boundary of an area designation that comprises all or a portion of a National Wilderness in the National Wilderness Preservation System. Each area designation is characterized by a date, boundary status, and authority and may be just one of several designations that comprise a single National Wilderness.	https://services1.arcgis.com/z5tlnpYHokW9isdE/arcgis/rest/services/Wilderness_Status/FeatureServer/5	
PLSS:			
States	Bureau of Census 207 states cartographic boundaries.	https://giscenter.rdc.isu.edu/server/rest/services/PLSS/MapServer/0	https://gis.blm.gov/arcgis/rest/services/Cadastral/BLM_Natl_PLSS_CadNSDI/MapServer
Township	Township cartographic boundaries as produced by cadastral survey records that are housed by the Bureau of Land Management (BLM) and supplemented by local records and federal agencies.	https://giscenter.rdc.isu.edu/server/rest/services/PLSS/MapServer/1	
Section	Sections are divisions of townships as produced by cadastral survey records that are housed by the Bureau of Land Management (BLM) and supplemented by local records and federal agencies.	https://giscenter.rdc.isu.edu/server/rest/services/PLSS/MapServer/2	
Roads and Trails:			
Roads	Roads in the Western United States utilizing MAF/TIGER Feature Class Codes (MTFCC).	https://giscenter.rdc.isu.edu/server/rest/services/Hosted/Roads_and_Trails/FeatureServer/3	
Trails	Trails in the Western United States distinguishing between snow, water, and terrain trails and maintainers.	https://giscenter.rdc.isu.edu/server/rest/services/Hosted/Roads_and_Trails/FeatureServer/2	
Hydro:			
WBD Watershed Boundary Dataset HUC12	Nationally complete Watershed Boundary Dataset at the HUC12 level as produced by the USGS for the National Map.	https://hydro.nationalmap.gov/arcgis/rest/services/NHDPlusHR/MapServer/12	https://www.usgs.gov/national-hydrography/national-hydrography-dataset
NHD Surface Water Bodies	Nationally complete layer depicting surface water bodies and their forms. Produced by the USGS for the National Map.	https://hydro.nationalmap.gov/arcgis/rest/services/NHDPlusHR/MapServer/9	
NHD Rivers, Streams, and Flowlines	Nationally complete layer depicting flowing water bodies. Produced by the USGS for the National Map.	https://hydro.nationalmap.gov/arcgis/rest/services/NHDPlusHR/MapServer/3	
Wetlands	Layer depicting the regions of the US that meet qualifications to be deemed wetlands. Produced and maintained by the US Fish and Wildlife.	https://fwspubliervices.wim.usgs.gov/wetlandsmapping/st/services/Wetlands/MapServer/0	https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper

Landcover:		https://www.landfire.gov/data_overviews.php
Habitat	Produced to help support post wildfire decision making, Describes wildlife critical habitat in the Western US and Coastal areas.	https://services1.arcgis.com/z5tlnpYHokW9isdE/arcgis/rest/services/Habitat/FeatureServer/3
BPS Biophysical Setting	LANDFIRE layer depicting vegetation system that may have been dominant on the landscape pre Euro-American settlement.	https://giscenter.rdc.isu.edu/server/rest/services/BPS_Biophysical_Setting/ImageServer
EVC Existing Vegetation Cover	LANDFIRE layer depicting vertically projected percent cover of the existing vegetation live canopy layer.	https://giscenter.rdc.isu.edu/server/rest/services/EVC_Existing_Vegetation_Cover/ImageServer
EVT Existing Vegetation Type	LANDFIRE layer depicting narrow sets of diagnostic plant species, including dominants and co-dominants, broadly similar composition, and diagnostic growth forms classified using the Ecological Systems classification.	https://giscenter.rdc.isu.edu/server/rest/services/EVT_Existing_Vegetation_Type/ImageServer
FVT Fuel Vegetation Type	LANDFIRE layer that represents a modified version of EVT that re-establishes predisturbance vegetation in disturbed areas, allowing the application of fuel model transitions to properly align with logic developed from Fuels Calibration Workshops.	https://giscenter.rdc.isu.edu/server/rest/services/FVT_Fuel_Vegetation_Type/ImageServer
