

## **Dipsa: A Video Game for Stakeholder Engagement when Planning Future Water Resources**

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**Abstract.** The vision for the Dipsa game is to visualize and gamify water management so as to solicit regional water resource planning and management strategies from gamers for real-world locations. Gamers will explore various techniques including conservation, new supply, or new storage to meet demands for water across various uses cost-effectively, and are rewarded with experience points, level-ups, and Dipsa coins to spend in building their own water system within the game. As gamers share their personal water system with friends or with the world, other gamers can “work” for more reward. Since better, more optimal management strategies will be produced as more people explore the inherent tradeoffs between cost and vulnerability for a certain water system, a game will create great potential for decision support to achieve cost-effective water management from the bottom up by engaging a large community around real-world projects. Output from extensive modeling efforts currently being undertaken to characterize water supply, demand, and allocation mechanisms in arid regions will inform Dipsa with realistic data. We are midway through the process of developing the game, and would love to receive feedback regarding useful characteristics of the game.