HAWAII STATE DEPARTMENT OF HEALTH

HEER NEWS

The Hawaii Department of Health, Office of Hazard Evaluation and Emergency Response (HEER Office), has prepared this newsletter to provide select updates to recent and current HEER activities and announcements of future activities. With the newsletter the HEER Office hopes to better inform the environmental community and the public of the roles and services that the agency offers.

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CONTACT INFORMATION
Office of Hazard Evaluation and Emergency Response (HEER Office)
Hawaii State Department of Health
919 Ala Moana Boulevard, Room 206, Honolulu, Hawaii 96814
Telephone: (808) 586-4249

Siting Renewable Energy Projects on Potentially Contaminated Land

Through the Hawaii Clean Energy Initiative (HCEI), the State of Hawaii has set an aggressive goal to achieve 70% clean energy by the year 2030 with 30% from energy efficiency measures, and 40% from locally generated renewable energy resources. In addition, the U.S. Environmental Protection Agency (EPA) *RE-Powering America's Land Initiative* encourages siting renewable energy projects on potentially contaminated land. The HEER Office recognizes the overall environmental and economic benefits of these types of projects, because they:

- Provide an economically viable reuse for sites with significant cleanup costs or low real estate development demand;
- Often have critical infrastructure in place including electric transmission lines, roads and water on-site, and are adequately zoned for commercial development;
- Preserve "greenspace" by taking the stress off undeveloped land for construction of new projects; and
- Provide job opportunities.

Further, these projects help the state of Hawaii meet our energy demands and the HCEI goal by advancing cleaner and more cost effective energy technologies. Given these benefits, there are a growing number of available resources to assist renewable energy project developers move a project from concept to completion.

Identifying Contaminated Sites and Resource and Technical Assessment

The EPA, in partnership with the U.S. Department of Energy (DOE) National Renewable Energy Laboratory (NREL), has developed a *Renewable Energy Interactive Mapping Tool* (updated in August 2010) which makes it possible to find information for siting renewable energy projects on contaminated land using Google Earth or downloadable spreadsheets and shapefiles. To create this tool, EPA developed an inventory of abandoned mine lands, Brownfields program sites, Resource Conservation and Recovery Act (RCRA) sites, Superfund sites and landfills. From this inventory, EPA extracted sites with acreage and viable latitude and longitude data. This subset of EPA and state tracked sites was then mapped against 14 different renewable energy types using developed screening criteria. At the time of this writing, 28 sites were found across the state of Hawaii and the potential renewable energy types included: photovoltaic (PV) solar, wind, landfill gas energy, and biorefinery facility.

While the screening criteria demonstrate the potential to reuse contaminated land for renewable energy facilities, the criteria and the maps are not designed to identify the best sites for developing renewable energy and are not all-inclusive. More detailed, site-specific analysis is necessary to identify or prioritize the best sites for developing renewable energy facilities based on technical, resource, and economic potential. Resources are available to conduct a self-assessment and identify this potential at the renewable energy section of the Department of Business Economic Development and Tourism Energy Office website.

Incentives

Incentives are available for both the development of contaminated land and renewable energy. The EPA and the state administer incentives for assessment and cleanup of contaminated land. The Hawaii Brownfields Revolving Loan Program and the EPA Brownfields and Land Revitalization grants and funding are two common resources. In addition, the Database of State Incentives for Renewables & Efficiency (DSIRE) is a valuable resource that provides information about renewable energy and energy efficiency incentives and policies in the United States. Relevant incentives and policies established by the federal government, state governments, local governments, utilities and non-profit organizations are included in DSIRE.

Technical Assistance for Renewable Energy Projects

Technical assistance may be needed throughout all phases of a renewable energy project from planning and design, permits and approvals, to policy and economic analysis, to incentives and market review, through project development and finance support. NREL is a key partner with the EPA in the *RE-Powering America's Land Initiative* and provides technical support services for each of these phases at low or no cost.

Addressing Liability Concerns for Redeveloping Contaminated Sites

Liability concerns can be addressed through both government programs or through other mechanisms that are non-governmental tools. In either case, it is always advisable to consult with legal counsel and the HEER Office before taking any action to acquire, cleanup, or redevelop contaminated property.

