The submitted dataset, **“Louisiana Coastal Wave & Hurricane Data—SPTC Cycle 1,”** supports research on wave impacts and embankment design/vulnerability assessment in coastal Louisiana. Its purpose is to provide historical and interpolated coastal wave conditions and hurricane activity for statistical wave modeling, spatial interpolation, and wave-pressure calculations.

The package includes **four files**:

1) A .xlsx workbook of **historical wave data from 13 coastal Louisiana stations**, one worksheet per station (**213 KB**, *Historical\_wave\_data\_13\_stations*.xlsx),

2) A .xlsx file of **historical hurricane high-water-mark records** for coastal Louisiana (**12 KB**, *Hurrican\_Watermarks\_Louisiana*.xlsx), and

3) A **geospatial dataset** containing the **interpolated 20-year return-period wave heights** across coastal Louisiana (**1.4 MB**, Geospatial\_Data\_Interpolated\_20yr\_wave\_height.xlsx).

4) A .xlsx file of budgetary data.

The top three files are **researcher-generated tables and layers** compiled from **observed NOAA coastal station data and National Hurricane Center records**, with processing performed through **statistical interpolation (GEV analysis and ordinary kriging in Python)** and **geospatial mapping in QGIS** to ensure spatial consistency for analysis.