



NASA Earth Observation Workshop Series – Session 2

Hands on Exercises – Monday July, 20th

1.AppEEARS Exercise

- **Extract by Points**

Step 1. Navigate to AppEEARS

<https://appeears.earthdatacloud.nasa.gov/>

Step 2. Log in using your earth data login

Step 3. Extract NDVI point data for Channel Islands Santa Rosa Fire Torrey Pine Stand

Coordinates:

33.978342176182196, -120.00833129882812

33.978925824863836, -120.01080322265625

33.978342176182196, -120.00942993164062

33.97844517300837, -120.008056640625

33.97875416348688, -120.0105972290039

Step 4. Enter in Channel Islands Fire Dates

May 1st – June 30th, 2026

Step 5. Select HLS NDVI Layer for Download (optional, include a second vegetation index)

Step 6. Title, and submit

- **Extract by Area**

Step 1. Navigate to AppEEARS

<https://appeears.earthdatacloud.nasa.gov/>

Step 2. Log in using your earth data login

Step 3. Extract NDVI area data using the downloaded GeoJSON (shapefile) for Iowa

Step 4. Enter in dates: July 1st, 2020 – September 30th, 2020

Step 5. Select HLS NDVI

Step 6. Select file name date formation

Step 7. Select geographic projection

Step 8. Title and submit

2. QGIS NDVI Change

Step 1. Open QGIS

Step 2. Download and unzip NDVI raster images

Step 3. Drag and Drop Raster images into QGIS

Step 4. Change symbology and add color ramp

Step 5. Do for second image

Step 6. Open Raster > raster calculator > calculate NDVI change (*NDVI Change = Current NDVI – Historic NDVI*)

Step 7. Change symbology for NDVI change layer

Step 8. Add open street maps, explore data