The vast majority of contaminated property requiring cleanup are most likely to be addressed by state cleanup programs administered by the HEER Office, such as the Voluntary Response Program (VRP) or Fast Track Cleanups (FTC) process. Federal and state environmental laws include a number of liability protections for innocent purchasers. In addition, recent amendments to these laws create a series of grant programs to help identify, assess, cleanup, and redevelop contaminated properties. These laws operate on a "polluter pays" principle and are designed to ensure that parties who are responsible for the contamination pay to clean up the contamination.

Liability protections from environmental laws, indemnification and release agreements and environmental insurance policies are examples of non-governmental tools that may be used to allocate responsibility for liability concerns. Indemnification and release agreements are private contracts in which one party (for example, a property owner) agrees to assume another party's potential liability (for example, a lessee of that property). Indemnification and release agreements provide prospective buyers, lenders, insurers, and developers with a means of assigning responsibility for cleanup costs and encourage negotiations among private parities without government involvement.

Looking Ahead

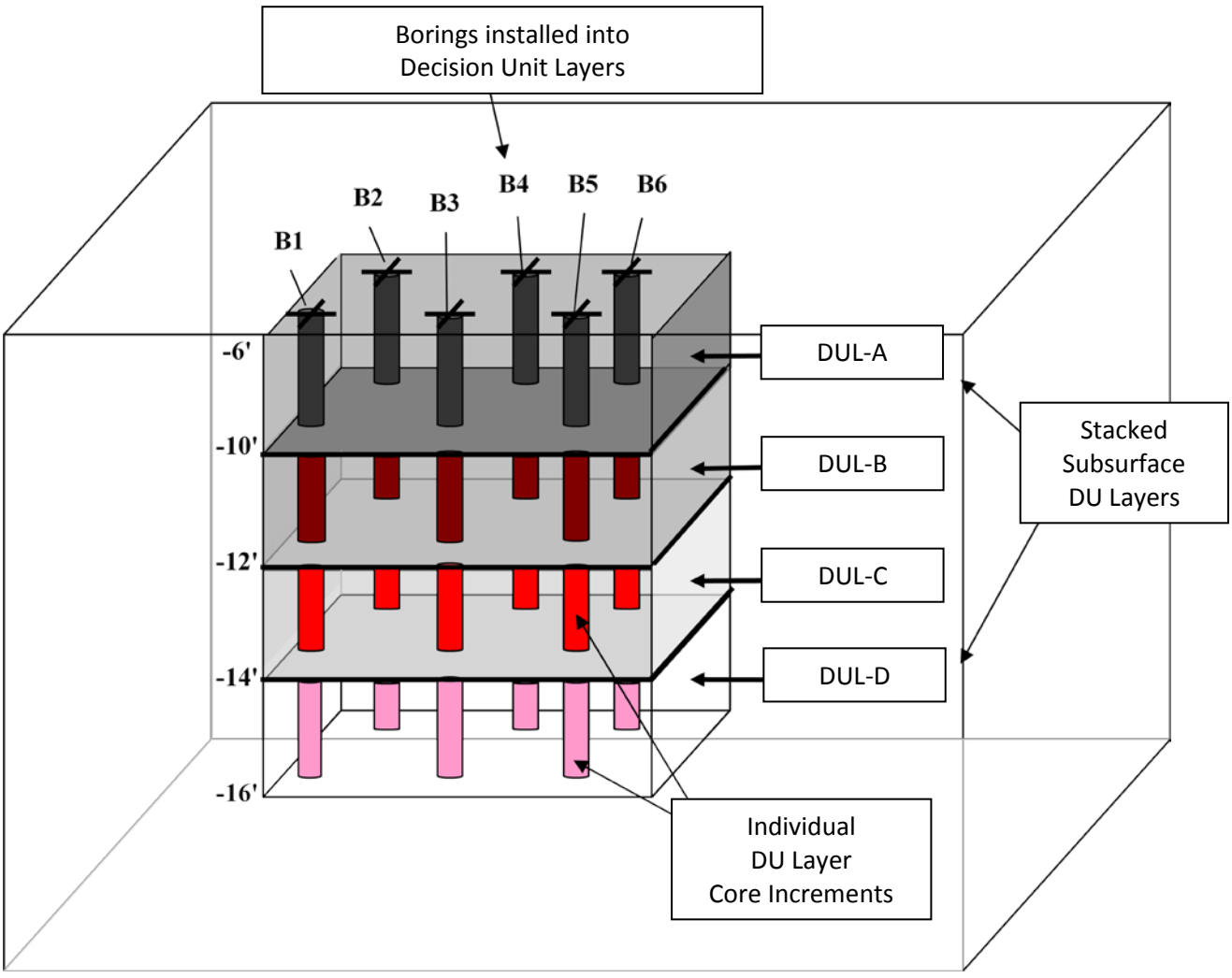
The HCEI and *RE-Powering America's Land Initiative,* both launched in 2008, are still new initiatives and will continue to produce more data, tools, incentives and success stories with time. Effective redevelopment of contaminated property will lead to a safer environment, contribute to economic growth, create jobs, increase tax revenues, and remove eyesores from our communities. There are a growing number of resources to support siting renewable energy projects on contaminated property. Liability concerns, when properly addressed in the initial planning stages and throughout project development, should not be a deterrent for these types of projects.