Relative Ecosystem Resilience and Resistance RR	Key soils data across sage-grouse management zones in the Western US which have been made available to assist conservation planning. Also, a simplified index of relative resilience and resistance by assigning each soil temperature and moisture regime/moisture subclass to one of three categories (high, moderate, and low) based on expert opinion.	https://giscenter.rdc.isu.edu/server/rest/services/RECOVER/Resistance_and_Resistance_RR/ImageServer
Soils and Geology:		https://www.nrcs.usda.gov/resources/data-and-reports/ssurgo/stats2go-metadata
gSSURGO	Soils layers derived from NRCS data and prepared to support post-wildfire rehabilitation planning and monitoring. SSURGO data is derived from gSSURGO and provides much more spatially resolved data.	https://giscenter.rdc.isu.edu/server/rest/services/Hosted/Soils_Layers_NRCS/FeatureServer/0
STATSGO	Soils layers derived from NRCS data and prepared to support post-wildfire rehabilitation planning and monitoring. STATSGO data is more general but provides data with a broader spatial extent.	https://giscenter.rdc.isu.edu/server/rest/services/Hosted/Soils_Layers_NRCS/FeatureServer/1
Geology	Basic geology of the western US. These data are provided to support post-wildfire recovery decisions.	https://services1.arcgis.com/z5tlnpYHokW9isdE/arcgis/rest/services/Geology/FeatureServer/4
Precipitation Accumulation Forecast:		https://nowcast.noaa.gov/arcgis/rest/services/nowcast/analysis_meteohydro_sfc_qpe_time/MapServer https://new.nowcast.noaa.gov/help/#lsection=wms-layer-ids
1-Hr Quantitative Precipitation Accumulation (Inches)	NOAA NWS NowCoast time enabled map depicting Multi-Radar Multi-Sensor (MRMS) quantitative precipitation estimate mosaics for 1-hr time periods at a 1 km (0.6 miles) horizontal resolution for CONUS and southern part of Canada.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/analysis_meteohydro_sfc_qpe_time/MapServer/0
3-Hr Quantitative Precipitation Accumulation (Inches)	NOAA NWS NowCoast time enabled map depicting Multi-Radar Multi-Sensor (MRMS) quantitative precipitation estimate mosaics for 3-hr time periods at a 1 km (0.6 miles) horizontal resolution for CONUS and southern part of Canada.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/analysis_meteohydro_sfc_qpe_time/MapServer/4
6-Hr Quantitative Precipitation Accumulation (Inches)	NOAA NWS NowCoast time enabled map depicting Multi-Radar Multi-Sensor (MRMS) quantitative precipitation estimate mosaics for 6-hr time periods at a 1 km (0.6 miles) horizontal resolution for CONUS and southern part of Canada.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/analysis_meteohydro_sfc_qpe_time/MapServer/8
12-Hr Quantitative Precipitation Accumulation (Inches)	NOAA NWS NowCoast time enabled map depicting Multi-Radar Multi-Sensor (MRMS) quantitative precipitation estimate mosaics for 12-hr time periods at a 1 km (0.6 miles) horizontal resolution for CONUS and southern part of Canada.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/analysis_meteohydro_sfc_qpe_time/MapServer/12
24-Hr Quantitative Precipitation Accumulation (Inches)	NOAA NWS NowCoast time enabled map depicting Multi-Radar Multi-Sensor (MRMS) quantitative precipitation estimate mosaics for 24-hr time periods at a 1 km (0.6 miles) horizontal resolution for CONUS and southern part of Canada.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/analysis_meteohydro_sfc_qpe_time/MapServer/16
48-Hr Quantitative Precipitation Accumulation (Inches)	NOAA NWS NowCoast time enabled map depicting Multi-Radar Multi-Sensor (MRMS) quantitative precipitation estimate mosaics for 48-hr time periods at a 1 km (0.6 miles) horizontal resolution for CONUS and southern part of Canada.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/analysis_meteohydro_sfc_qpe_time/MapServer/20
72-Hr Quantitative Precipitation Accumulation (Inches)	NOAA NWS NowCoast time enabled map depicting Multi-Radar Multi-Sensor (MRMS) quantitative precipitation estimate mosaics for 72-hr time periods at a 1 km (0.6 miles) horizontal resolution for CONUS and southern part of Canada.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/analysis_meteohydro_sfc_qpe_time/MapServer/24
