



PH TIDES

Mobile Application

User Manual

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General Information

Background

The National Mapping and Resource Information Authority (NAMRIA) is the central mapping agency of the Philippines. It is a Philippine government agency attached to the Department of Environment and Natural Resources (DENR). NAMRIA's Physical Oceanographic Division (POD) under the Hydrography Branch manages tidal data from the data acquisition, processing, and data analysis. Using the collected data from the different tide stations across the country, POD generates various tidal information predictions annually. Daily tide prediction data is published in the NAMRIA website. Additionally, an annual publication of Tide and Current Tables is available for a fee in NAMRIA Map Sales Offices nationwide. The publication includes data on hourly heights, high and low waters, sunrise and sunset schedules among others. These data can also be requested through the Physical Oceanography Division. In the past, stakeholders have either limited access, buy the annual publication, or to request from the POD; However, with this development, the application will be freely available for download for all interested users through the PH TIDES mobile application.

Application Overview

PH TIDES is a mobile application developed by NAMRIA to provide a more convenient way for users to search, view, and download tidal data for several tide stations in the Philippines. With this application, users will be able to:

- View Sunrise and Sunset data
- View High and Low Water data
- View Predicted Tidal Information in a graphical format
- View the metadata of specific tide stations (ex., type of sensors, location, etc.)
- Filter results by Date and Tide Station
- Download Predicted Data of Hourly Heights
- Download Predicted Data of High and Low Waters
- Download Sunrise and Sunset Data
- Download Moonrise and Moonset Data
- Contact NAMRIA for other Information related to tide and other related products and services
- Participate in improving the mobile application through the Survey Forms and Submitting Feedback

Compatibility

The PH TIDES is a cross platform application compatible with Android versions 5.0 or later,

as well as iOS 12.4 or later. It can be downloaded on mobile phones or tablets.

Help

Any questions, concerns, or issues regarding the app, contact the PH TIDES support team. By clicking the “HELP” button, the app will open a screen where users can choose several options to submit a concern. Users may also contact our support team by phone or direct email

- hb.pod@namria.gov.ph
- (02) 8245-9498

System Summary

PH TIDES uses React Native as its main programming framework. Visual Studio Code is the software used in most of the coding process of the user interface. The backend development employed PHP Laravel. A Web App based on SQL Database serves as the repository of all the data contained within the app. The overall design and aesthetics of the app are made using Adobe XD, Adobe Illustrator, and Adobe Photoshop.

Explanation of Tide Prediction

The values displayed in this application are predicted hourly heights and times and heights of daily high and low water for primary tide stations. The time used is 120 degrees east. High water is the maximum height reached by each rising tide, and low water is the minimum height reached by each falling tide. Tide heights shown in this application are in meters and reckoned from, mean lower low water (MLLW), the datum of sounding on charts of the locality. Downloadable PDF files are also available for hourly heights for primary tide stations, while files for both primary and secondary tide stations are available for high and low water. Additionally, sunrise/sunset and moonrise/moonset schedules are also downloadable in the application.

Other Data Requests

The PH TIDES Mobile App does not have a login feature and does not require an account. It also does not have any in-app purchases. However, some NAMRIA data with specific requirements may be purchased by contacting the client services unit of NAMRIA or by visiting its different map sales offices.

- E-mail: csu.hb@namria.gov.ph
- Website: www.namria.gov.ph

Download and Installation



For Apple Devices:

Search "PH TIDES" in the App Store. Install the application.



For Android Devices:

Search "PH TIDES" in the Google Play Store. Install the application.



How to Use

Home Page

The PH TIDES Mobile Application does not require users to login or create an account. It will directly open the Home Page which has 4 options:

- *Predicted Tides,*
- *Download Tide Predictions,*
- *About Us,* and
- *Help*

Each option will lead to its corresponding page.



Predicted Tides Page

Clicking the Predicted Tides Button will direct the users to the data page where the user can preview Tidal Data of the chosen Location and Date.

