7-19-2006

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Abstracts of presentations given on Wednesday, 19 July 2006, in session 22 of the UCOWR Conference.

WATER CONSERVATION AND DROUGHT MANAGEMENT IN ARID LANDS: AN OPEN SYSTEMS THEORY-BASED MODEL FOR SUSTAINABLE STRATEGIC PLAN DEVELOPMENT

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The predominant policy framework of water conservation and drought management is regulatory, with a command-and-control structure, in which regulatory agencies set the standards water suppliers and users must adhere to under threat of penalty. Within this framework, rational solutions and technologies are often proposed as a form of intervention to encourage water suppliers and users to change their practices. This framework is becoming the greatest obstacle to the improvement of water conservation and drought management practices in the Western states. The purpose of this paper is to introduce an open systems theory-based model of strategic planning to obtain knowledge regarding water conservation behaviors essential in implementing strategies for preserving this vital resource. Our focus will be strategic planning; the choices water suppliers and users must make with respect to which water conservation and drought management goals and objectives they should pursue. We take as a reference the biases that the state of New Mexico wishes to introduce with a law that requires municipalities, counties and other covered entities to adopt water conservation and drought management plans. Contrary to traditional mechanical assumptions of policy experts, that of agents being incapable of exercising genuine choice, the model presupposes that policy experts must work with purposeful systems whose responses are not fully determinate. The model shows that although policy adoption modifies the life-space of agents, it does so in ways that leads them more often than not to make the desired choices.

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