MIS Guidance Update

This multi-increment sampling (MIS) guidance update is a follow-on to the "MIS Pilot Study and Guidelines for VOCs" article published in January 2011. The HEER Office has issued a memorandum titled "Technical Guidance Manual Notes: Decision Unit and Multi-Increment Sample Investigations," dated March 2011. In particular it provides guidance on Decision Unit (DU) designation, MIS, and sample collection methods.

Decision Units

DUs are essential to all surface and subsurface investigations. It is suggested that DU boundaries and DU layers (depth intervals) be utilized. Also, when a spill area DU is deeper than it is wide, consider the use of a small number of boreholes to investigate the subsurface presence or absence of contamination at depth. There are other important DU guidelines provided in this update.



Above. Designation of DU Layers (versus specific depth points) for subsurface investigations. The section of core extracted from a DU Layer represents an "increment".

Increment Collection

Increment collection should be evenly spaced in all directions in each DU. A simple equation is provided in this update as a guide to approximate increment spacing, although final spacing will vary upon DU shape and field conditions. An ideal increment is core-shaped to avoid a bias toward the upper portion of the sample. Therefore, various types of increment sampling equipment such as tube-shaped samplers or flat-bottom scoops are presented for consideration.

Above (left). Tube-shaped sampler used to collect increment on disposable plate and placed into sampling container (e.g., one-gallon freezer bag carried in clean bucket). Note cylindrical shape of increment.

Above (right). Flat-bottom scoops with upright, flat sides to help avoid a bias toward the upper layers of sediment.

Practical guidelines on DU designation and MIS collection methods are provided in this update and merit a thorough review. This recent update also contains information on practical MIS sampling regarding:

- VOC/SVOC MIS
- Subsurface investigations
- Sediment investigations
- Surface water investigations
- Increment collection locations
- Laboratory issues and how to avoid common mistakes/misunderstandings
- Example field diagrams on DU designation
- Sampling equipment and techniques

Find the document "Technical Guidance Manual Notes: Decision Unit and Multi-Increment Sample Investigation" on the HEER website in the Additional Guidance Section of the online Technical Guidance Manual (TGM). The MIS Pilot Study reported in the January 2011 Newsletter resulted in valuable contributions to this update on MIS. The complete results of the MIS pilot Study will be featured on the HEER website in the near future.

HEER News and Activities

Interstate Technology and Regulatory Council

The Interstate Technology and Regulatory Council (ITRC) is an active network of diverse professionals dedicated to developing information resources and encouraging the use of technically sound innovative solutions to environmental challenges. The multidisciplinary, consensus-based ITRC teams receive input from states, federal agencies, the private sector, academia, and citizen stakeholders to develop guidance documents and training courses that are used by regulatory agencies, technology vendors, environmental consultants, and other stakeholders. Throughout the development process, state agencies are asked to review and comment on the documents and trainings.

ITRC guidance documents address innovative technologies for characterization and remediation of contaminated sites. Free ITRC documents can be viewed or downloaded at the ITRC website. ITRC project teams develop Web-based and/or classroom training to augment the information in the guidance documents. There is a fee for the classroom training, but the Web-based training is free. If attendees sign in and complete a survey before signing out of the web-based training, they can request a certificate of completion. For information on upcoming training, please visit the home page of the ITRC website.