Users can choose the Location and Date by clicking on their respective fields. The locations available corresponds to the location of the NAMRIA Tide Stations across the Philippines.

In default, the initial data shown is of *Manila Bay* and the *current date*. The page displays the following data:

- *Sunrise and Sunset Schedule*
- *High and Low Tide Values*
- *Graphical Representation of Hourly Heights*

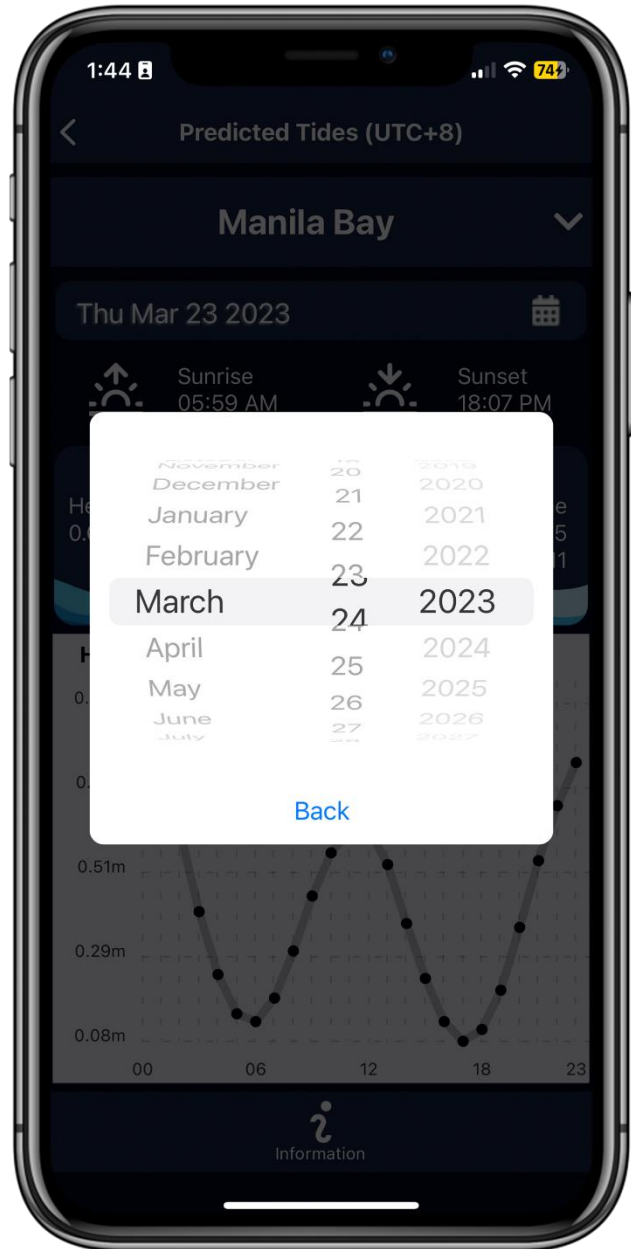
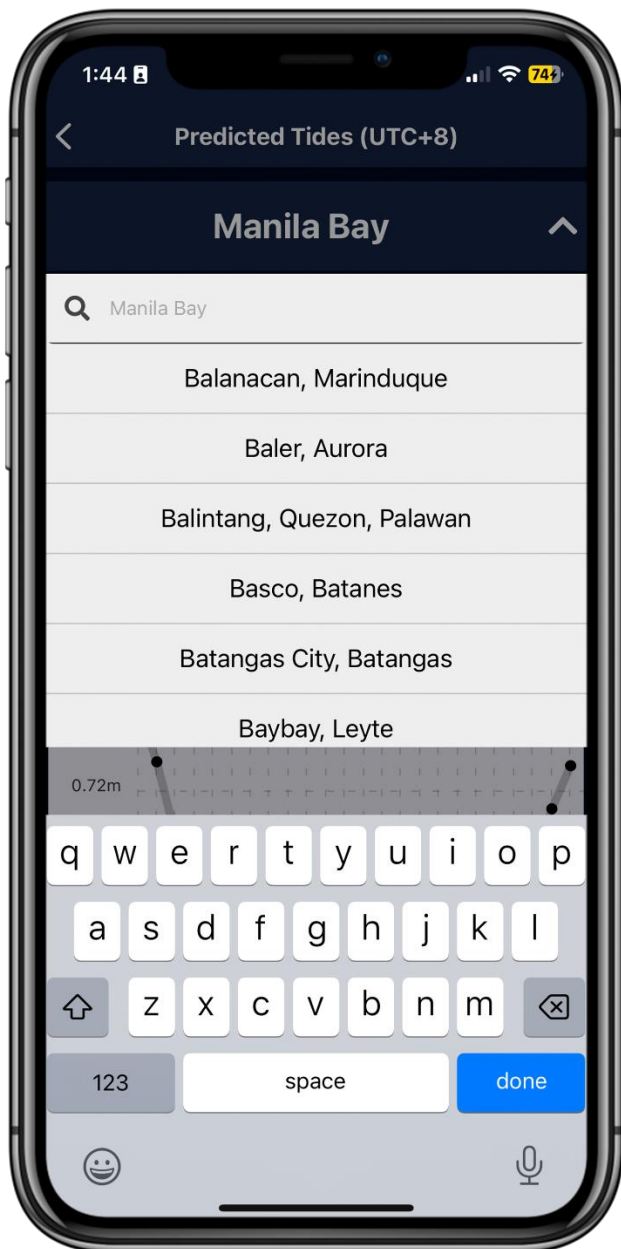
Users can drag the graph to the left or right to view data of the remaining hours of the day. Tooltips, accessed by clicking dots on the graph curve, are available which shows the tidal height and the corresponding hour of the day.

