



CENTER FOR WATER AND LAND USE

About The Center

The mission of the Center for Water and Land Use is to increase awareness and understanding of the relationships between water resources and land use policies and practices through education, training, applied research, collaboration and dissemination of information. The Center's vision is to see all forms of future development and redevelopments positively and thoughtfully address the following areas of concern:

- water use efficiency
- sustainable water resources management
- source water protection
- quality of water in streams, rivers, lakes, wetlands and aquifers
- impact of development on water quantity and supply
- protection of aquatic habitat

How you can benefit

The Center provides education and training, web- and print-based case studies and tools, and applied research and consultation to help create communities that are more sustainable with respect to water resources.

UC Davis campus partners

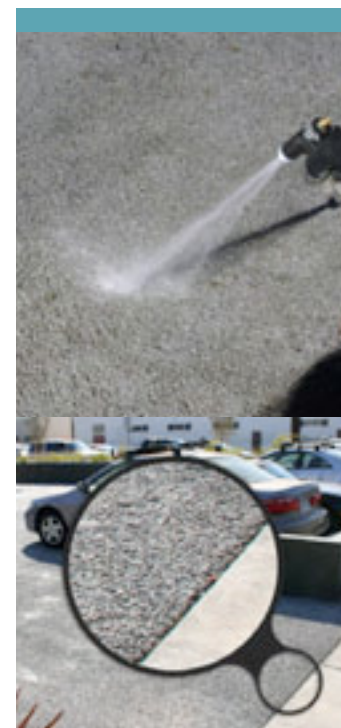
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The Center is a founding member of the California Water and Land Use Partnership.

For more information

For more information on the Center for Water and Land Use, please call Timothy Lawrence, Ph.D., at (530) 754-9008, email tjlawrence@ucdavis.edu or visit our Web site.

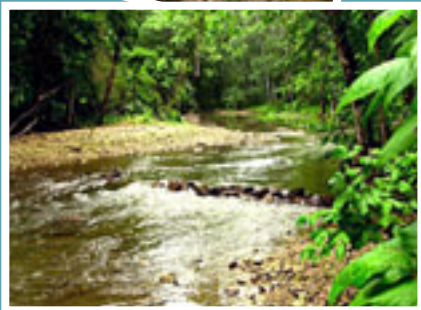
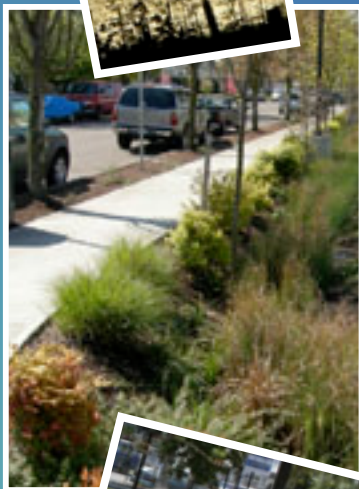
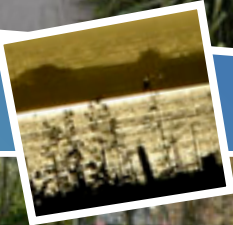
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Visit our Web site for a variety of resources showcasing how urban development can be planned and designed to use natural processes to minimize impact on water resources.

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Key Principles

Low-Impact Development (LID)

LID is an innovative storm water management approach modeled after nature—manage rainfall as close to the source as possible using a variety of dispersed treatments to mimic or restore natural hydrology. To offset the impact of urban development, LID addresses water quantity, hydrology, water quality, natural resources and biodiversity. LID techniques can also help improve the overall efficiency and costs of a storm water management program by minimizing conventional storm drainage infrastructure.

LID uses numerous techniques from pervious pavement and swales to bio-retention cells, rain gardens and green roofs. LID is applicable in a variety of settings—from residential to commercial, from small to large development. Applications can be site specific or regional, and can be a part of high-density and “smart growth” strategies or found in conventional subdivisions and developments. Future development should consider LID techniques whenever possible, not only to meet federal and state requirements, but also to protect valuable natural resources and protect personal and public property.

Integrated Water Resources Management

In today’s complex water policy world, an integrated, regional and comprehensive approach to water management is essential. The Center takes a sustainable approach to water management, linking solutions for water supply quality, water use efficiency, water reuse and recycling, conjunctive use of ground and

surface water and environmental and aquatic protection and restoration. Improving the state of the art of integrated planning by using stakeholder collaboration to resolve various water conflicts is essential to our focus.

Water Wise Urbanism

Planning, designing and building communities that pay attention to water in the urban environment, is an essential cornerstone of the Center’s philosophy. This involves careful planning and design for all types of future growth including redevelopment and revitalization, infill and well-planned, well-located new community areas to increase water efficiency, improve water quality and restore natural hydrologic systems.

Natural Resource-Based Planning

Natural resource-based planning involves inventory and value assessment natural resources to allow communities to determine where development is most appropriate and how to maximize the integration of natural resources into the structure of the community. By determining the type, location and function of natural resources, a community can avoid the unintended consequences that often occur in the development of urban areas. A community can also use their natural assets to meet water quality goals, reducing property damage from floods and other natural events, protect wildlife and critical habitat, and add to the aesthetic value and the overall quality of life within the community.

By using a science-based approach, the community can reduce the chances for legal challenges and make it easier to comply with state, federal and other regulations.

About the directors

JEFF LOUX, Ph.D., is the director of the Land Use and Natural Resources Program, UC Davis Extension, a continuing education program that includes 140 courses, conferences and training sessions for more than 4,200 participants annually in the fields of land use planning and law, water resources policy, facilitation and mediation, natural resource management and water quality. He is also an adjunct faculty in Environmental Design, UC Davis. Loux has worked in the public and private sectors on land use planning, resource management and water policy matters for more than 25 years. He co-authored the book *Water and Land Use: Planning Wisely for the Future of California* (Solano Press 2004) and is completing another book on land conservation and open space.

TIMOTHY LAWRENCE, Ph.D., is manager of the Center for Water and Land Use, UC Davis Extension. Prior to moving to California, he spent 16 years with Ohio State University Extension where he was the founding director of the highly successful Ohio NEMO program and the award-winning campus ecology program, CampUShed. His educational programming includes issues such as agricultural health and safety, pesticide safety, land use, urban-rural interface, water quality, working with underserved populations and collaborative efforts with local and state jurisdictions.