

Tide Prediction

Beachfront's Tide Prediction service utilizes the python library Pytides to predict past and future tides. These predictions are based upon harmonic constituents estimated from historical sea level buoy data. The service accepts a latitude/longitude pair and a date time group and returns the current tide level at that time, as well as the minimum and maximum of the 24 hour period following the time.

To use:

Individual Queries:

TidePrediction.stage.geointservices.io accepts the following keys:

- *lat= decimal degrees between -90 and 90*
- *lon= decimal degrees between -180 and 180*
- *dtg= Date/Time in format : YYYY-MM-DD-HH-MM*

Sample Query:

```
curl -X POST -d 'lat=-33.85&lon=151&dtg=2016-05-31-0-1'  
"https://tideprediction.stage.geointservices.io/"
```

Batch Queries

TidePrediction.stage.geointservices.io json collections in the format:

```
{  
  "locations": [  
    {  
      "dtg": "some_dtg1",  
      "lat": "some_lat1",  
      "lon": "some_lon1"  
    },  
    {  
      "dtg": "some_dtg2",  
      "lat": "some_lat2",  
      "lon": "some_lon2"  
    }  
  ]  
}
```

}

Sample Query:

```
curl -X POST -H "Content-Type: application/json" -d '{
  "locations": [{"lat": 73.63008647322661, "lon": -81.5557487110026, "dtg": "2015-12-20-09-36"}]
}'
https://tideprediction.stage.geointservices.io/tides
```