Tide Station Information can be viewed by clicking the Information button on the bottom of the page.



Location and Date Selection Page

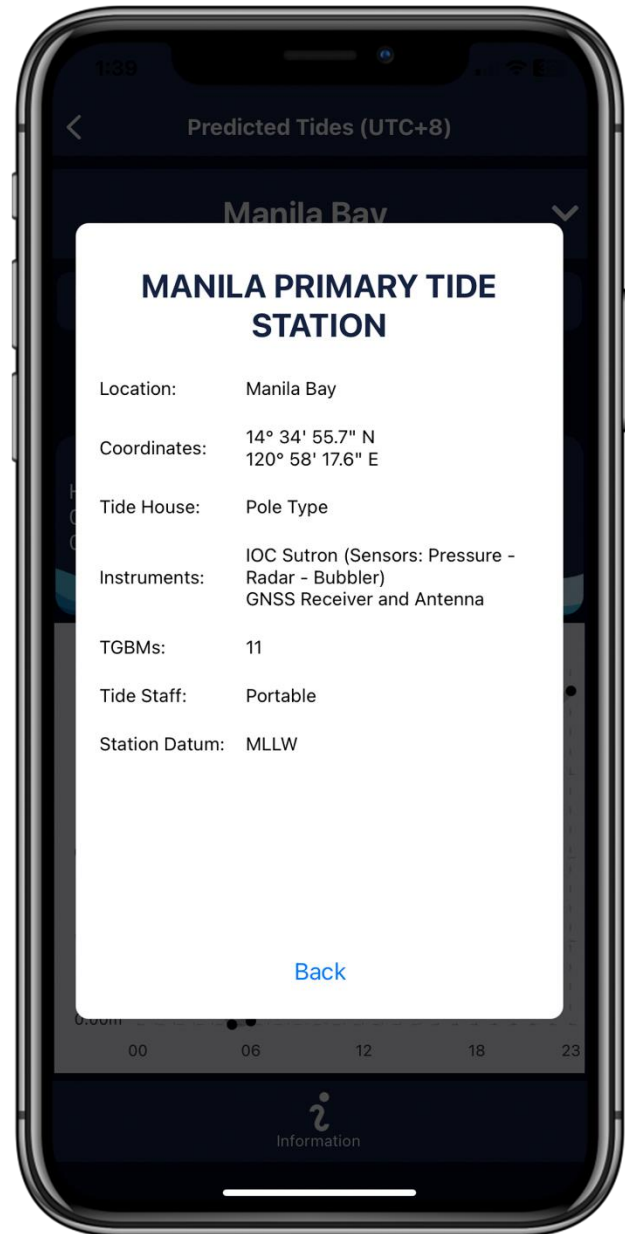
The Dropdown menu for the Location enables users to choose from the different tide stations across the country, while the Date Picker allows for the selection of desired Date of tidal data to be previewed.



