









Proposal of water management solutions for Koster Islands

Draft June 14th, 2016

KOSTER ISLAND'S ECO WATER RANKING



100		Summer lodge for rent at Koster <small>Donec ultricies sollicitudin nulla, a imperdiet tortor sodales ut. Fusce et elementum dolor, vitae eusmod libero. Donec vulputate nulla in diam pretium elementum. Etiam vel cursus nisi. Vivamus venenatis fringilla nibh, at sollicitudin lectus...</small>
86		Kostergården <small>Donec ultricies sollicitudin nulla, a imperdiet tortor sodales ut. Fusce et elementum dolor, vitae eusmod libero. Donec vulputate nulla in diam pretium elementum. Etiam vel cursus nisi. Vivamus venenatis fringilla nibh, at sollicitudin lectus...</small>
82		Hotel Koster <small>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed eget congue sapien. Aliquam porttitor quam nec magna scelerisque molestie.</small>
76		Ks Summerstay <small>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed eget congue sapien. Aliquam porttitor quam nec magna scelerisque molestie.</small>
72		Charming house for rent <small>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed eget congue sapien. Aliquam porttitor quam nec magna scelerisque molestie.</small>
67		at Kari's <small>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed eget congue sapien. Aliquam porttitor quam nec magna scelerisque molestie.</small>
See more		

Koster Island's **SustIsland platform** will allow to create profiles for local businesses, public entities, private homeowners, individual water wells, transportation vehicles (land and water), etc.

Each profile allows to **publicly showcase in a high level of detail the water related improvements/strategies** (and sustainable improvements overall if so desired) that are implemented. It allows to set **future objectives** and show the progress that is being made towards achieving them. The profiles can present **real-time data** from smart meters (water levels, water consumption, etc.), allow to **upload images** and **videos**, etc. SustIsland can also present a water efficiency (or sustainable) **ranking**. **Online purchases** can also be made.

PEOPLE ENTITIES AREAS PRODUCTS [Loguear](#)

99

01 de Costa Rica
04 Posadas últimos meses
10 Buenas prácticas

Posada Rural

Tel: +506/2471-1447
Fax: +506/2471-1148
posada@posadaoasis.com

Hereda, Costa Rica
distrito al centro de Villa Rica

RESERVA

Datos generales

Posada Rural ofrece alojamiento en Culebra Negro, un sitio ideal para quienes buscan las comodidades de un hotel, pero en un entorno natural de gran belleza, tranquilidad y frescura. Posada es un alojamiento con encanto y estilo que ofrece una experiencia única en la zona de Culebra Negro, un sitio ideal para quienes buscan las comodidades de un hotel, pero en un entorno natural de gran belleza, tranquilidad y frescura.

Culebra Negro es un sitio ideal para quienes buscan las comodidades de un hotel, pero en un entorno natural de gran belleza, tranquilidad y frescura.

ACTIVIDAD LOS ÚLTIMOS 90 DÍAS

99 TU NIVEL SOSTENIBLE

10 TUS BUENAS PRÁCTICAS

1 Ahorro de energía
2 Ahorro de agua
3 Reciclaje de Residuos

Tu nivel Nivel de tu vecindario Nivel TOP Sostenibilidad

ACTIVIDADES MÁS RECIENTES

10 de junio, 2013: insertado el consumo mensual de electricidad
8 de junio, 2013: insertado el consumo mensual de agua
1 de junio, 2013: insertado la práctica de ahorradores de grifos
25 de mayo, 2013: subido en el ranking posición 99
25 de mayo, 2013: marcado la práctica de uso de lámparas de bajo consumo

BUENAS PRÁCTICAS

Agua

Revisar y comparar los factores del agua
Tiene sanitarios que ahorran agua

Energía

En invierno no climatiza por encima de los 20°
La calefacción únicamente se enciende en invierno laboral
Cuenta con bombillas de bajo consumo
Utiliza luz natural
Revisa y consume los factores de la luz

Reciclaje de Residuos

Usa productos de limpieza ecológicos
Compra productos a granel
Recicla los residuos

OBJETIVOS

50.000 toneladas de PET recogidas en 2013.	60% logrado	Quedan 297 días
Bajar el consumo de electricidad en un 20% en 5 meses	90% logrado	Quedan 45 días
Reducir las emisiones de CO2 en un 25% en 10 meses	20% logrado	Quedan 127 días

OTROS DATOS

Oficina

500 trabajadores
2000 m²
4890 KhW ahorrados

Fotos

Posada Rural ha subido una foto (hace 3 horas)

Rural Posada foto de una bonita ciudad.

Escribete algo...

Videos

Posada Rural ha hecho una consulta (hace 5 horas)
Queremos cambiar el menú del desayuno. ¿Qué opción te gusta más?

Acerca de nosotros

Somos Sostenible Reference
También colaboran en este proyecto
Contacta con nosotros
Secciones

SustIsland allows to 'rub off' points between businesses and their suppliers, clients, citizens, tourists, municipality, products, etc. **encouraging a local sustainable economy.** The more points, the more tangible **benefits** one gets.





It is culturally accepted in Scandinavia to have lodgings (hostels, etc.) charge separately for towels and bed linen. We are also used to seeing low cost air carriers charge for every service separately as to help keep costs low. Along similar lines, it is suggested to have guests (and ideally local islanders too) **pre-pay**

for their **water consumption** which they can monitor in real-time. Significant water savings can be expected from this measure alone as it literally puts value to every drop of water that gets consumed. It is suggested to offer it along with an awareness campaign as to have it be perceived as the positive solution that it is to help safeguard the Islands' water independence. This solution can be particularly useful for billing the clients that consume water from the hotel's desalination plant.



