

# REEFTIPS

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MARIANAS VARIETY NEWS AND VIEWS

## Polluted waters and overcrowded beaches. Sound too familiar?

The island's white sandy beaches and offshore coral reefs are some of its most famous features that hold symbolic value to locals and tourists alike. Because of Saipan's beauty, it is no doubt that the tourism sector is a primary contributor to the CNMI economy. But to what extent will these natural resources be exploited before they completely deteriorate?

Under the Division of Coastal Resources Management Internship, I worked on the *User Capacity Assessment of Prime Tourist Sites* project. This study aims to determine management practices for sustainable development of the tourism industry. By understanding the predominant and increasing pressures within the industry, capacity limits can be identified and better decisions can be made to maintain the environmental health of these sites.

Within the *User Capacity Assessment of Prime Tourist Sites* project I was tasked to create an economic valuation of the marine sports industry in Saipan, using



## The Cost of Our Lagoon

### User Capacity Assessment of Prime Tourist Sites

addendums from MSO permit renewal applications in 2019. Marine Sports Operators provided a value for each permitted activity they offer to clients. Some of the activities included were banana boating, jet skiing, parasailing, wakeboarding, snorkeling, SCUBA

diving, floaters/aqua cycle, kayaking, stand up paddleboarding, windsurfing, and Managaha transfers/lagoon tours, amongst others.

Spatial data was generated through ArcGIS and ultimately portrayed the different areas of

operation. This was my favorite part of the study because not only did I get to see which areas contain the most activity, I also saw which of those areas generate the most value for the CNMI. The total was \$3,822,019.19, this number coming directly from permitted

marine sports operations alone. Not including previous coral ecosystem valuation studies, this estimate should be considered a conservative value for the CNMI. Generating this number can help other state agencies and legislators make informed decisions when managing the CNMI's most valuable resources, such as the Grotto.

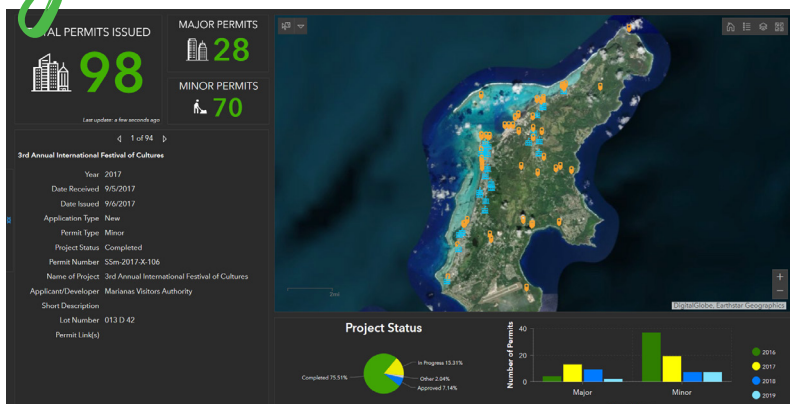
The conflict between financial insecurity and environmental degradation proves that traditional investments in a strong economy do not always contribute to a healthy environment. This shows how "the two are strongly interconnected, both of which are equally important to our growth and wellbeing."<sup>1</sup> Tourist congestion is not only about the number of visitors but about the capacity to manage them. The challenge is to find methods to accurately measure and value these ecosystem services. By identifying the economic value of our marine ecosystems, stakeholders and policy-makers will begin to understand this crucial relationship. Such information can support wise long-term decisions, which is what we all need – government leader or not – in preserving our coastal resources.

<sup>1</sup>**Works Cited:** Tourism value of ecosystems in Bonaire (pp. 1-7, Publication). (n.d.).

## INFORMED FOR A Brighter FUTURE

For a handful of years now, our tiny island of Saipan has been a popular location for a myriad of development projects thanks to its ideal paradise destination, steady tourism industry, and not to mention its natural beauty and allure. In the near future, a few of these development projects are expected to turn into completely refined hotels, resorts, townhouses, and even a casino! With that said, it is evident that our island continues to experience change every single day. It is absolutely vital to obtain information on these developments in order to better understand their effects on the environment and society. Regardless of size, these development projects have the potential to stunt Saipan's growth and of course, deplete its finite resources.

As an intern under the Planning section for the CRM Summer Internship Program, my project, which takes place



at BECQ, involves the creation of an interactive dashboard that contains key data taken from permit applications for development projects on Saipan. This dashboard is intended for the public and other agencies to view the data geospatially. With the use of a reliable PC and software tools such as Microsoft Excel and ArcGIS, my project becomes much easier to accomplish. When carrying out this project, I follow a general set of steps. First, data is gathered from all the permits issued by DCRM

on all development projects and entered into an Excel spreadsheet. Second, the spreadsheet is then exported to the ArcGIS software to display the locations of the projects. Third and lastly, the data is uploaded online so that it can be used to generate an Operations Dashboard (an online app used to build the interactive dashboard). The dashboard will contain an interactive map, charts, and indicators that provide information on Saipan's projects and their permits. Currently, only Major and Minor Sited permits

issued for Saipan are available and you can expect to see the launch of this dashboard by the end of September 2019. This is a living application, so more data will be added as more development projects are permitted.

Dale M. Lewis, a GIS expert, strengthens the purpose of my project when he says: "maps composed of easily recognizable information about land-use issues affecting the welfare of local residents and their natural resources would facilitate communal societies to make technically improved land-use decisions within the community." As I near the end of my internship, I truly hope that this dashboard will prove



to be a great asset to the public and other agencies. Its' significance lies in its' ability to help others easily gather information on development projects and as a result, help them better understand how these developments affect the resources of our precious island as well as its' people. Hopefully, with a greater understanding of these projects and their unavoidable impact, we, as a community, will be one step closer to a future devoted to a balance of continued growth in the development and protection of our island home.

<sup>1</sup>**Works Cited:** Lewis, Dale M. "Importance of GIS to community based management of wildlife: lessons from Zambia." *Ecological Applications* 5.4 (1995): 861-871.