Tidal Station Information Page

Clicking the Information button at the bottom part on the page will let users view the different information regarding the chosen tide station which are the following:

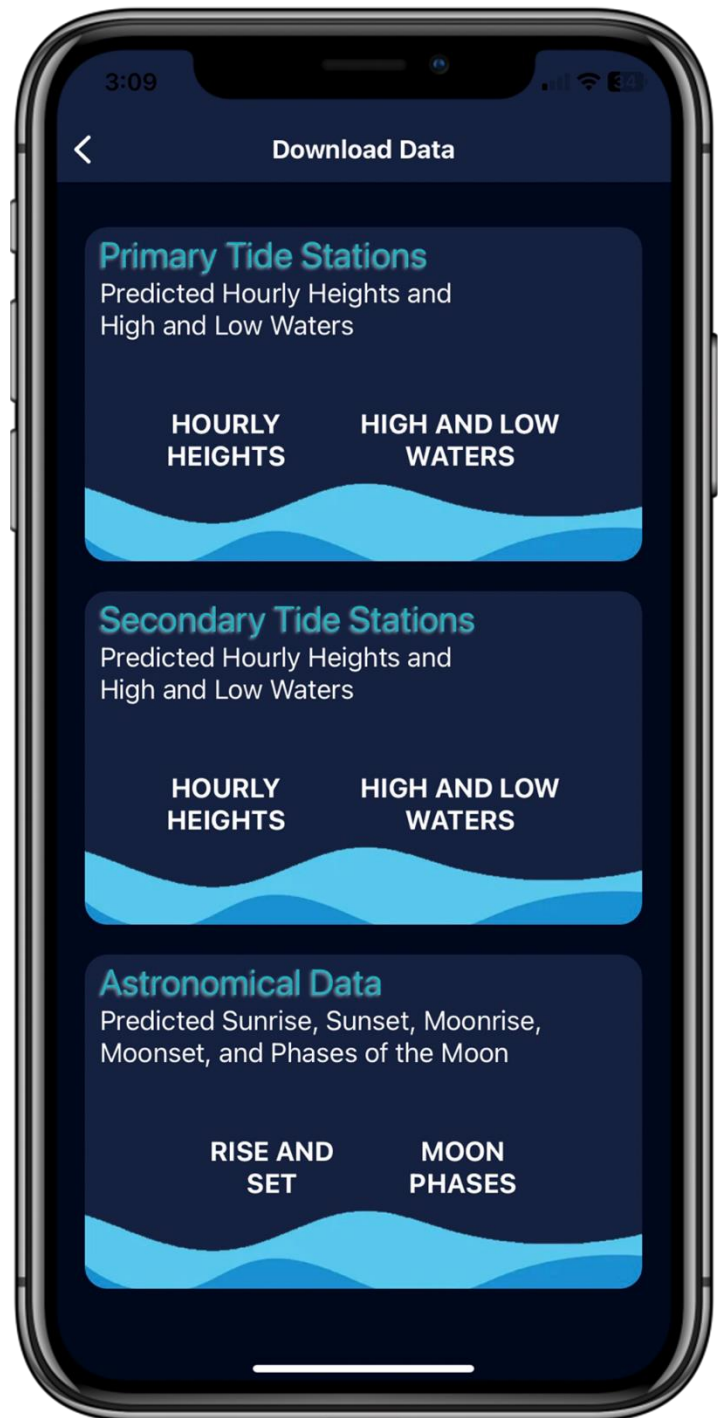
- Location
- Coordinates
- Tide House
- Instruments
- TGBMs
- Tide Staff
- Station Datum