Weather Satellite Imagery:		https://nowcast.noaa.gov/arcgis/rest/services/nowcast/sat_meteo_imagery_time/MapServer https://new.nowcast.noaa.gov/help/#lsection=wms-layer-ids
GOES Northern Hemisphere Visible Imagery Composite	NOAA NWS NowCoast time enabled (every 15 minutes) map service for meteorology based on visible spectrum as captured by GOES satellite at 0.5km resolution.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/sat_meteo_imagery_time/MapServer/0
GOES Northern Hemisphere Water Vapor Imagery Composite	NOAA NWS NowCoast time enabled (every 15 minutes) map service for meteorology focused on water vapor as captured by GOES satellite at 2km resolution.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/sat_meteo_imagery_time/MapServer/4
GOES Northern Hemisphere Longwave Infrared Composite	NOAA NWS NowCoast time enabled (every 15 minutes) map service for meteorology based on longwave IR spectrum as captured by GOES satellite at 2km resolution.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/sat_meteo_imagery_time/MapServer/8
GOES Northern Hemisphere Shortwave Infrared Composite	NOAA NWS NowCoast time enabled (every 15 minutes) map service for meteorology based on shortwave IR spectrum as captured by GOES satellite at 2km resolution.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/sat_meteo_imagery_time/MapServer/12
Global Visible Imagery Mosaic	NOAA NWS NowCoast time enabled (every 3 hours) map service for meteorology based on visible spectrum, created as part of the NOAA/NESDIS Global Mosaic of Geostationary Satellite Imagery (GMGSI) product with 8km resolution.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/sat_meteo_imagery_time/MapServer/16

Global Longwave Infrared Mosaic	NOAA NWS NowCoast time enabled (every 3 hours) map service for meteorology based on longwave IR spectrum, created as part of the NOAA/NESDIS Global Mosaic of Geostationary Satellite Imagery (GMGSI) product with 8km resolution.	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/sat_meteo_imagery_time/MapServer/20	
Global Shortwave Infrared Mosaic	NOAA NWS NowCoast time enabled (every 3 hours) map service for meteorology based on shortwave IR spectrum, created as part of the NOAA/NESDIS Global Mosaic of Geostationary Satellite Imagery (GMGSI) product with 8km resolution	https://nowcast.noaa.gov/arcgis/rest/services/nowcast/sat_meteo_imagery_time/MapServer/24	
Terrain:			https://www.usgs.gov/ngp-standards-and-specifications/3dep-product-metadata
Elevation	Digital Terrain Model (DTM) Raster showing land height above mean sea level. Produced by the USGS 3D Elevation Program (3DEP) and current as of 13 Feb 2023.	https://giscenter.rdc.isu.edu/server/rest/services/NED/Topography_WesternUS/ImageServer	https://data.usgs.gov/datacatalog/data/USGS:77ae0551-c61e-4979-aedd-d797abdcde0e
Aspect	Aspect map depicting the azimuth of sloped surfaces across a landscape. Created by the USGS 3D Elevation Program (3DEP) and based on 3DEP Digital Elevation Model. Current as of 13 Feb 2023.	https://giscenter.rdc.isu.edu/server/rest/services/NED/TopographyAspect_WesternUS/ImageServer	
Steep Slopes	These raster data describe the maximum slope greater than or equal to 30 percent. Slope data was derived from Shuttle Radar Topography Mission (SRTM).	https://giscenter.rdc.isu.edu/server/rest/services/RECOVER/SteepSlopes_GTE30PCT/ImageServer	
Slope (Percent)	Raster layer for the western US that shows percent change of elevation over a specific area, in percent. Derived from the pit-filled bare earth NED layer. This layer uses 10 meter pixel spatial resolution.	https://giscenter.rdc.isu.edu/server/rest/services/TopographySlopePercentRise_WesternUS/ImageServer	
Slope (Degrees)	Raster layer for the western US that shows percent change of elevation over a specific area, in degrees. Derived from the pit-filled bare earth NED layer. This layer uses 10 meter pixel spatial resolution.	https://giscenter.rdc.isu.edu/server/rest/services/TopographySlopeDegree_WesternUS/ImageServer	