

# HNSP Alumni Survey 2024

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## EXECUTIVE SUMMARY

Beginning in 2023, the HNSP Secretariat conducted a review and update of its processes and policies led by the HN Policy Officer, including an evaluation of the legacy and impact of the programme, and a synthesis report reflecting on the achievements from the first 10 years of the programme. As part of this process, the first *Hydro Nation Scholars Programme* (HNSP) Alumni Survey was created and launched in August 2024. The survey gathered feedback from alumni to assess the programme's impact on their careers and its role in advancing water-related research. Conducted with a strong response rate of 85% (23 out of 27 alumni), the survey sought to update alumni records, evaluate HNSP's contributions to professional development, and gather insights into stakeholder engagement in alumni projects.

Key impacts highlighted:

1. **Stakeholder Engagement:** Scholars engaged with a range of stakeholders, including supervisory teams, government agencies, and international bodies. Engagement positively influenced research relevance, informed methodology, and enabled policy impact.
2. **Programme Impact:** Alumni reported impacts such as raising awareness on environmental issues, influencing policies, contributing to capacity building, and promoting practical applications. Training in impact assessment was identified as essential to help the scholars conceptualise their pathway to impact from the start of the project, prompting the integration of policy and practice impact training into the programme.
3. **Personal and Professional Development:** Alumni credited the HNSP's structured training, mentorship, and networking for significant skill-building and career readiness. Graduates expressed high satisfaction, and most continued to work in the water sector, with nearly 60% remaining in Scotland, and a significant portion pursuing roles directly tied to their PhD research.

As the programme is a partnership between academia, government, and industry, it is driven by policy needs with benefits to multiple stakeholders. All projects noted impacts to Scotland's water sector and beyond via generating general awareness, practice/capacity building, significant contributions to government and institutional policies, as well as tangible actions in public health and environmental management. Further, the feedback regarding the quality and impact of the bespoke training offered to the scholars indicates that our model provides a platform to support the professional development needs of our students and is delivering early career researchers with the specific and targeted skills that will enable them to become the water leaders of the future, with unique insights into the research that drives future policy and practice.

This survey underscores the HNSP's success in supporting alumni career trajectories and highlights alumni as valuable advocates for the programme. It offers a foundation for ongoing programme improvements and positions the alumni network as integral to HNSP's future success. Some areas for further development identified by the alumni included alumni engagement, enhancing training in quantitative skills and media, strengthening stakeholder engagement, data access, and mentorship. Alumni expressed a desire for long-term engagement via stronger connections, suggesting reunions, mentoring roles, and networking events to build a more robust alumni community.

Further, the results of the survey reinforced the important role of the programme in contributing to the wider Hydro Nation agenda by:

- Developing understanding of how and where best to develop the value of Scotland's water resources;
- Focusing on enhancing Scottish capacity in areas of existing research excellence;
- Providing new research and insights where there are gaps related to water resources in Scotland;
- Developing research and insights of significance to global water issues; and
- Contributing to the high-level policy debate on domestic and global water issues.

This report provides the summary of the survey results and is the first part of a two-part comprehensive impact review. The second part of this process began in September 2024 with the preparation and trialling of a stakeholder engagement survey and will cover project and programme impact from a policy/practice perspective.

## Background

In 2023, the HNPS Secretariat initiated a comprehensive review of its processes, policies, and overall impact. Central to this review was the creation of the first Alumni survey (**Appendix A**) aimed at evaluating the programme's influence on past scholars and their careers. The survey's main goals were to:

1. **Update the Alumni Database:** Collect confidential personal and professional data for database maintenance.
2. **Assess Programme Impact:** Understand how the HNPS contributed to scholars' experiences and career development.
3. **Project-Specific Insights:** Gather information on stakeholder involvement and the generated impact of individual projects.

