



2025 Midwest Student Design Competition

COMPETITION GUIDELINES

INTRODUCTION: The Central States Water and Environment Association (CSWEA) Midwest Student Design Competition (MSDC) is intended to promote real world and hands on design experience for students interested in pursuing an education or career in the water/wastewater engineering and science fields. This year, the 6th Annual MSDC will be held on **Tuesday, April 22, 2025** in Madison, Wisconsin at the Monona Terrace Convention Center. This competition provides a unique opportunity for students at the college level to demonstrate their science and engineering skills and practices by researching and preparing a design for a water quality-based project and presenting their project to water industry professionals.

There are three (3) categories available for student teams to compete at the MSDC:

- WEF Wastewater Category
- WEF Water Environment Category
- GWS Category – “Global Water Stewardship – Santa Teresa, Costa Rica”

WEF Categories: The Water Environment Federation (WEF) categories at the MSDC are intended to feed into the national WEF student design competition at the WEFTEC conference on September 28, 2025 in Chicago, Illinois. The WEF categories require student teams to develop a problem statement that shall guide a student team’s design. WEF Problem Statements may be available for student selection if requested. The scope and extent of the project should be consistent with the level of a senior or graduate engineering/science design or capstone course. **There are two WEF categories;** a conventional Wastewater Design Category which includes traditional wastewater design projects and a Water Environment Design Category which includes contemporary engineering design topics related to stormwater management, green infrastructure, low impact development, water reuse, wetland construction, distributed treatment systems, groundwater treatment, and other related topics.

Being part of a WEF Student Chapter is not required to compete at the MSDC. However, students from the winning team(s) must register as WEF student members in order to participate in the international WEF student design competition hosted at the annual WEFTEC conference.

**** Each student team must develop a problem statement if competing in either of the WEF categories. WEF Problem Statements may be available for student selection if requested. This problem statement (not to exceed 200 words) shall be provided on the student team entry form.*

Global Water Stewardship Category: The Global Water Stewardship (GWS) Category requires student teams to design a centralized wastewater treatment facility and collection system for a Costa Rican community that has been chosen as a partner community by the Global Water Stewardship NGO. This year’s problem statement is titled “Global Water Stewardship: Santa Teresa, Costa Rica”.

**** GWS will provide all teams with a problem statement including all design requirements.*

[SHARED FOLDER FOR GLOBAL WATER STEWARDSHIP PROBLEM STATEMENT AND ACCOMPANYING DOCUMENTS HERE.](#)

WORKLOAD: All projects shall include a problem statement, development of alternatives, and a recommended solution. The depth of the effort should be comparable to preliminary design. A key criterion in the judging of the competition is the manner and level of effort spent in evaluating the alternatives, usually presented in the form of a decision matrix. Students are expected to work with little assistance from an advisor and/or professor, and the students are expected to work together as a team to find a solution to their problem. Students may use whatever references or resources they choose.

REQUIREMENTS: Student teams may consist of more than four (4) members, but only four (4) students may present at the competition. Student teams will compete through oral presentations, in PowerPoint (slide deck) format. Each presentation will be 15 minutes followed by a 10-minute question and answer period. **A design report is NOT required for the MSDC.** Although your university curriculum may require submission of a design report as part of a capstone or senior design course, the only requirement for the MSDC is the presentation and Q&A participation as these are the only items that are used for competition scoring.

TIMELINE: **February 12, 2025 @ 5pm CST:** Informational webinar to review MSDC guidelines and answer any questions from students or faculty. Webinar will be recorded for anyone who cannot attend.

March 15, 2025: Submittal of the Entry Form for the 2025 Student Design Competition is due. Submit to Alexis Krupa at akrupa@msa-ps.org or Joe Lapastora at lapastora@nmwrd.org.

April 22, 2025: CSWEA Midwest Student Design Competition will be held in Madison, Wisconsin at the Monona Terrace Event Center.

SCORING: Judges from the water/wastewater industry will score the designs based on 15-minute presentations and 10-minute Q&A sessions. The category winners will be announced on the day of the competition.

AWARDS:

WEF Competition Categories: The winning teams from each WEF category will receive a stipend to compete at the WEFTEC student design competition scheduled for September 28, in Chicago, Illinois. Stipends for travel and lodging expenses to Chicago may vary depending on the student team's respective WEF Member Association (MA). The winning teams will also have their designs featured in a future Central States Water Magazine issue.

Prizes for the winning teams at the national WEFTEC competition vary from year to year. Monetary awards provided by WEF for the top 4 design teams of each category are typically as follows: 1st place \$2,500, 2nd place \$1,500, 3rd place \$1,000, 4th place \$750.

Global Water Stewardship Category: The winning team from the Global Water Stewardship category will receive a travel and lodging stipend of up to \$1,000/student, for up to four students, to accompany GWS members on an upcoming GWS service trip to Costa Rica. The winning team will also have their designs featured in a future Central States Water Magazine issue.

CAREER FAIR: A career fair will be held on the day of the design competition for any students who are interested in making connections with reputable consulting firms and vendors across the Midwest. The career fair typically occurs after all presentations are completed while students wait for judges to determine the category winners.

ARRANGEMENTS: Many teams may wish to stay overnight the night before or after the competition. CSWEA shall provide a stipend in the amount of \$500 per team for lodging and travel expenses to assist student teams from Illinois, Wisconsin, and Minnesota to present at the Midwest Student Design Competition in April. Funding is also available to student teams who fall outside of the States listed above. Teams are asked to manage their own budgets and provide receipts for reimbursement.

FOR ADDITIONAL INFORMATION, CONTACT:

Alexis Krupa & Joe Lapastora
CSWEA Midwest Student Design Competition (MSDC) Co-Chairs
akrupa@msa-ps.com and lapastora@nmwrd.org