

MERGING TRADITION WITH MODERN TECHNOLOGY

21st Annual Pacific Islands Environment Conference

June 24-28, 2002

Palasia Hotel

Koror, Republic of Palau

FINAL AGENDA

----- Monday, June 24 -----

PLENARY SESSION

(*Ming's Restaurant*)

Facilitator: **Tiare Holm**

7:30 am **Registration**

9:00 am **Opening Ceremonies**

Opening Chant by **Uroi Salii**

National Anthem by **Jovanka Koshiba, Colleen Dermody, Jennifer Dermody**

9:15 am **Welcoming Remarks**

The Honorable Tommy E. Remengesau, Jr., President, Republic of Palau

Yutaka Gibbons, High Chief Ibedul

Wayne Nastri, Regional Administrator, U.S. EPA Region IX

10:30 am **Break**

10:45 am **Introduction of Youth Representatives**

Pearl Marumoto, Palau Environmental Quality Protection Board

11:00 am **Keynote Address**

The Honorable Jeremy Harris, Mayor, City and County of Honolulu

11:45 am **Palau in Pictures: A Photographic Introduction to the Republic of Palau**

The Honorable Fritz Koshiba, Minister of Resources and Development,
Republic of Palau

Noon **Buffet Lunch** (provided by the Republic of Palau) (*Desomel Restaurant, Lobby Level*)

Presentation: **Feeding Ourselves: The Importance of Food Security to Island Sustainability**

Long term sustainability for island peoples depends increasingly on the achievement of secure food supplies. True island food security occurs when there is an abundance of nutritious and culturally appropriate food available over the long term. Protecting the agricultural and fisheries wealth that generates secure food supplies must be a strategic development objective of all island nations.

Presenter: **David Schaller**, Sustainable Development Coordinator, U.S. EPA Region VIII

1:00 pm **Traditional Leadership Panel**

Traditional leaders will discuss environmental protection.

Facilitator: **Faustina K. Rehuher**, Director, Belau National Museum

Panelists: **Reklai Raphael B. Ngirmang**, High Chief, Melekeok State
Bilung Gloria G. Salii, Koror, Palau
Rteruiich Katsusi Skang, Ollei, Ngerchelongsong State
Failautusi Avegalio, Director, Pacific Business Center Program, University of Hawaii College of Business
Charles Chieng, Executive Director, Yap Community Action Program

2:00 pm **Obiil Era Kelulau (OEK) Leadership Panel**

Members of Palau's Legislature will discuss the conference theme.

Facilitator: **Kathy Kesolei**, Coordinator, School-to-Work Program, Palau Ministry of Education

Panelists: **President Seit Andres**, Palau 6th OEK, Senate
Senator Harry Fritz, Palau 6th OEK, Senate
Senator Surangel Whipps, Palau 6th OEK, Senate
Speaker Mario Gulibert, Palau 6th OEK, Senate (*invited*)
Delegate Noah Idechong, Palau 6th OEK, House of Delegates
Delegate Joel Toribiong, Palau 6th OEK, House of Delegates

3:00 pm **Break**

3:15 pm **Regional Planning for Sustainability**

Panelists will discuss regional development plans and how they can be tooled to implement sustainable development.

Facilitator: **David Schaller**, Sustainable Development Coordinator, U.S. EPA Region VIII

Panelists: **Hon. Tommy E. Remengesau, Jr.**, President, Republic of Palau (*invited*)
Hon. Jeremy Harris, Mayor, City and County of Honolulu
Francis Matsutaro, CEO, Palau International Coral Reef Center

5:00 pm **Adjourn to Palau International Coral Reef Center**

Presenters: **Patrick Colin**, President, Coral Reef Research Foundation
Yimnang Golbuu, Chief Researcher, Palau International Coral Reef Center