This feedback is crucial for justifying future funding and demonstrating the programme's value. Objective three also supports the identification of case studies for further analysis through stakeholder engagement surveys (**Appendix B**) and interviews. These tools aim to enhance understanding of information flow between project leads and stakeholders and measure the benefits gained on both sides.

Combined, data from the alumni and stakeholder surveys will guide improvements in HNPS processes, training, and impact documentation. It will also serve as evidence for reporting to SGWIT and the HNPSG, showcasing the programme's overall contributions and successes.

This document provides a summary of the results of the **Alumni Survey**.

Responses are anonymised for privacy reasons.

## Overview

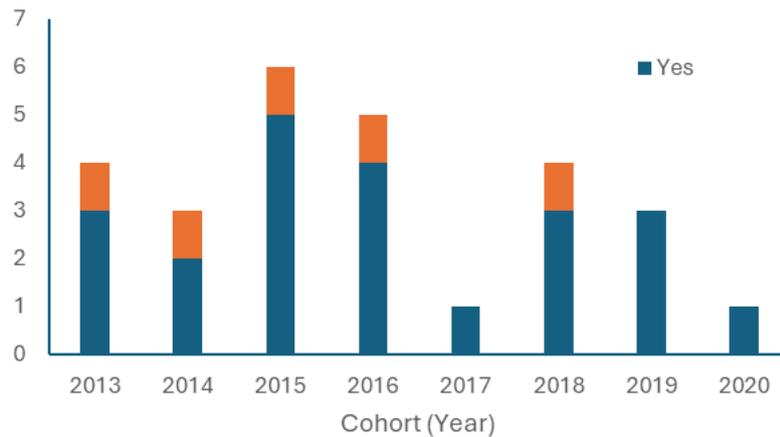
Date launched: 26<sup>th</sup> August 2024

Closing date: 20<sup>th</sup> September 2024

Total alumni: 27

Total responses: 23 (85% response rate)

Average time to complete: 29:58



**Figure 1** Replies received out of total of alumni per cohort (Year). Yes, indicates a response.

## Structure and Analysis of Survey

The HNSP Alumni survey was structured into sections covering personal information, PhD-related details (including stakeholder interactions and impact), personal development (focusing on training and networking, as well as the programme's role in future career preparation), post-graduation status (current job and responsibilities), and space for additional comments.

The survey included a mix of multiple-choice, Likert scale, and open-text questions.

Quantitative responses were processed in Excel and visualized using graphs to display response distributions by number or percentage. Open-text responses were analysed through:

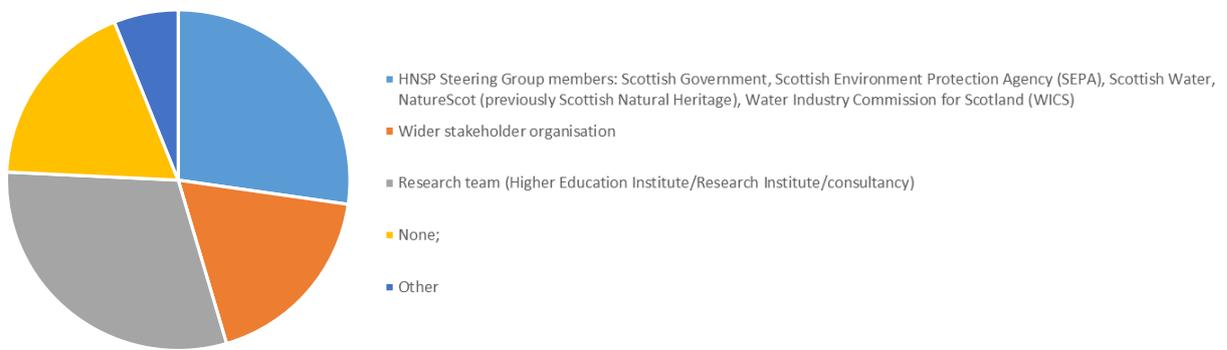
- **Thematic Analysis:** Identified recurring themes and their frequency.
- **Sentiment Analysis:** Evaluated whether responses were positive, neutral, or negative.
- **Summary and Recommendations:** Insights and recommendations were synthesized for each question, with illustrative quotes included.