Project teams continuously work to develop new guidance, classroom training, and Web-based training. Documents and training for the projects that began this year may be available in 2012 or 2013. Documents and training for ongoing ITRC projects that began prior to 2011 will be available later this year or in 2012. Project teams are currently working on the following:

- Biochemical Reactors for Mining-Influenced Water (new in 2011)
- Groundwater Statistics and Monitoring Compliance (new in 2011)
- Contaminated Sediments – Remediation (new in 2011)
- Contaminated Sediments – Bioavailability (ongoing)
- Environmental Impacts of Ethanol and Bio-Based Fuels (ongoing)
- Environmental Molecular Diagnostics (ongoing)
- Green and Sustainable Remediation (ongoing)
- Incremental Sampling Methodology (ongoing)
- Integrated DNAPL Site Strategy (ongoing)
- Permeable Reactive Barrier Technology Update (ongoing)
- Solidification/Stabilization (ongoing)
- Attenuation Processes for Metals and Radionuclides (ongoing)
- Mining Waste (ongoing)
- Remediation Risk Management (ongoing)

ITRC is currently in the process of selecting new projects for 2012 which are posted on the planning section of the ITRC website. Please contact Lynn Bailey, the ITRC State Engagement Program point of contact, at lynn.bailey@doh.hawaii.gov or 586-4653 for assistance if you:

- Feel strongly about one of the proposed 2012 projects
- Have questions about ITRC
- Would like to receive an article of participation
- Would like to see specific topics addressed in future ITRC documents or training
- Have used ITRC guidance or training on a project
- Have suggestions for improvement

Workshops, Forums and Trainings

Upcoming Event – Fifth Hawaii Brownfields Forum – Will take place Tuesday, May 24, 2011. This year the Forum will be a separate track within a larger event with the Hawaii Build and Buy Green Conference and Expo and Hawaii Green Workforce Development. The overall event will focus on green buildings, renewable energy, effective and protective reuse of contaminated property and green workforce development. Over 400 participants from across the state are expected to attend and learn about cutting-edge initiatives and technology for building sustainable communities. 50 exhibitors will showcase their products and services. Visit the conference website to learn more about this exciting event and we look forward to seeing you there!

Announcements

Meet the New Deputy Director of the DOH Environmental Health Administration

In January of this year Governor Neil Abercrombie appointed Gary Gill as Deputy Director for the Environment in the Department of Health. Gary previously served as the Director of the Office of Environmental Quality Control and as Department of Health's Environmental Deputy during the Cayetano administration. Prior to returning to state government, Gary worked in various non-profit community organizations including the Sierra Club, Kokua Kalihi Valley and the Blue Planet Foundation. Gary was born and raised in Honolulu and educated in the Hawaii Public School system. He served on the Honolulu City Council for two terms including two years as Chairman. Gary and his wife Susan have been married for 25 years. Their daughter, Lorin, is attending the American University in Washington, D.C., their son, Darian, is in the 6th grade at Kawananakoa Middle School in Honolulu.

HEER Office Revised Website

The HEER Office recently overhauled its website to make it more user-friendly. A few new style elements and other features, such as a slideshow and an events calendar, were added too. The previous site is no longer active but all of the content is accessible through the new website. No need to change bookmarks or favorites because the website address remains the same. Get acquainted with the revised HEER Office website today!

Brownfields Tax Incentive

This tax incentive allows a taxpayer to fully deduct the costs of environmental cleanups in the year the costs were incurred rather than spreading the deductions over a period of years. For some property owners, the accelerated deduction of the Brownfields Tax Incentive may provide a financial benefit that will stimulate Brownfields cleanup and revitalization. Don't delay because the incentive is currently set to expire at the end of the calendar year (December 31, 2011). Visit the Brownfields section of the HEER website to download a fact sheet on the incentive for further information.

Survey – We want to hear from you!

The HEER Office has prepared a very short survey to gather your ideas for newsletter articles, upcoming events and other general comments about our programs and services. The survey can be accessed here: https://www.surveymonkey.com/s/HEERNewsSurvey_May2011 and will remain open through June 3, 2011. We look forward to hearing from you!