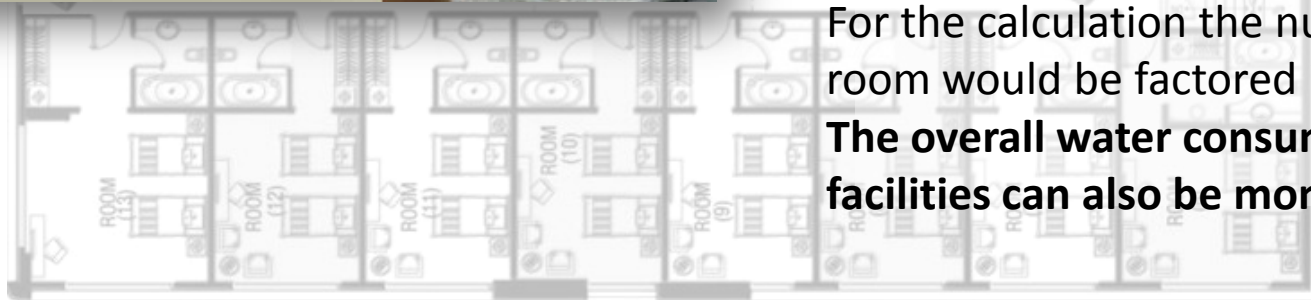


Water sensors can monitor the water consumption of every hotel room in real-time. It enables the guests to see on dedicated screens, on the TV, and/or on their mobiles:

- their real-time water consumption
- the average consumption of the rest of the guests
- the average of the 20% that consume the least amount

For the calculation the number of guests per room would be factored in.

The overall water consumption for all the facilities can also be monitored.





Apartment hotels can in addition install a hardware/software solution that allows the guests to see the **break-down of the main locations of water consumption** (washing machine, dishwasher, shower...).





Awareness messages can be placed at the main locations where the users will be using water. The messages should be exquisitely designed so that, ideally, they are perceived by the guest as an asset to the overall experience, versus a psychological burden.





Awareness leaflets can be distributed at various locations (tourism offices, reception desks, ferries, etc.).





A **video** can be produced showing the effort that the Koster Islands (including examples by the hotels, etc.) overall are putting in towards being as responsible as possible with its water management and how everyone, including the tourists, play an important role in making that effort a success. It can be displayed in ferries, web sites, tourism offices, etc.





Training programs for the employees and islanders on water efficient management can be elaborated and implemented.

Why getting serious about sustainability needs to start with training

Grant Ricketts

Monday, April 29, 2013 - 6:30am





Sustainability **tours** can be offered to help showcase what gets done towards helping improve water management.





Selling **household water monitorization sensors to the tourists** can be considered as well as having an interactive map illuminate the cities they live in. The goal: A visit to the Koster Islands helps tourists become high-tech water efficiency experts, contributing towards saving their money and the planet. It can also act as a gamified loyalty program that allows the guests to gain special discounts on their next Koster Islands visit based on their domestic water consumption.





Implementing several of the listed strategies should capture the interest of the media with little effort (especially in the future when sharing actual results of how much water has been saved). Independently, it is suggested to consider **working with a PR/communications firm** as to elaborate traditional press releases and social media stories. This will help spread water efficiency awareness, improve the project's overall public opinion and attract more guests.





Water

Basic

- 1-2-3 Storage (tanks, roof, ponds...)
- 1-2-3 Water runoff infiltration
- 1-2-3 Waterless urinals
- 1-2-3 Aerated faucets / showerheads
- 1-2-3 Dual flush/low consumption/compressed air WC
- 1-2-3 Xeriscaping (planting autoctonous vegetation requiring no irrigation)
- 1-2-3 Xeriscaping

Recommended

- 1-2-3 Aquatron toilet system
- 1-2-3 Compact on-site sewage treatment
- 1-2-3 Water leak alarm
- 1-2-3 Porous pavement
- 1-2-3 Constructed wetlands / Reed beds
- 1-2-3 Drip irrigation
- 1-2-3 Shower water consumption meter
- 1-2-3 Water smart meters
- 1-2-3 Automatic faucet & urinal
- 1-2-3 Greywater reuse
- 1-2-3 Fog collection

Ambitious

- 1-2-3 Living Machine
- 1-2-3 Dry toilets
- 1-2-3 Symbiotic purification (Golfrat)
- 1-2-3 "Closed circuit" water circulation (treatment/purifying waste water)
- 1-2-3 Closed-loop Water Recovery System (Space)
- 1-2-3 Multi-Function Dust/Smog Suppressor
- 1-2-3 Atmospheric water generator
- 1-2-3 Reverse osmosis
- 1-2-3 Ultraviolet (UV) purification
- 1-2-3 Salt water chlorination
- 1-2-3 Ozone water treatment
- 1-2-3 Chlorine dioxide generator
- 1-2-3 Algae-based waste water treatment
- 1-2-3 Recycling closed-loop shower
- 1-2-3 Water body 'Restorer'
- 1-2-3 Leak detector
- 1-2-3 Condenser for potable water
- 1-2-3 Purification: UV/ozone/reverse osmosis...
- 1-2-3 Faucets with sensors and timer
- 1-2-3 Dermashle navers (Grasscrata)

The listed products and strategies can help improve water management further still.

For more information see the water section at:

http://www.sustpro.com/US/en-US/sustainable_architecture_and_construction-m31881.htm





SustIsland can represent the stepping stone towards having Koster Islands become a **world wide reference in sustainable** and **'smart' islands** and lead other islands to also participate.



Sustainable Reference