This comprehensive analysis approach allowed for a nuanced understanding of the feedback and informed actionable recommendations for future improvements.

## Project Specific Questions

### Stakeholders Involvement in Project

The Alumni survey revealed that scholars typically engaged with stakeholders across five defined categories. A majority indicated interactions with their research supervisory teams and HNSP Steering Group member organisations (**Figure 2**), underscoring the mentorship programme's key role. Other stakeholders were connected to project-specific themes and goals, including interviewees, local and national authorities like Aberdeenshire Council and NHS Grampian, as well as international entities such as Transboundary Basin Commissions and in-country partners. Conversely, 26% of respondents reported limited or no formal stakeholder involvement, while acknowledging that their projects could have been enhanced by such engagement.



**Figure 2** Stakeholder engagement in past HNSP projects.

**Open Text: Briefly comment if/how your stakeholder engagement contributed or benefitted to your PhD research. If no contribution, please write None.**

Survey responses highlighted varying levels of detail and significance in how stakeholder engagement influenced PhD research. Many scholars noted that such engagement had a positive impact, crucially shaping their research approach, aligning their projects with practical needs, and ensuring policy relevance. Key contributors included Scottish Water, SEPA, and NHS Highland, who provided valuable data, feedback, and guidance. This collaboration enabled students to develop tools, gather data, and produce policy-relevant evidence, enhancing the practical application of their work.

However, some respondents faced challenges such as project disruptions due to changing roles or insufficient data availability. A small group indicated minimal or no direct benefit from stakeholder involvement in their research.

#### **BOX 1 Examples of positive interactions from stakeholder involvement in projects.**

*"I had regular meetings and interactions with Scottish Water and SEPA since my first year, as stakeholders for my project. Their input was crucial in helping me identify my study site and in ensuring that my work remained relevant to policy and their research interests and priorities. I produced evidence and presented preliminary results at least once a year in a joint stakeholder meeting to answer key questions including the efficiency of the different stages in removing*

*microplastics, and the concentration in effluent water to assess if the WWTP was an important contributor to MPs in the environment.”*

*“Stakeholder engagement was a core component of all chapters of my PhD thesis. Firstly, I interviewed stakeholders across the HNSP steering group, as well as wider stakeholders and higher education and research institutes. Secondly, I held stakeholder focus groups and workshops to co-develop a decision support tool. In developing the decision-support tool I signed a collaboration agreement with colleagues from SEPA and Scottish Water, of whom become co-authors in my research chapters and informed my methodology.”*