6:00 pm **President's Reception at Palau International Coral Reef Center**

----- Tuesday, June 25 -----

CONCURRENT SESSIONS

TRACK 1 <i>(Ming's Restaurant)</i>	TRACK 2 <i>(7th Floor Lounge)</i>	TRACK 3 <i>(Desomel VIP Room, Lobby Level)</i>
<p style="text-align: center;">COMPACT ROAD AND CONSERVATION AREAS <i>(see page 4)</i></p> <p>8:00 am Palau Compact Road Focus Session</p> <p>10:00 am Break</p> <p>10:15 am Watershed Focus Session: Palau Conservation Areas</p>	<p style="text-align: center;">WATER AND WASTEWATER PROGRAMS <i>(see page 5)</i></p> <p>8:00 am Appropriate Treatment Technology for Pacific Islands: Drinking Water</p> <p>10:00 am Break</p> <p>10:15 am Appropriate Treatment Technology for Pacific Islands: Wastewater</p>	<p style="text-align: center;">RECYCLING <i>(see page 6)</i></p> <p>8:00 am Solid Waste Recycling</p> <p>10:00 am Break</p> <p>10:15 am Solid Waste Recycling (continued)</p> <p>11:00 am Used Oil: The Continuing Challenge</p>
<p>Noon Lunch <i>(Desomel Restaurant)</i></p> <p>Presentation: Everything (Almost) You Wanted to Know About Bioterrorism But Were Afraid To Ask</p> <p>This presentation will cover the different agents of bioterrorism, what is known about them, how they are transmitted, incubated, and how to clean up contamination. There will also be a specific discussion on anthrax: the history of recent events in the U.S. involving anthrax in the mail, steps taken to cleanup sites, EPA's involvement in the Capitol events, the effectiveness of cleanup activities and cleanup concerns.</p> <p>This session will be of interest to first responders to such incidents, such as health services, environmental and emergency agencies, and public safety.</p> <p>Presenter: Dorothy Canter, Toxicologist/Senior Policy Advisor, U.S. EPA Office of Solid Waste and Emergency Response, Washington, D.C.</p>		
<p style="text-align: center;">TUESDAY AFTERNOON FIELD TRIPS</p> <p>1:00 pm Koror Site Visits <i>(see full descriptions on page 7)</i></p> <p>Participants will be asked to select a field trip by the end of the day on Monday, June 24.</p> <ol style="list-style-type: none"> 1) Malakal Wastewater Treatment Plant The trip will examine the wastewater treatment process at the plant and view new construction. 2) Koror-Airai Potable Water System Treatment Plant The trip will examine the water treatment process at the plant. 3) Palau Bureau of Lands and Surveys Overview of Palau's GIS project. <i>Limited to 50 participants.</i> <p>5:00 pm Adjourn</p> <p>6:00 pm Reception Hosted by Palau OEK, Japan-Palau Friendship Bridge</p>		

TRACK 1
(Ming's Restaurant)

8:00 am Palau Compact Road Focus Session

The 53-mile Palau Compact Road project is the largest civil works project in Micronesia, and has faced serious challenges of terrain, weather, availability of materials, and sensitive environmental habitats. Under the negotiated language of the Compact of Free Association, the road must meet U.S. highway standards and, importantly, must comply with U.S. environmental laws, even though these laws do not apply elsewhere within the Republic of Palau. This session will summarize the progress made on this project to date, including discussion of how environmental issues such as erosion control, dredging, and soil disposal are being addressed, as well as how project impacts are being monitored. Conference participants will be visiting portions of the Palau Compact Road Project on tomorrow's field trip to Melekeok State.

Facilitator: Thomas Yocom, U.S. EPA Region IX

Presenters: Jon Vogt, U.S. Army Corps of Engineers
Dr. Yong Woo Kim, Daewoo Construction
Michael Molina, U.S. Fish and Wildlife Service
Gordon Tribble, United States Geological Survey
John Naughton, National Marine Fisheries Service
Terangue Gillham, Palau Environmental Quality Protection Board

10:00 am Break

10:15 am Palau Conservation Areas Focus Session

A January 2002 Presidential Directive established the Palau Compact Road Conservation (PCRC) Committee to assist and ensure implementation of the management plans for the Ngaremeduu Conservation Area and Ngardok Nature Reserve, which were adopted as environmental mitigation for the Palau Compact Road Project. This session will focus on the management plans for the conservation area and the reserve, which are in various stages of implementation, and will discuss issues and challenges in implementing these management plans.

Facilitator: Robin DeMeo, Natural Resource Conservation Service, Palau

Presenters: Alma Ridep-Morris, Marine Protected Areas Program Manager, Bureau of Marine Resources, Palau
Juana Rengulbai, Chair, Lake Ngardok Nature Reserve Board

Noon Lunch *(see description on page 3)*

TRACK 2
(7th Floor Lounge)

Water / Wastewater Program Sessions

Appropriate Treatment Technology for Pacific Islands

Pacific Island utility and regulatory agencies continue to seek out appropriate water and wastewater treatment technologies. These sessions will bring together experts to discuss appropriate water and wastewater technologies for island environments.

