Australian Stockholm Junior Water Prize 2023

GUIDELINES & INFORMATION KIT

AUSTRALIAN WATER ASSOCIATION

SIWI Stockholm Junior Water Prize AUSTRALIA

xylem Let's Solve Water

www.awa.asn.au/asjwp

What is the Stockholm Junior Water Prize?

The Stockholm Junior Water Prize (SJWP) is the most prestigious youth award for a water-related science project at high school. The prize taps into the unlimited potential of today's youth as they seek to address water challenges.

Created in 1997 by the Stockholm Water Foundation, the prize was established to mirror the adult Stockholm Water Prize. The Stockholm International Water Institute facilitates the international competition and the student prize enjoys the patronage of HRH Crown Princess Victoria of Sweden.

The Australian Water Association organises the Australian competition with support from Xylem.

The Australian Stockholm Junior Water Prize (ASJWP) aims to inspire students to develop solutions to real water problems and encourages students into careers in the international and Australian water community.

The ASJWP winner goes on to represent Australia at the international competition in August 2023 in Stockholm, Sweden where national winners from over 30 countries travel to participate in a week-long cultural exchange program and compete for the international prize.

Task Outline

Students are invited to develop practical and innovative water research projects on a local, regional, national or global topic that has the potential to improve quality of life and/or the environment. All projects must use scientifically accepted methodologies for experimentation, monitoring and reporting results, including statistical analyses.

Steps:

1 Choose a topic to research

This is your chance to investigate something you are passionate about, something that interests you or something you think could make a real change. The sky is the limit!

2 Decide on a hypothesis or key question

The hypothesis is an 'educated guess'. What do you think your results will achieve? What do you want to know? Why is it important that you find this out?

3 Research background information

This is important in all projects. It's time to discover what has been done, if anything, on this issue. What part of this research can help you undertake your experiments?

4 Undertake experiments and research

An experiment starts and finishes with factors that change during the experiment. These are the variables. This is where you might want to seek assistance from your science teacher to ensure you undertake accurate experiments or monitoring.

5 Analyse results

Take some time to carefully review all the data you have collected from your experiment. Use charts and graphs to help you analyse the data and patterns. Did you get the results you had expected? What did you find out from your experiment?

6 Write a scientific report with results and conclusions

This is where you put it all together. Keep reading for more tips on writing the report.

7 Create a 3-minute video pitch of your project

This short video is a fun way for you to explain your research to the judges, so they can decide on which entries to shortlist. Make it as engaging and imaginative as you can!

8 Shortlisted entries present to judges via video conference

If the judges shortlist your entry, you'll present your research to them via video conference.

Project Criteria

The project can earn a maximum score of 115 points and is judged using six different criteria. A score from 1 to 5 is assigned (1 being the lowest score).

Relevance

- Does the project target an important challenge within the water environment?
- Is the project scientifically relevant (can the scientific level be related to basic, applied research and are the results applicable for implementation)?
- Can the project contribute to the improvement of the quality of life or the environment?
- Is the project proposing innovative solutions to unsolved problems?
- Does the project increase the awareness of water issues?
- Does the project integrate environmental and societal issues?

Creative ability

- How to pose a problem
- How to solve a problem
- Analysing data
- Experiments or investigations
- How to mediate and make the affected parties aware of the problem

Methodology

- Is there a clearly defined idea on which a result can be achieved?
- Is the problem well defined?
- In what way has it been limited?
- Has the work been planned accordingly?
- Is there adequate information upon which to draw conclusions?
- Have the possible misinterpretations of the data been taken into consideration?
- Are there any new questions or suggestions for continued research?

Subject knowledge

- Is the student familiar with literature and ongoing research in the field?
- Upon what sources has the work been based?
- Is the list of references satisfactory? (Have the references really been studied?)
- To what extent have sources of popular science been consulted?
- Is the author familiar with the topic dealt with in his/her work?
- Is the author knowledgeable of ongoing research in the field? Terminology?
- Is the author familiar with alternative solutions?

Practical skills

- Has the student made the exhibit themselves?
- Have they carried out the measurements, etc.?
- What help has been provided by parents, teachers, professionals, etc.?
- Has advantage been taken of material available in school?
- From where has the equipment been obtained for the exhibit? Was it self-made?
- How well have available techniques been used?

Report and presentation

- Can the student present the work in a proper and informative way, both written, verbally and through an exhibit?
- Is the content of the work well structured?
- Is the level of text, illustrations, diagrams and language in the written report sufficient?
- Is the display appealing with regards to any special qualities and personal touch?
- Is there a relationship between the display and text material?

Eligibility & Judging

Eligibility

All Australian school students aged between 15 and 20 years of age can enter the ASJWP.

Entered projects must have been developed while still in **secondary school**. If students have just graduated from secondary school, but have not yet started university, they will still be eligible to enter the competition.