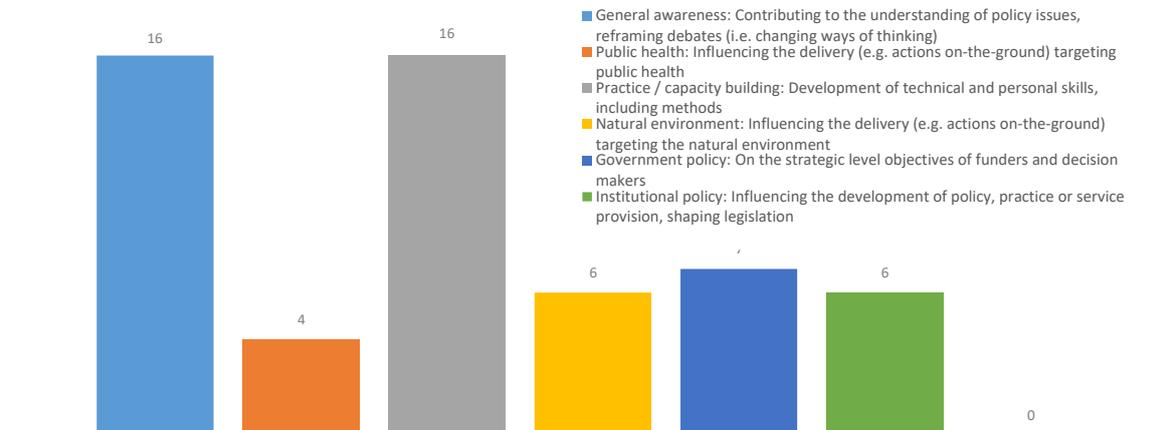
*“Stakeholder engagement with NHS Highland, SEPA, and Scottish Water greatly benefitted my PhD research. The One Health Breakthrough Partnership was in an early-stage while I was undertaking my PhD, and through the Caithness General Hospital study (co-funded by NHS Highland and others) I had the opportunity to lead the research on behalf of the OHBP to investigate hospital-derived pharmaceutical pollution in urban wastewaters. This study formed a chapter of my PhD thesis and is a corner stone in the OHBP's backlog of successful cross-sector and multidisciplinary engagement activities. Stakeholder engagement also benefitted me personally as I could see the impact and use of my research findings outside of academia (e.g., in guiding policy and decision-making by public agencies in Scotland).”*

*“The stakeholders I engaged with significantly contributed to shaping the direction of my research through a different stakeholder engagement approach such as interviews, consultation meetings, focus groups, and co-creation workshops.”*

*“Stakeholder engagement was highly beneficial for my PhD research for mentorship, data collection and analysis, as well as understanding the complexities of the WEF Nexus in the Zambezi basin, and particularly in Malawi. Engagement with IIASA in Vienna for the summer school in 2019 was beneficial in terms of mentorship and advancing my PhD research with tools developed at IIASA under the Integrated Solutions for Water Energy and Land (ISWEL) Project.”*

## Project Impact

Respondents identified the main impacts of their work in the categories of general awareness and practice/capacity building (**Figure 3**). Some scholars reported significant contributions to government and institutional policies, as well as tangible actions in public health and environmental management. Notably, when alumni previously provided feedback for the KEI Overview Paper and Ten-Year Synthesis Report without guidance, a few indicated no impact. However, when offered a framework based on CREW's impact measurement system, all respondents identified some impact type. This underscores the importance of early guidance on understanding and achieving impact, which can help scholars recognize and document their contributions from the start. As of 2023, policy and practice impact training was integrated into the Residential Course and made available to all scholars from their first year, reinforcing the programme's commitment to fostering awareness and impact-oriented research.



**Figure 3** Types of impact generated from past HNSP projects, according to scholars.

**Open Text: Please elaborate on the specific impact of your project.**

Overall, further details provided by individual alumni on the impact can be grouped into the following common themes:

- **Research Recognition:** Some respondents mention that their research gained recognition, which led to significant impacts, including publications or influencing policies. **Example:** “*My PhD research was noticed by key stakeholders, leading to further collaborations.*”
- **Emerging Issues:** Alumni highlighted that their projects addressed emerging global issues, such as environmental concerns. **Example:** “*My work on microplastic pollution was timely and had a significant impact on raising awareness.*”
- **Policy Influence:** Some projects played a role in shaping or informing public policy in relevant sectors, like environmental conservation or public health. **Example:** “*The research findings were used to inform national policy decisions.*”
- **Career Advancement:** Alumni credit their projects for contributing to their academic and professional growth, helping them secure positions or further opportunities. **Example:** “*My project opened doors for international research collaborations and postdoctoral opportunities.*”
- **Broader Societal Impact:** Some projects had a direct impact on communities or industries, contributing to societal improvements or technological innovations. **Example:** “*My research helped introduce more sustainable practices in local industries.*”

In terms of the overall Impact, the alumni appear to value how their projects contributed to advancing their fields, influencing stakeholders, and providing opportunities for further academic and professional development.