8:00 am Drinking Water Treatment

Facilitator: **Barry Pollock**, U.S. EPA Region IX

Panelists: **James Goodrich**, U.S. EPA National Risk Management Research Lab
Shahram Khosrowpanah, Professor, Water and Environment Research Institute,
University of Guam
Ernest Lau, American Water Works Association, Hawaii, & Kauai Drinking Water
Supply
Trisha Macomber, University of Hawaii
Don Yasutake, Engineer, Safe Drinking Water Branch, Hawaii Department of
Health

10:00 am Break

10:15 am Wastewater Treatment

Facilitator: **Michael Lee**, U.S. EPA Region IX

Panelists: **George Tchobanoglous**, Professor of Engineering, University of California, Davis
William Brewer, Senior Scientist, AMEC Earth & Environment, Washington

Noon Lunch (*see description on page 3*)

TRACK 3
(Desomel VIP Room, Lobby Level)

8:00 am **Solid Waste Recycling**

This session will examine the obstacles to successful recycling of solid waste in the islands and identify means to overcome those obstacles. Speakers will discuss the complexities of recycling in the islands, access to markets, and other issues. The session will also include a discussion of composting programs.

Facilitator: **Chris Reiner**, U.S. EPA Region IX

Panelists: **Jose Esteves**, Solid Waste Program, Guam EPA
Jim Nutter, President, Island Recycling, Hawaii
Eric Cruz, Errico Enterprises, Saipan
Mohammad H. Golabi, College of Agriculture and Life Sciences, University of Guam

10:00 am **Break**

10:15 am **Solid Waste Recycling** (continued)

See description above.

11:00 am **Used Oil: The Continuing Challenge**

Panelists will discuss their activities, plans, experience, and ideas for recycling used oil in the Pacific. The session's emphasis is on sustainable solutions to the used oil issue.

Facilitator: **Ramon Mendoza**, U.S. EPA, Region IX

Panelists: **Pearl Marumoto**, Environmental Education and Outreach Coordinator, Palau
Environmental Quality Protection Board
Fred Otte, Environmental Manager, Shell Guam, Inc.
Renato Mabesa, Technical Services Team Leader, Mobil Micronesia, Inc.
David Taitano, General Manager, Pacific Environmental Resources, Inc.
Adachi Satoru, Business Manager, Palau Public Utilities Corporation

Noon **Lunch** *(see description on page 3)*

TUESDAY AFTERNOON FIELD TRIPS

1) Malakal Wastewater Treatment Plant

This plant treats sewage generated in Koror. The plant was originally designed for an average daily flow of 1 million gallons per day with a peak daily flow capacity of 2.16 million gallons per day. Treatment consists of a primary clarifier, a high-rate, rock media, shallow bed, biological filter with continuous recirculation. Secondary clarification is based on sedimentation/settling requirements. There is a chlorine contact basin and an unheated anaerobic digester. Effluent from the plant is discharge to the ocean at the southern tip of the Malakal Island through an outfall pipeline. The pipeline discharges at an offshore location in approximately 60 feet of water. This field trip will examine the wastewater treatment process. Visitors will also view current construction of an expansion plant, which includes a laboratory and proposed wetlands.

Trip Leaders: **Richard Mangham**, Manager, Capital Improvement Projects Office, Palau
Dean Bates, Area Manager, Black Micro Corporation

2) Koror-Airai Potable Water System Treatment Plant

This plant provides drinking water to the states of Koror and Airai. This water system serves a population of 20,000. Daily water production is approximately 4.0 million gallons per day, which is the maximum capacity of the plant. At most times, the main water source for the plant is the Ngerikiil River, from which water is pumped directly into the plant; two pumps operate simultaneously. A second source is the Ngerimel Dam. The treatment process includes coagulation/flocculation with aluminum sulphate and powder-activate carbon, settling basins, a gravity-rapid sand filter and disinfection with hypochloride. The field trip will examine the water treatment process.

Trip Leader: **Dave Dengokl**, Manager, Koror-Airai Potable Water System Treatment Plant

3) Palau Bureau of Lands and Surveys

The Ministry of Resources and Development's Bureau of Lands and Surveys is home to the Palau Automated Land and Resources Information System (PALARIS), which is the National Geographic Information System or GIS. The office uses the most updated and modern computer technologies to digitally map and analyze resources within Palau. Data gathered as part of PALARIS then goes into the Natural Resource Information Database. This comprehensive database is used to track habitat changes and provide crucial information for sound development planning. Participants in this field trip will have a chance to view the equipment and technologies in use at the Bureau and will observe how analysis of digital data allows for decision-making. *This field trip is limited to 50 participants.*

Please let the conference planners know in advance (before or at registration) if you have any special needs.