Individuals and groups of up to three students are eligible to enter.

Judging

A judging panel to assess nominations for the ASJWP is established by the Australian Water Association and consists of between six and nine members of the water industry.

The judging process is outlined below:

- Review of student papers based on project criteria, outlined in this document.
- Review of students' three-minute video pitch project overview.
- Review of shortlisted student presentations via video conference.
- Selection of national winner based on both paper and presentation scores.
- Opportunity for the top four students to present their projects to Australian Water Association members and water industry professionals with an announcement of the winner live via webinar.
- Official winner presentation at the Ozwater'23 Gala Dinner.

Prizes

Each participant receives an Australian Water Association certificate. The Australian winner receives travel and accommodation to Ozwater'23 in Sydney, May 2023 to attend the National Awards Gala Dinner; a glass trophy; and a trip to Stockholm in August 2023* to compete in the international Stockholm Junior Water Prize.

**This is subject to international travel restrictions.*

The Australian winner will automatically join the Water Tank, an alumni community of the competition to connect and collaborate and advance their project and career.

The overall international winner of the Stockholm Junior Water Prize receives US$15,000 and a crystal sculpture. The winner's school receives US$5,000.

Developing a Paper

The following are recommendations from the ASJWP judging panel, based on their experience in reviewing projects.

Projects should not only include a problem statement, but clearly explain how the project can contribute to a solution. Even if the project itself may not solve the problem, it should demonstrate how the activities in the project can play a role in a solution.

Each project should try to address a cause-effect solution. This means studying not only the environmental effect, but also the causes behind and solutions to the problem.

Development-oriented research projects are strongly welcomed. However, it is important when presenting an applied solution to a problem that the project refers to previous work. Include an explanation of the gaps you are filling that others have not studied before.

If the project focuses on raising awareness and creating a change in the way people manage water, it is important to document the work in a way that gives quantitative evidence to what has been achieved.

If a project is a long-term school project, clearly show what has been done by whom over the years. Show what you or your team of up to three students has contributed to the final consolidated result.

It is important that you clearly show that you were responsible for conducting the research and developing the written project.

Finally, it is important that you show that you have read relevant literature on the topic for your own understanding and orientation.

Paper Guidelines

These guidelines are designed to help students prepare their paper in a professional format for the Australian Stockholm Junior Water Prize competition. Please follow them as closely as possible.

Students have the option of submitting an extended abstract or a full paper. The following guidelines relate to preparing the extended abstract. For the full paper template please contact Laura Steffan at **lsteffan@awa.asn.au**. Instructions for how to set out your paper are below.

NB: The winner of the Australian Stockholm Junior Water Prize will need to prepare a full paper to submit to the International Stockholm Junior Water Prize (assistance will be provided).

Instructions

Use capitalised and underlined headings for:

- Introduction
- Highlights
- Methodology
- Results
- Discussion
- Conclusion

Any subheadings should be bolded.

Page Limit – Maximum 4 pages of text plus maximum 4 pages of supporting tables, graphs and references.

Page Size and Layout – A4 size paper (210 x 297mm), with overall margins of 20mm on all sides. Use font type Arial for the entire document.

Ensure you run a spell-check and ask a peer to proof your abstract prior to submitting.

Submit your abstract or paper via the online form: **www.awa.asn.au/asjwp**.

If your abstract does not meet the submission requirements, it will not be processed for review.

Title Page

You may design the title page of your paper as you wish, but it must contain the following information in an easily legible format:

- Entry to the Australian Stockholm Junior Water Prize 2023
- Paper title
- Your name(s)
- Name of your school

Introduction

This section sets out your project in broad details. Describe the water-environment problem you studied and why it was important. Put your project in its scientific setting, detailing at least the most relevant work done on your project topic by others. It is expected that you understand the scientific context of your project.

Highlights

Highlights are a short collection of bullet points that convey the core findings and provide readers with a quick textual overview of the abstract/paper.

- Include 3 to 5 highlights
- There should be a maximum of 85 characters, including spaces, per highlight
- Only the core results of the paper should be covered

Methodology

In this section you must detail all the experimental procedures that you used in your project – all methods and all materials.

Results

Present all the results you obtained in your research as either figures or tables, along with an appropriate description, to be included at the end of the abstract. Colour images are welcome. Choose whichever format you think is most suitable for the set of results you are presenting.

Discussion

This is an extremely important section which the judges pay close attention to, so think about it very carefully.

Here you should include the more important analyses of your results. You must discuss how the results are important to the water environment problem you were studying, how novel they are, and how they relate to the results of others working on a similar project.

You should also discuss your results in the wider scientific and/or social context and explain your answers. How does your project contribute to improving quality of life and/or the environment?

If your project is completely novel, you may not be able to discuss your results in relation to the results of others. In such a case, you must discuss your results in the wider scientific and/or social context only.