**BOX 2 Examples of project impact highlighted by alumni.**

*“I was lucky that my PhD research was noticed by the Government of the Netherlands, with whom I developed a 3-year project in the context of its Valuing Water Initiative. This has led to further attention to our work, further publications (academic and policy-focused), global outreach to water professionals, development of training materials for water professionals, and dissemination of my PhD findings via webinars. [www.valuingwaterinitiative.org](http://www.valuingwaterinitiative.org)”*

*“My project helped SEPA and Scottish Water in addressing the complexity and uncertainty associated with collaborative and future-focused decision-making, informing their One Planet Choices decision-making methodology. My PhD findings indicated that current policy aimed at addressing diffuse pollution in priority catchments in Scotland wouldn't be resilient to future climatic, population and land cover change. Further, it was identified that the current siloed approach to water management in Scotland would not address water quality issues now or in the future, and instead sectors would need to adopt collaborative and innovated systems scale water management actions.”*

*“My project has significantly contributed to raising wider awareness on pharmaceutical pollution and the benefit of sustainable healthcare interventions to reduce and mitigate this environmental and climate issue. I developed policy briefs which was widely shared with policymakers working and interested in the issue, particularly in the NHS, Scottish Government, and the UK Parliament. Recently, the Scottish Government produced mental health prescribing guidelines that considered the issue of pharmaceutical pollution.”*

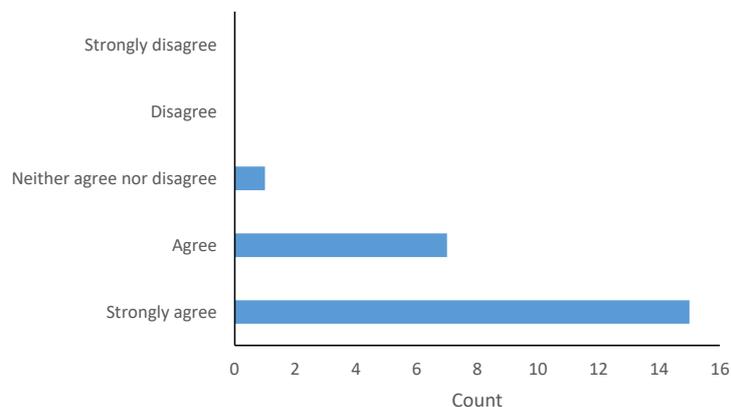
*“My project involved collaboration with researchers from the Indian Institute of Technology, Kharagpur, where I did field placements to verify the efficacy of the photocatalysts I had synthesised. This also involved engaging with local communities to understand the sources of their drinking water, and what treatment methods they would be open to.”*

*“In order to provide an accessible method to estimate the microbial contamination risk of a private water supply for users, a new publicly available web tool was created ([link: https://shugi.shinyapps.io/risk\\_analysis/](https://shugi.shinyapps.io/risk_analysis/)). This web tool aims to enable private water supply users and owners to determine quantitatively the microbial risk associated with their supply. The design and usability of the tool catered for users with a varying range of knowledge on private water supplies and contamination risk factors. In addition to private water supply users and owners, the web tool could also be utilised by local councils, government agencies or other private water supply stakeholders, for uses such as prioritising a group of private water supplies based on their relative risk. The web tool includes references to relevant private water supply information from resources such as government websites. By linking to these resources, the user can easily be informed on how their supply could be improved. In addition, providing details of relevant governing bodies encourages dialogue and communication between private water supply users and other stakeholders. The overall objective of the web tool was to provide useful assistance to the user in the management and understanding of the risks to their supply. User evaluation of the web tool was conducted with the participants of my study through an online feedback survey. The survey aimed to evaluate the web tool from the perspective of targeted users and was written up as a chapter in my thesis.”*