----- Wednesday, June 26 -----

FIELD TRIP TO BABELDAOB ISLAND

- 7:30 am **Depart Koror via boat from T-Dock**
- 8:30 am **Arrive Melekeok**
- 9:00 am **Welcoming and Opening Statements**
- 9:30 am **Departure to Compact Road, Ngardok Lake, Capitol Project, Ngemai Conservation Area**
- 11:30 am **Return to Central Location**
- Noon **Lunch**
- 1:00 pm **Concurrent Activities**
1. Walk around the village to the traditional Bai (looking at traditional methods of architecture)
 2. Visit taro patches (featuring Palauan methods of gardening and the significance of taro in Palauan culture)
 3. Weaving activities (learning weaving techniques from baskets to decor and their use in Palauan practices)
 4. Traditional dancing
- 3:30 pm **Closing**
- 4:00 pm **Depart Melekeok**

Background Information for the Babeldaob Visit

Babeldaob is the largest island in Palau, and is the second largest island in Micronesia. However, this 127 square mile island is only sparsely populated, with some 47 villages situated along the east and west coasts. Life in villages in Babeldaob is largely a mixture between the modern and the traditional (imagine a *mechas* farming in a taro patch by hand and then cooking on an electric stove). Babeldaob was formed from volcanic activity 70 million years ago. The majority of the basaltic rock is covered with fine clayey soils that are relatively infertile. There are five major watersheds that output an average of 500 million gallons of water per day. Most of Babeldaob is covered with upland forest, mangrove forest, or savanna. Babeldaob is home to a large variety of plants and animals, many of which are endemic. Development projects have surged with the advent of the Compact Road Project and resources in Babeldaob are being utilized in new ways. This field trip to Melekeok, the home of the future Capitol of Palau, is a unique opportunity to view Babeldaob's resources, observe current development projects, and experience traditional Palauan culture.

Compact Road

The Compact Road was designed as a major infrastructure investment that is likely to serve as a precursor to economic growth to Babeldaob. The road is expected to encourage redistribution of the population from the smaller, urban, overcrowded island of Koror as inhabitants move back to their villages. Funded by the US Government and administered by the US Army Corps of Engineers according to mutually agreed upon specifications, the road is designed as a safe, high quality, all-weather, two-lane road with a maximum width of 23.6 feet and a paved length of 53 miles. The road must meet US highway standards and construction must comply with US environmental laws.

Capitol Relocation Project

The proposed Capitol Relocation Project came about pursuant to a mandate in the National Constitution, the objective of which was to build a permanent, cohesive and contiguous capital complex in the State of Melekeok. The complex will house the three branches of government (executive, legislative, and judicial) in a set of clustered buildings. Additional features include a main frontage road, connection and upgrading to the existing water system, water tank, a sewer/septic system, telephone/electrical/cable systems, parking lots, a plaza with covered walkways, and storm water drainage system. There has been much controversy concerning the project and environmental protection measures.

Ngardok Nature Reserve

Lake Ngardok is the largest natural lake in all of Micronesia. The lake and its surrounding watershed provide habitat for a variety of endangered and endemic plants and animals. Both the lake and the watershed have been established as a Nature Reserve by the Melekeok State Government. The lake is also slated to be the future freshwater source for the new Capitol. As the Capitol site and the lake are in different watersheds, so far there has been no negative impact on the water quality of the lake due to construction. Entry to the reserve is restricted.

Ngemai Conservation Area

Ngemai reef was once considered a rich source of marine organisms, in particular the sea urchin, *ibuchel*. Over-harvesting has caused a decline of these food sources, and in 1997 the Ngilwal State Government established the area as a conservation area. Rules and regulations for the conservation area included no entry, no boat traffic (with an established detour), and no taking of any resource for five years. The conservation management plan is up for renewal in 2002 and is currently under discussion in the state government.

What to Bring

Transportation to Melekeok will be by speedboat and transportation at the site will be by bus or by walking/hiking. Please consider bringing the following items with you:

- Hat, sunscreen, and sunglasses
- Water
- Camera
- Bug Repellant
- Toilet paper
- Sturdy shoes or Tevas
- Shorts or relaxed pants
- Supportive undergarments for women
- Rain jacket

Please let the conference planners know in advance (before or at registration) if you have any special needs.

Sources: Information on Babeldaob and the conservation areas comes from Fact Sheets provided by PCS. Information on the Compact Road and the Capitol Relocation projects come from those project's Environmental Impact Statements.