Download Tide Predictions

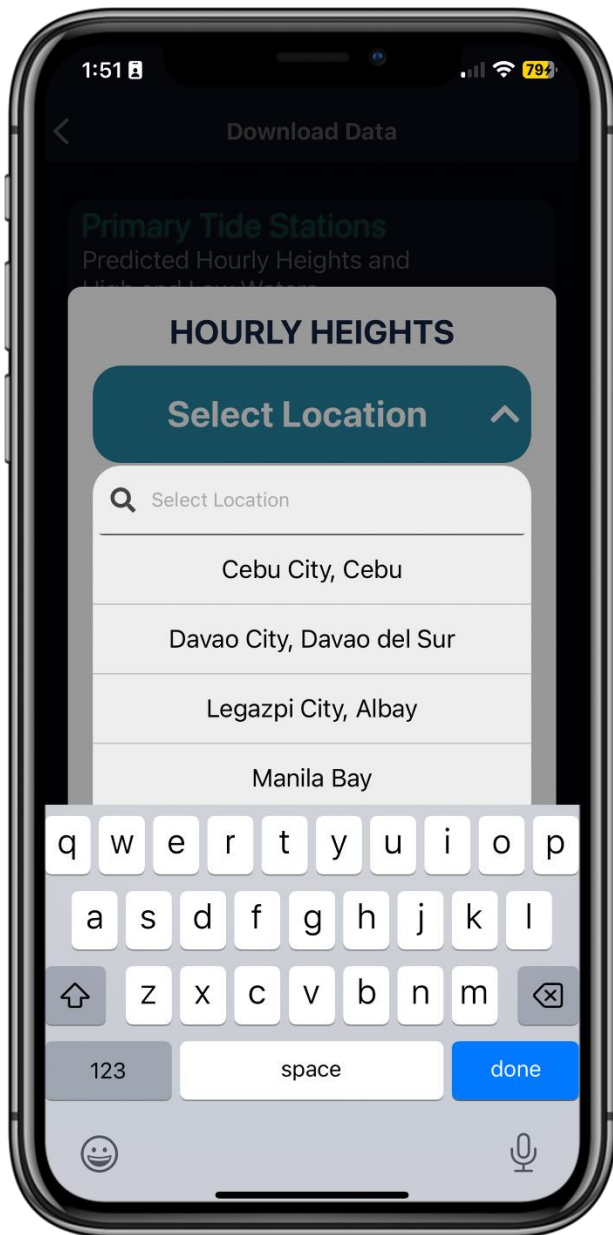
The Download Tide Predictions Page allows users to choose from the various tidal data files available for download in PDF format. The data are provided by the Physical Oceanography Division of NAMRIA. These datasets are identical to what are preview in this mobile application and the Tide and Current Tables Publication.

There are 3 categories available namely Primary Tide Station, Secondary Tide Station, and Astronomical Data. For the first 2 categories, the datasets available are the same. These are the Hourly Heights and the High and Low Waters. For the Astronomical Data, the datasets available are Rise and Set and Moon Phases. All downloadable data in this application can also be found in NAMRIA's annual publication: The Tide and Current Tables.



