

THE CONNECTIVITY APPROACH

California Roundtable on Water & Food Supply | Ag Innovations



Connectivity defines the relationships that link the individual parts of a system to form a whole. It recognizes that the actions of one component within a system have an impact, both on the other components of that same system, and upon other, linked systems. The connectivity approach uses this understanding to better align the interactions between human systems (i.e., engineered resource systems, cultural norms, and institutions) and ecosystems (i.e., climatic, chemical and biological systems, and natural resources). This approach proposes that human systems are a central subsystem of the larger ecosystem (figure 2), rather than systems that exist apart from and only linked to ecosystems (figure 1). The goal of this alignment is to more effectively design for, and simultaneously achieve, benefits for agricultural and urban users, while ensuring environmental restoration, protection, and stewardship. For a more thorough discussion of connectivity and the connectivity approach, see [From Crisis to Connectivity: Renewed Thinking About Managing California’s Water & Food Supply](#).

Common Perception of Connectivity

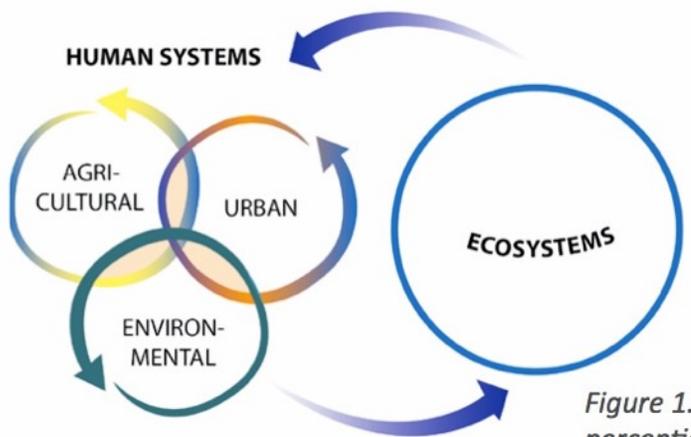


Figure 1. *percepti*

New Vision of Connectivity

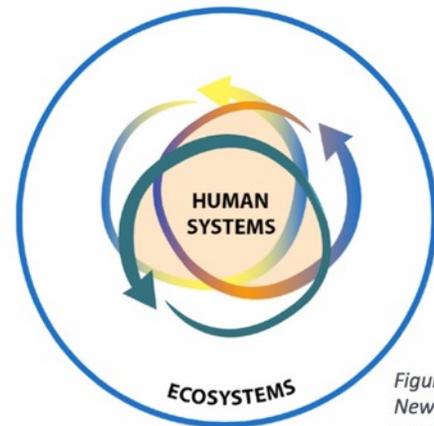


Figure *New vi*
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Connected Thinking	Socioeconomic and Institutional Linkages	Public and Stakeholder Engagement
<ol style="list-style-type: none"> 1. Understand natural systems: Integrated thinking and science-based solutions 2. Recognize that water, farmland, and habitat are finite resources that depend on each other 3. Emphasize connected-benefit projects 4. Recognize that food is water 5. Focus on long-term goals versus short-term fixes 6. Avoid unintended negative consequences of past and emerging approaches 	<ol style="list-style-type: none"> 1. Move beyond institutional goals and entrenchment 2. Address conflicting policies and regulations 3. Manage political and economic drivers 4. Shift from ‘one-size-fits-all’ solutions to collaborative, regionally appropriate, whole-systems strategies 5. Assess and manage unintended consequences 6. Design and implement approaches to manage the transition from existing to new practices 	<ol style="list-style-type: none"> 1. Communicate with the public 2. Increase awareness of educational programs 3. Encourage active participation, not just passive information consumption 4. Promote and support public actions that emerge from the ground up