----- Thursday, June 27 -----

CONCURRENT SESSIONS

TRACK 1 <i>(Ming's Restaurant)</i>	TRACK 2 <i>(Desomel VIP Room)</i>	TRACK 3 <i>(7th Floor Lounge)</i>	TRACK 4 <i>(Ming's VIP Room)</i>
<p>WATERSHED / NPS / MARINE MONITORING <i>(see page 11)</i></p> <p>8:00 am Watershed Management & Implementation</p> <p>9:00 am Coral Reef and Marine Protected Areas</p> <p>10:00 am Break</p> <p>10:15 am Bio-Criteria Marine and Water Quality Monitoring for Island Nations</p>	<p>ENVIRONMENTAL EDUCATION AND OUTREACH <i>(see page 13)</i></p> <p>8:00 am Island Sustainability 101: What All Islanders Need to Know</p> <p>10:00 am Break</p> <p>10:15 am Youth Involvement in Environmental Protection</p> <p>11:00 am Project WET</p> <p>11:40 am Micronesia Reg. Env. Ed. Network</p>	<p>WATER / WASTEWATER PROGRAMS <i>(see page 16)</i></p> <p>8:00 am Building Water & Wastewater Capacity in the Pacific Islands</p> <p>10:00 am Break</p> <p>10:15 am Building Water & Wastewater Capacity (continued)</p>	<p>LANDFILL DESIGN, OPERATION, AND CLOSURE <i>(see page 18)</i></p> <p>8:00 am Planning Your Pacific Island Landfill</p> <p>10:00 am Break</p> <p>10:15 am Designing and Constructing Your Pacific Island Landfill</p>
<p>Noon Lunch <i>(Desomel Restaurant)</i></p> <p>Presentation: Lessons Learned: What Hawaii Would Do Differently If We Could Start Over Again Gary Gill, Deputy Director for Environmental Health, Hawaii Dept. of Health</p>			
<p>1:00 pm Marine & Coral Reef Monitoring</p> <p>2:00 pm Traditional / Alternative NPS Management Practices</p> <p>3:00 pm Break</p> <p>3:15 pm Effects of NPS Pollution on Near-Shore Water Quality</p> <p>5:00 pm Adjourn</p>	<p>1:00pm Climate Change</p> <p>3:00pm Break</p> <p>3:15pm International Conventions</p> <p>5:00pm Adjourn</p>	<p>1:00 pm Invasive Species</p> <p>3:00 pm Break</p> <p>3:15 pm Ecotourism: Planning and Implementation</p> <p>5:00 pm Adjourn</p>	<p>1:00pm Operating Your Pacific Island Landfill (con't)</p> <p>2:30pm Closing Your Pacific Island Dump</p> <p>3:00pm Break</p> <p>3:15pm Dump Closure (continued)</p> <p>4:00pm Open Discussion</p> <p>5:00pm Adjourn</p>
<p>6:00 pm Hosted Reception</p>			

TRACK 1
(Ming's Restaurant)

Watershed / NPS / Marine Monitoring Sessions

8:00 am Watershed Management and Implementation

This session focuses on watershed management and implementation, with emphasis on community involvement and incorporation of traditional practices in furthering conservation efforts.

Facilitator: **Robin DeMeo**, Natural Resources Conservation Service, Palau

Presenters: **Simpson Abraham**, Kosrae
William N. Kostka, Conservation Society of Pohnpei
Kathryn B. Fuller, American Bar Association (Topic: *Community-Based Conservation in Uganda: Possible Strategies for the Pacific Islands*)

9:00 am Coral Reef and Marine Protected Areas

The US Coral Reef Task Force established a goal of setting aside 20% of U.S. coral reefs as Marine Protected Areas (MPAs). MPAs play a vital role in the health, recruitment and fisheries productivity of coral reefs. This session will describe management approaches and research findings on coral reef MPAs.

Facilitator: **Wendy Wiltse**, U.S. EPA Pacific Islands Contact Office, Hawaii

Presenters: **Noah Idechong**, Delegate, Palau Legislature
Alan Freidlander, Fisheries Ecologist, The Oceanic Institute, Hawaii
Antonio Bentivoglio, Fish and Wildlife Biologist, U.S. Fish and Wildlife Service, Hawaii

10:00 am Break

10:15 am Bio-Criteria Marine and Water Quality Monitoring for Island Nations

This session will discuss the importance of marine monitoring programs, relationship of marine and water quality monitoring, and discuss the need for coordination between federal and island agencies.

Facilitator: **Peter Houk**, Division of Environmental Quality, CNMI

Presenters: **Bob Richmond**, University of Guam
John Starmer, Coastal Resources Management, CNMI
Peter Peshut, American Samoa Environmental Protection Agency
Mark Monaco, National Oceanic and Atmospheric Administration

Noon Lunch *(see description on page 10)*

1:00 pm Marine and Coral Reef Monitoring

This session will provide a forum for presentations and discussions on marine and coral reef monitoring. The presentations will cover areas from community based coral reef monitoring, bioaccumulation monitoring with giant clams, and current marine monitoring efforts and studies in the Pacific.

Facilitator: **Wendy Wiltse**, EPA Pacific Islands Contact Office, Honolulu

Panelists: **Katrina Adams**, Kosrae Village Resort
Colleen Brust, U.S. Army Center for Health Promotion & Preventive Medicine
Steven Rohmann, Ph.D., National Ocean Service, NOAA
Adalbert Eledui, Koror State Conservation Ranger, Palau

2:00 pm Traditional/Alternative Non-Point Source Management Practices

Inadequate and inappropriate erosion and sediment control practices for construction and urban areas continue to be of concern to Pacific island areas. Sediment deposition to marine environs have significant impacts to receiving water and marine organisms (coral reefs) which are critical to the sustainability of Pacific islands areas. This session will discuss the use of local, traditional, low-tech, alternative/innovative, and conservation practices/concepts in controlling soil erosion and sediment.

