



## Water Conservation: Save Water, Save Life!

Water scarcity and rising utility costs increasingly affect communities across the American West. Even small changes can save thousands of gallons and reduce bills, yet adoption remains inconsistent because real-world habits vary widely. Teams are tasked with designing a step-by-step plan to address water conservation for an urban area in the United States with a population of at least 100,000. The city chosen should hold significance to the team; please explain why it was selected. To maintain anonymity during the evaluation process, do not select the city where your college is located.

Your team's challenge is to use mathematical modelling and data-driven approaches to devise a comprehensive water conservation strategy tailored to your chosen city. Your submission should demonstrate the importance of your strategy while persuading local authorities and stakeholders to support it. Your proposal should be tailored to the unique economic, demographic, and geographic characteristics of your chosen city and address the following four components:

### Identify Needs

Use metrics to analyze demographic, economic, and geographic data to identify the needs of the population and gaps that exist in water consumption and conservation. Identify at least two individuals who work in the field and show how their work and expertise relates to the team's solution.

### State Strategic Goals

State your strategic goal that will drive your proposal to effectively fill in the gap between your city's current water conservation efforts and the desired state of water consumption.

### Create and Evaluate Your Model

Create innovative and cost-effective models that achieve your strategic goal. Perform a financial analysis to evaluate the costs and benefits of your models.

### Describe the Implementation Strategy

Develop a detailed step-by-step implementation plan to be presented to the city council. Identify key stakeholders, including local governments, community organizations, private developers, and residents. Highlight anticipated barriers (e.g., funding challenges, community opposition, marketing) and propose actionable solutions for overcoming the barriers. Ensure the strategy emphasizes feasibility and includes suggestions for securing public and governmental support.

### Official Rules

The submission must not exceed 15 pages. This does not include title page, table of contents, resources, and appendices. The paper must follow APA formatting and style guidelines. See [official rules](#) for more details.