Conclusion

Your conclusions should be short and to-the-point. Please remember that this section is only for your conclusions. It is not the place to discuss your results.

If there is anything in these guidelines that you do not fully understand, ask someone for help. This research paper could easily be considered university level work, so don't be afraid to ask!

References

The purpose of providing a reference is to enable interested parties to obtain and read the reference, so you must provide all the necessary information. If you are familiar with the Harvard System, you may use it. Otherwise, we recommend you use this simpler method:

In the text, give references as numbers in square brackets. For example:

"Smith [1] found that ..., but other workers have found the opposite [2, 3]."

Immediately after the conclusion section you must list in detail all the in-text references you have made. The list is numerical, using the numbers you used in the text. How you present this reference depends on the type of publication.

a. Book:
Surname, Initials (Year) Title of Book. Publisher's Name, City and Country (or State if USA) of publication.

b. Journal or Paper:
Surname, Initials (Year). Paper Title. Full Name of Journal Volume Number, First and Last Page Numbers of the Paper.

c. Newspaper or Magazine Report:
[1] "Our rivers are polluted", Daily Express (London, England), 5 June 2003, p. 6.

d. More than one Author:
[1] Smith, AB, Jones, CD and Bull, EF (1996).

e. Website:
Author (if any). Title of the site. URL (date accessed).

Important Information

Closing Dates

Completed entries for the 2023 competition close **Friday, 9 December 2022** at 5pm (AEDT).

How to enter

1. Submit your project outline via the online form on our website. Include the topic you'll be researching and a 150-200 word overview. You can also let us know if you'd like some support or expertise to help with your project.
2. Complete your project according to the SJWP criteria and project guidelines.
3. Download the Prize Nomination Form from **www.awa.asn.au/asjwp**.
4. Submit your entry online **(www.awa.asn.au/asjwp)** with these attachments:
   - ✓ A completed nomination form with signed declarations
   - ✓ The extended abstract or full paper in MS Word and/or PDF format
   - ✓ Biography (180-250 words) in MS Word format
   - ✓ Photo of nominee (jpg)
   - ✓ 3-minute video pitch

Timeline

Friday, 9 December 2022
Completed project due.

Week of 13 March 2023
Shortlisted students present 10-minute presentation to judging panel on their submitted project via video conference.

Late March - Early April 2023
Top four students to present their projects to Australian Water Association members and water industry professionals with an announcement of the winner live via webinar.

Wednesday, 10 May 2023
Winner presented with award at Ozwater'22 in Sydney.

Late August 2023
SJWP Ceremony held during World Water Week in Stockholm.

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Because Every Drop Counts

Solving Water Around the World

Xylem Watermark Improves Access to Water and Education on Water Issues

Committed to our mission. Xylem Watermark, our corporate citizenship and social investment program, has a twofold mission: provide and protect safe water resources for communities in need, and educate people about water issues. In a world where more than 650 million people lack access to water, and 2.4 billion lack improved sanitation*, we're using our expertise and technologies to make a difference.

Focused on urgent needs.

We work to create measurable results in three key areas:

School and community projects, providing safe water, sanitation, and hygiene (WASH) education to students, teachers and families

Disaster response, delivering water in the aftermath of emergencies

Disaster risk reduction, securing water in vulnerable areas

Collaborating with best-in-class nonprofits.

Beyond our focus areas, Watermark addresses a wide range of water challenges by offering nonprofit organizations financial support, water technology, sanitation equipment and hygiene education. Our signature partners include:

Planet Water	MercyCorps	China Women's Development Foundation
Water tower projects & sanitation & hygiene education	Emergency response & disaster risk reduction	School projects in China
water for people	EARTHECHO INTERNATIONAL	AVINA
School & community projects	World Water Monitoring Challenge™	Water cistern projects & sanitation & hygiene education in Brazil

Involving our employees.

We amplify the impact of Watermark through our employee engagement program. Their volunteer work and financial contributions advance our sustainable solutions.

PRODUCING RESULTS

201,545 BENEFICIARIES

$307,000 EMPLOYEE CONTRIBUTIONS PLUS CORPORATE MATCH

38 COUNTRIES

400+ VOLUNTEER ACTIVITIES

35,000+ VOLUNTEER HOURS

In 2017, employees from Xylem logged more than 35,000 volunteer hours in activities aimed at providing and protecting safe water resources and educating people about water, sanitation, and hygiene. Xylem Watermark last year launched a service-focused employee engagement program in support of this mission with a goal of logging 100,000 volunteer hours in three years. Over the past two years, employees have logged more than 56,000 hours in water related activities that took place in communities in which Xylem employees work and live.

*Source: UNICEF/WHO

Make your mark.
To learn more about Watermark, visit **xylemwatermark.com**