Facilitator: **Michael Lee**, U.S. EPA Region IX

Presenters: **Earl Shaver**, Auckland Regional Council, New Zealand
Michael Harding, San Diego State University

3:00 pm Break**3:15 pm Effects of Non-Point Source Pollution, Terrestrial Run-Off on Near-Shore Water Quality**

Non-point source pollution and terrestrial run-off to near-shore waters have significant impacts to marine organisms/coral reefs, water quality and the sustainability of island economies. This session will discuss and show the effects of non-point source pollution on the marine environment and water quality.

Facilitator: **Fran Castro**, Division of Environmental Quality, CNMI (*invited*)

Presenters: **John Starmer**, Coastal Resources Management, CNMI
Bob Richmond, Professor, University of Guam
Earl Shaver, Auckland Regional Council, New Zealand
Wendy Wiltse, U.S. EPA Pacific Islands Contact Office, Honolulu

5:00 pm Adjourn

TRACK 2
(*Desome! VIP Room*)

Part 1: Environmental Education and Outreach

The first session in the Environmental Education and Outreach track will tackle the struggles of getting environmental information to the community in a way that's both effective and easy to understand. The session will address both the message and the way it's delivered, examining some basic principles of sustainability and how tradition and technology can merge to change behavior and protect resources.

The second session in the Environmental Education and Outreach track will focus on environmental education in schools and the community, with emphasis on outreach to youth. Youth leaders will have an opportunity to present their unique viewpoints, and those responsible for outreach to youth will also discuss some of the challenges they face. Training teachers to present environmental education in schools will be discussed in a panel on Project WET, and the session will close with a presentation on the new Micronesia Regional Environmental Education Network.

8:00 am **Island Sustainability 101: What All Islanders Need To Know (And How to Get Them to Listen)**

How do we make sustainability an integral component of our culture, especially when the pressures of development and economic expansion are so strong? How can we draw parallels between the modern concept of sustainability and traditional resource management practices? This two-part session will first present 10 basic facts about island ecosystems and ecology that every island resident (and visitor) needs to know. Panelists will then discuss local conditions and effective outreach messages. During the second part of the session, presenters and panelists will address effective ways to get the message out and raise the "sustainability consciousness" of residents and visitors.

Goal: To discuss ways to make the concept of "sustainability" an integral part of island culture.

Facilitator: **Kathy Kesolei**, Coordinator, School-to-Work Program, Ministry of Education, Palau

Panelists: **David Schaller**, Sustainable Development Coordinator, U.S. EPA Region VIII
(Topic: *Sustainability Essentials*)

Margie Falanruw, Yap

Alissa R. Takesy, Environmental Awareness Program Manager, Conservation Society of Pohnpei

Bernie Kelderman, Palau Conservation Society

Michael Mann, U.S. EPA Region IX (Topic: *Outreach through Technology*)

10:00 am **Break**

10:15 am Leaders of Tomorrow: Youth Involvement in Environmental Protection

Younger generations are the future of our islands. Instilling environmental awareness and responsibility needs to begin at an early age, but effectively reaching youth with an environmental message is a continual challenge. This session will allow those who work regularly with youth and youth leaders themselves to explain the challenges and possible solutions to ensuring that future generations of islanders take responsibility for protecting their fragile homes.

Goal: To provide an opportunity for youth leaders to express their perspectives on involving younger generations in community-based environmental protection.

Facilitator: **Pearl Marumoto**, Environmental Education and Outreach Coordinator, Palau
Environmental Quality Protection Board

Panelists: **Joy D. Vai**, Youth Representative, American Samoa
Hannah Blas, Marine Mania, Guam
Obichang Ongklungel, Youth Representative, Palau

11:00 am Teaching Teachers: Project WET

Project Water Education for Teachers (WET) is a teacher training program designed to improve students' knowledge of water resources issues. The program has been running since 1996 in CNMI, in American Samoa since 2000, and was recently started in Palau.

Goal: To present an overview of Project WET and provide updates on the progress of programs in the Pacific Islands.