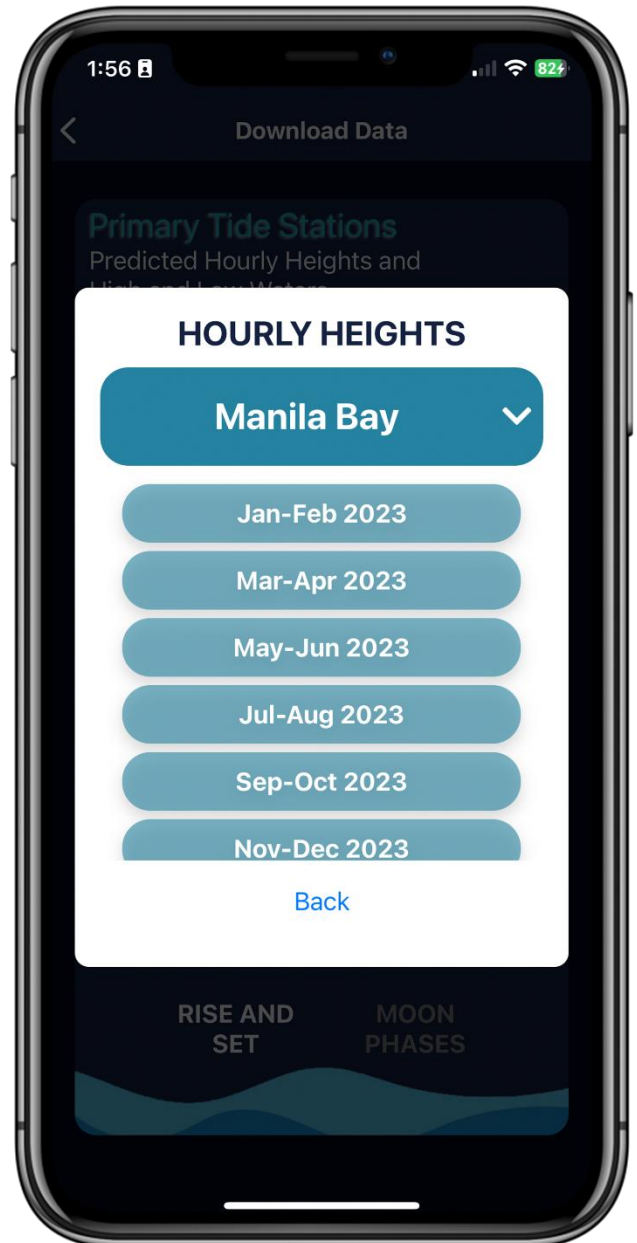
Download Data Location Selection

Clicking either Hourly Heights or High and Low Waters will open a pop-up window, with a dropdown menu for location. Users may choose the location of their desired data.



