



THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA



# WELCOME TO WE4G 2024!

## WHAT IS WATER ENGINEERING 4 GOOD?

Water Engineering 4 Good (WE4G) is an online STEAM competition for middle school through high school students within the Metropolitan Water District of Southern California service area. Teams use their creativity and interest in sustainability to engineer a prototype of a device or system to conserve water inside or outside the home, in industry, in agriculture, or in water treatment and distribution.

They will learn from water industry professionals and through their own research about how climate change is affecting Southern California's water supply. Through teamwork they will develop a concept, create a CAD model of their conservation solution, and build a small-scale physical model out of recycled/upcycled materials. The teams will also create a video journal and social media posts to document their progress and share their knowledge and approach with others. At the conclusion the teams will give a multimedia presentation of their engineering solution to a panel of water industry experts. WE4G culminates in an online awards event on March 21, 2024.

Through WE4G students learn valuable STEAM, critical thinking, teamwork and presentation skills as they work on a project relevant to their community. Importantly they gain early exposure to water industry careers and recognize their potential to be part of the solution for climate change.

## WE4G 2024 Program Details:

- The program kicks off in October 2023 with a webinar for teachers and concludes in March 2024 with an awards ceremony for the teams.
- A WE4G Engineering Workbook guides teachers and teams through the program. The five elements are: 1) Define the Problem Through Research, 2) Plan the Project, 3) Build Your Solution, 4) Create a Social Media Campaign, and 5) Present Your Solution.
- WE4G is a competition; teams earn points for the deliverables they complete and submit by the key deadlines.
- WE4G is an online program so timely and frequent communication is critical to a team's success. Weekly virtual office hours will be available from October to March. Metropolitan's WE4G program staff are ready to assist.

## Join in WE4G 2024:

Please complete and return the attached **Team Information Sheet** so you will receive future communications. Please email it to Mark Moss, program coordinator for WE4G, at [mmoss@mwdh2o.com](mailto:mmoss@mwdh2o.com).

You will be contacted from time to time by Mark Moss and Daiva Savickiene, who handles administrative activities for the program. You will receive communications on webinar invitations,



scores, program reminders and questions from other teachers or teams. Please feel free to send an email if you need help, aren't sure about something or need additional information.

## What is needed to participate?

- **Teachers**
  - ❖ To motivate, assist, organize and guide the student team
  - ❖ To help with creating small groups or micro teams to complete all assignments
  
- **A group of motivated students**
  - ❖ The program features activities to be completed by students with different skills and interests. Some things will be done as a team, some individually, and some in small groups or micro teams.

## Timeline

- **Kickoff**
  - ❖ WE4G kicks off with a teacher webinar in mid-October to provide program information and background information on water resources in California.
  - ❖ The Team Information Sheet asks about the best day and times for webinars.
  - ❖ The date selected will accommodate most. Additional webinars will be provided if needed. We want everyone to participate!
  
- **Deliverables**
  - ❖ WE4G project submittals are due November through March.
  
- **Final Presentation**
  - ❖ Teams present their engineering solutions on March 14, 2024.
  
- **Award Ceremony**
  - ❖ The online award ceremony will occur on March 21, 2024.

Thank you in advance for all that you will do to help students succeed in WE4G. We look forward to working with you. Please don't hesitate to email your questions or comments.

*Mark Moss*

Metropolitan Water District  
WE4G Coordinator  
[moss@mwdh2o.com](mailto:moss@mwdh2o.com)



## 2024 Team Information Sheet

Please fill in the information for your team below. Also, please list any additional adults or students who should be included in all communications related to the program.

### Middle School / High School Team Information

Name of School or Group: \_\_\_\_\_

Name of Advisor: \_\_\_\_\_

Address: \_\_\_\_\_

School Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

Email: \_\_\_\_\_

**Best days/times for a WE4G 2024 Teacher Webinar and Kickoff during week of October 16-20**

**(~2 hrs.):** \_\_\_\_\_

**When is your school's winter break?** \_\_\_\_\_

**When is your school's spring break?** \_\_\_\_\_

Additional team contacts that you would like included in our contact list:

Name: \_\_\_\_\_ Email: \_\_\_\_\_

Name: \_\_\_\_\_ Email: \_\_\_\_\_

Return this form to Mark Moss

[mmoss@mwdh2o.com](mailto:mmoss@mwdh2o.com)

by **5:00 pm on Thursday, September 21, 2023**