Facilitator: **Grace O. Garces**, Public Information Officer, Guam EPA

Panelists: **Pam Mathis**, Project WET Coordinator, Commonwealth Utilities Corp., CNMI
Malelega Tuiolosega, Project WET Coordinator, American Samoa EPA
Helen Rose Sugiyama, Project WET Coordinator, Division of Utility Collection, Palau

11:40 am Micronesia Regional Environmental Education Network: Launch and Brainstorming Session

The islands of the Western Pacific have unique cultural and ecological characteristics, and cookie-cutter models developed for mainland environmental education and outreach don't always work effectively in Micronesia. With shrinking budgets and limited local resources, it is essential for Pacific Islanders involved in environmental education and outreach to be able to pool resources, make use of materials that have been developed on other islands, and reach out to colleagues working in similar environments to share ideas, problems, and solutions. The Micronesia Regional Environmental Education Network (MREEN) will serve as a library of materials produced in and for Micronesia, a resource directory of environmental education/outreach professionals and organizations, and a mechanism for pooling resources to effectively produce new materials for use throughout Micronesia. This session will present a short overview of MREEN, to be followed by a discussion and brainstorming session to further define the scope of MREEN activities and initiate an action plan. **NOTE: The discussion and brainstorming session will continue Thursday afternoon in a location to be determined.*

Presenters: **Michael Mann**, U.S. EPA Region IX
Grace O. Garces, Public Information Officer, Guam EPA

Noon Lunch (see description on page 10)

Part 2: International Issues

1:00 pm **Climate Change**

This session will present a broad overview of climate changes issues in the Pacific and local/regional approaches to address rising sea levels and international climate change treaties.

Facilitator: **John McCarroll**, Manager, Pacific Islands Office, U.S. EPA Region IX

Panelists: **Penehuro Lefale**, National Institute of Water & Atmospheric Research, New Zealand
Ethan Daniels, Science Coordinator, Office of Environmental Response and Coordination, Palau
John Mooteb, Sustainable Development Coordinator and Pacific Islands Climate Change Assistance Programme (PICCAP) Coordinator, Department of Economic Affairs, Pohnpei, FSM
Joseph M. Konno, Director, Chuuk State EPA
Ann Kitalong, Palau Environmental, Inc.

3:00 pm **Break**

3:15 pm **International Agreements**

This panel will include a discussion of activities taking place in the Pacific under a number of international agreements related to toxics in the environment. Representatives from the government of Palau will highlight the obligations and benefits of membership in a number of international environmental conventions.

Facilitator: **Nate Lau**, Associate Director, Cross-Media Division, U.S. EPA Region IX

Participants: **John O'Grady**, South Pacific Regional Environment Programme
Michelle Rogow, On-Scene Coordinator, U.S. EPA Region IX
Tarita Holm, National Biodiversity Coordinator, Office of Environmental Response and Coordination, Palau (*invited*)
Theo Isamu, Director, Palau Bureau of Fisheries (*invited*)

5:00 pm **Adjourn**

TRACK 3
(7th Floor Lounge)

Part 1: Water & Wastewater Program Sessions

- 8:00 am **Building Water & Wastewater Capacity (Technical, Managerial, Financial) in the Pacific Islands**
- Building technical, managerial and financial capacity for island utilities has been a continual and difficult problem for utility agencies throughout the pacific. The session will focus on how island utility agencies can develop institutional capacity. Experts will also discuss the types of technical assistance tools available.
- Facilitator: **Ben Machol and Barry Pollock**, U.S. EPA Region IX
- Panelists: **Ernest Lau**, American Water Works Association, Hawaii, & Kauai Drinking Water Supply
Joe Barboo, U.S. Army Corps of Engineers, Hawaii
Shahram Khosrowpanah, Water and Environment Research Institute, University of Guam
Kurt Ohlinger, Office of Water Programs, Sacramento State University
Mike Cunningham, Water for People, Hawaii
Clive Carpenter, South Pacific Applied Geoscience Commission, Fiji
Don Yasutake, Engineer, Safe Drinking Water Branch, Hawaii Department of Health
Don Hanser, Palau Community College
Aderiano Noah, President, Palau Rural Water System Operators Association
- 10:00 am **Break**
- 10:15 am **Building Water & Wastewater Capacity (continued)**
- See description above.
- Noon **Lunch** (*see description on page 10*)

Part 2: Ecotourism and Invasive Species

1:00 pm **Invasive Species**

The introduction of alien species to the Pacific Islands is increasing, and poses a serious threat to terrestrial and marine ecosystems, including coral reefs. Prevention must be the primary goal to reduce the risk of introduction and establishment of new aliens. Local and regional coordination, as well as information exchange, is essential to identify high-risk vectors to avoid or minimize introductions.