Download Data File Selection

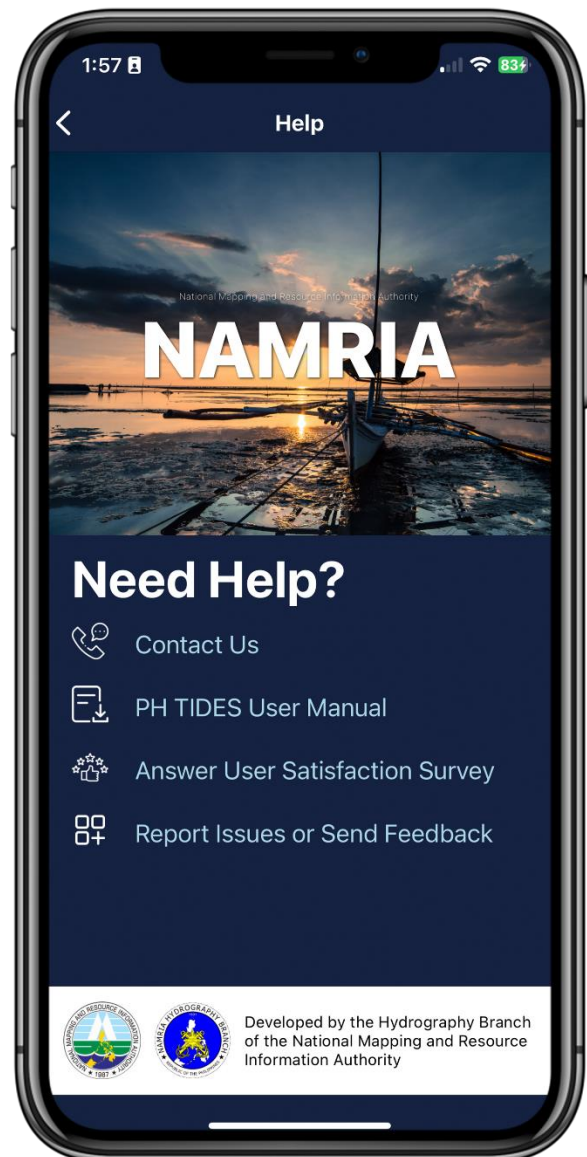
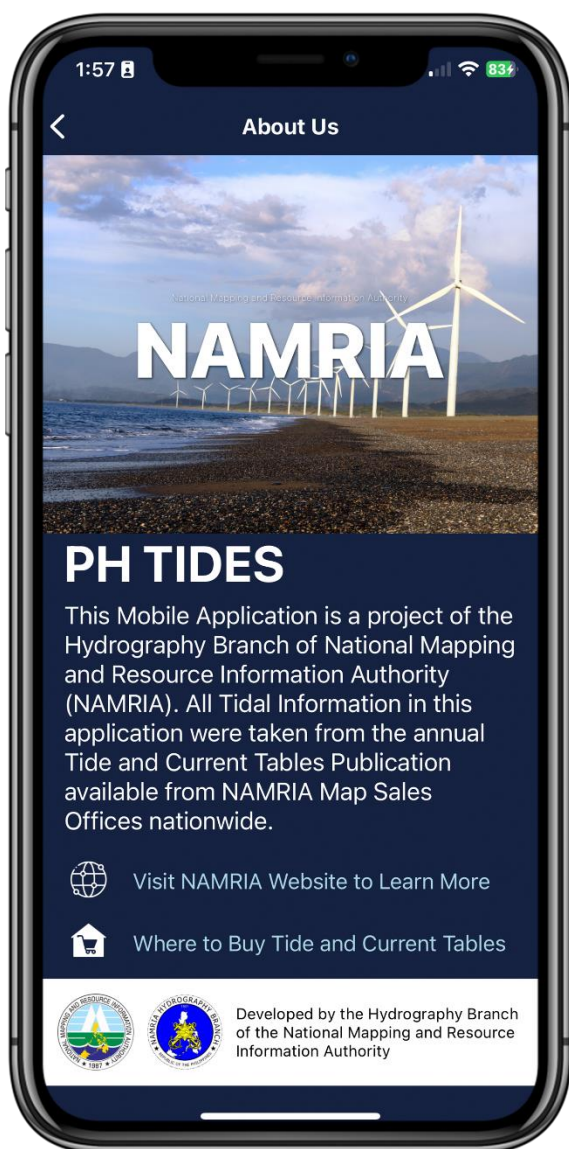
Upon selecting the location, users will be able to choose their desired file to download. Downloadable data may change depending on the availability of the data for each station.



About Us and Help Page

The About Us Page shows more information on what the project is about and the agency behind it. It also includes a direct link to the NAMRIA Website and link to the contact details of Map Sales Offices.

The Help Page gives users several ways on how to contact the people managing the project. This section also includes the User Manual, Satisfaction Survey Form, and Issues/Feedback Form.



CREDITS AND REFERENCES

Graphics and Design:

- iPhone Mockup Photo by [Mediamodifier](#) on [Unsplash](#)
- Samsung Mockup [Free Samsung Galaxy S10 mockup - Mockups Design \(mockups-design.com\)](#)
- Feedback icon <https://www.flaticon.com/author/s/hight-quality-icons>
- Rating icon <https://www.flaticon.com/author/s/photo3idea-studio>
- Phone Call & Tide Data icon <https://www.flaticon.com/author/s/freepik>
- Download icon <https://www.flaticon.com/author/s/color-cods>