

Summary

On June 5th, Pro Peninsula, together with Grupo Ecologista Antares (GEA) and the Municipality of Loreto held a meeting focused on water and the natural resources in the municipality of Loreto and the adjacent Marine Park. The themes of the presentations ranged across the capacity and infrastructure of fresh water in Loreto, best practices for desalinization, and resources in Loreto Marine Park.

A diverse collection of attendees participated in the meeting, including Loretanos, developers, local government representatives, academics, foreign residents, and NGO community leaders from La Paz and Loreto.

Water in Loreto: Capacity and Infrastructure

To kick off the meeting, Sergio Morales Polo, from the organization GEA, gave a panorama of Loreto, the availability of water in the area and its use in the municipality, and also the demographic impacts from new tourism and condominium developments. The most impressive figure from the presentation was that for every room constructed, 20 inhabitants are added to the community, taking into account service employees and their family members. Sergio linked this statistic to the urban development plan which calls to add 20 thousand rooms to Loreto, and presented a scene of enormous overexploitation of the water resources there. He finalized emphasizing the need for better water management, a limit of 6 thousand rooms in the region, construction of microdams, and the installation of a desal plant to the north of the Park, together with strong and continuous outreach efforts in the community.

Hugo Quintero Maldonado de SAPA (Sistema de Agua Potable y Acantarrillado) Loreto dio seguimiento a la discusión con su plática enfocada en las actualidades de la infraestructura del sistema de manejo y abastecimiento de agua en el municipio de Loreto. Hugo destacó que los nuevos desarrollos no pueden contar con el uso de agua que abastece a los ciudadanos de Loreto, sino que tendrán que depender de plantas desaladoras. Hugo especificó que al norte del parque sería un lugar más ideal para una planta así. Hugo también explicó el sistema de cobertura de agua en Loreto, y el sistema de cobros. También habló de la necesidad de ajustar el sistema de cobros, facturación, control de fugas, y una modernización del sistema del agua en Loreto. Hugo también mencionó la necesidad para mayor democratización de la administración del manejo de agua, y comentó que ciudadanos tendrían la oportunidad de participar en la administración del Consejo Técnico a través de sus organizaciones legalmente constituidas.

Desalinization

Patrick Freeman, from Sherwood Design Engineers, was unable to deliver his talk titled “Best Practices for Desalinization in the Loreto Region,” but Chris Pesenti gave a summary of the presentation. The talk focused first on the technical process of desalinization:

Intake

- Offshore intake
- Beach wells
- Brackish wells

Pre-treatment

- Filters organics and larger sediments to avoid damage to the membrane. Can be 50% of the plant cost.

Process

- Thermal
 - Multiple stage flash evaporation
- Membrane
 - Reverse osmosis

Products

Brine/Concentrate

- Offshore outfall
- Offshore outfall with sparging tubes
- Injection into already compromised treatment ponds or lagoons

Purified Water

Storage and distribution

Overriding Principles

- Electricity use can be 50% of the total cost
- There must be conformity with a regional growth plan – Desal is only on tool as part of a more ample plan and solution that includes conservation, infrastructure improvements, and management of regional demographic growth
- Risk of losing conservation measures and programs
- Metering system must be functioning beforehand
- The costs fluctuate – potentially impacting the local population
- There must be integration with regional infrastructure needs: runoff, electricity, transportation
- Agreement on ownership
- A centralized scheme instead of decentralized
- Collaboration and involvement of all stakeholders

Resources in Bahía de Loreto Marine Park

Leonardo Huato of CIBNOR presented the results of his investigation into probable impacts of Loreto's development on the marine environment. He listed various impacts generated by desalinization, sport fishing, and commercial fishing. Leonardo spoke about the risk of mortality in marine populations because of hypersaline water, disruption in life cycles, the vulnerability of benthic communities, and a fall in the recreational attraction of the coast. He highlighted that the impacts of desalinization depend on factors that remain undefined: location, technology selected, the volume and scale of the operations. Speaking about sport fishing, Leonardo emphasized that there official information about sport fishing captures doesn't exist, and that there is a need for more studies and research. He said that commercial fishing data in the zone is also scarce, but that capture of fish, sharks, and rays in the waters of Loreto climbed between 1998-2004. He again recommended more studies, together with a monitoring plan and a plan for sustainable use of the resources.

Catalina López continued with her talk about Potential Impacts to Marine Resources and Environments. Catalina focused her study on the species *Cabrilla sardinera*, chosen because it represents 17% of the total capture off the Loreto coast, and 94 % of the cabrilla captured – or in other words, it has considerable importance in the region in terms of capture and economic value. Catalina offered several potential impacts such as: the increase in fisher activity (commercial and sport); modification of the coast which implies a loss of habitat (mangroves and seaweed beds); and from a desalinization plant, the alteration of bottom-dwelling communities, and the discharge of brine. Catalina spoke of the necessity to establish stricter regulations within the park, to take into account the relation between habitats and species, as well as recognizing the economic importance of the natural resources and what are the long term impacts both regionally and locally.

Key points

During the presentations and discussions, several key themes arose that are worth mentioning here:

- 1) The necessity to institutionalize a collaborative instrument for the management of water in the region for the next 10-12 years.
- 2) What are the most effective tools that the local government and SAPAL can implement to bring awareness to the community about water conservation?
- 3) The need to study the legality of FONATUR's involvement in the management of water.

download these presentations at:
<http://www.propeninsula.org/content/1/3/20.html>