Facilitator: **Lynn Raulerson**, Professor of Biology, University of Guam

Panelists: **Joel Miles**, Palau Community College
Kevin Foster, U.S. Fish and Wildlife Service, Honolulu

3:00 pm **Break**

3:15 pm **Ecotourism: Planning and Implementation**

Palau and other Pacific Island nations and territories are becoming increasingly dependent on tourism to support their economies, highlighting the need to sustain and protect the natural and cultural resources that tourists are attracted to. With their sensitive and unique natural environments, Palau and other Pacific Islands are prime candidates for the development of sustainable and eco-tourism industries. This session will engage participants in a workshop designed to define the components of a sustainable ecotourism policy for Palau (which could be modified for use on other islands). Specific items to be covered in the session include: 1) the development and expansion of ecotourism facilities and programs in Palau; 2) staff training and development for effective minimization of waste and resource consumption; and 3) visitor education and outreach programs to minimize negative visitor impacts on fragile ecosystems.

Goal: Development of a draft action plan for the implementation of sustainable tourism policy in Palau, which will include designating local leads to continue development and implementation of the policy.

Facilitator: **David Schaller**, Sustainable Development Coordinator, U.S. EPA Region VIII

Panelists: **Mary Ann Delmel**, Managing Director, Palau Visitors Authority
Robin Aiello, Interpretation Programs Coordinator, Great Adventure Outer Reef & Island Cruises, Australia
Ron Leidich, Manager, Planet Blue Sea Kayak Tours

5:00 pm **Adjourn**

TRACK 4
(Ming's VIP Room)

Landfill Design, Operation, and Closure in the Pacific

A series of sessions designed for managers and decision-makers. The sessions focus on fundamentals and lessons learned from case studies in the Commonwealth of the Northern Mariana Islands (CNMI), American Samoa, and other Pacific Islands. Subjects include landfill planning, financing, operations, location selection process, closure, post-closure, and design/construction. Sessions are designed to provide operators, managers and decision-makers with the necessary information to make informed decisions.

Facilitators: **Ramon Mendoza**, Environmental Engineer, U.S. EPA Region IX
 Patricia Young, CNMI Program Manager, U.S. EPA Region IX

Panelists: **Birdie Carpenter**, Solid Waste Manager, Dept. of Public Works, CNMI
 Mike Dworsky, Supervisory Engineer, American Samoa Power Authority
 William Hawley, Principal Engineer, Harding ESE
 George Savage, Executive Vice President, Cal Recovery, Inc.
 Richard Mangham, Manager, Capital Improvement Projects Office, Palau

8:00 am **Planning Your Pacific Island Landfill**

Strategies for developing infrastructure, funding, design, location, dump closure, and other considerations. *(Carpenter, Hawley, Dworsky, Savage, Mangham)*

10:00 am **Break**

10:15 am **Designing and Constructing Your Pacific Island Landfill**
(Hawley, Carpenter, Savage)

Noon **Lunch** *(see description on page 10)*

1:00 pm **Operating Your Pacific Island Landfill**
(Savage, Dworsky, Carpenter)

2:30 pm **Closing Your Pacific Island Dump**
(Carpenter, Savage)

3:00 pm **Break**

3:15 pm **Closing Your Pacific Island Dump (continued)**

4:00 pm **Open Discussion**

5:00 pm **Adjourn**

----- **Friday, June 28** -----
PLENARY SESSION
(Ming's Restaurant)

8:30 am **Leadership Panel**

Local leaders (political, environmental, non-governmental, media) will convene to discuss key issues generated throughout the week. Youth representatives will make brief presentations on these key issues and the panelists will be asked to respond to their suggestions.

Facilitators: **John McCarroll**, Manager, Pacific Islands Office, U.S. EPA Region IX
Kathy Kesolei, Coordinator, School-to-Work Program, Palau Ministry of Education

Panelists: **Hon. Sandra Pierantozzi**, Vice President, Republic of Palau
Fritz Koshiba, Minister of Resources and Development, Palau
Harry R. Fritz, Senator, Palau Senate
Noah Idechong, Chairman, Palau House of Delegates
Norvert Yano, Deputy Director, Palau Environmental Quality Protection Board
Bilung Gloria G. Salii, Koror, Palau
Patrick U. Tellei, President, Palau Community College (*invited*)
Mary Ann Delmel, Director, Palau Visitors Authority
Minoru Ueki, Board Chairman, Palau Conservation Society
Alan R. Seid, MIDCORP, Palau
Alfonso Diaz, General Manager, WWFM 89.5, Palau

10:30 am **Break**

10:45 am **Conference Review / Future Direction**

Presenter: **David Schaller**, Sustainable Development Expert, U.S. EPA Region VIII

11:00 am **Open Microphone / 2003 Venue Selection**

Facilitator: **John McCarroll**, Manager, Pacific Islands Office, U.S. EPA Region IX

11:30 am **Closing Remarks**

Alexis Strauss, Director, Water Division, U.S. EPA Region IX
Fritz Koshiba, Minister of Resources of Development, Republic of Palau

Noon **Adjourn**

Afternoon **Rock Islands Field Trip (*Optional*)**