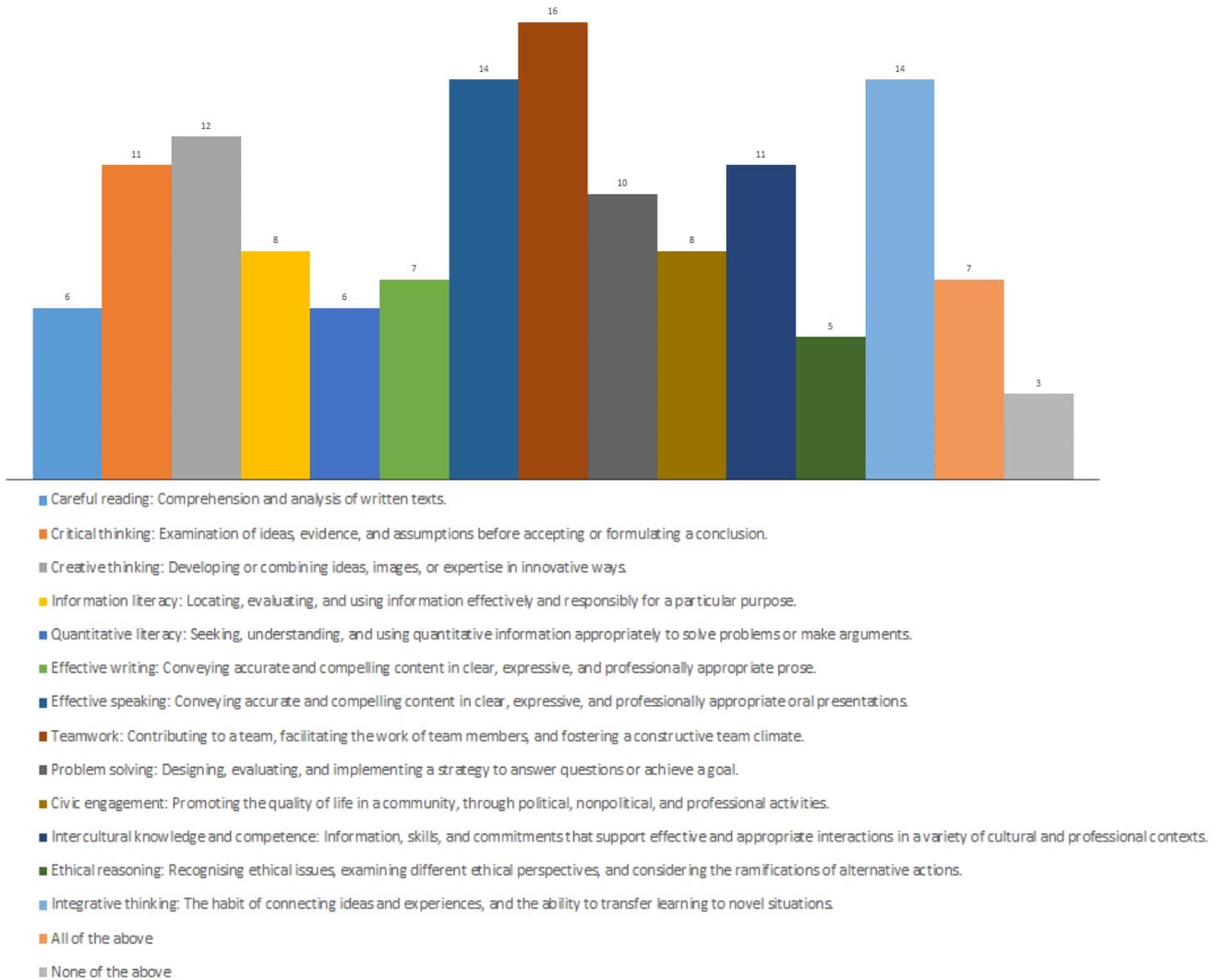
## Personal Development

The survey included questions to assess the effectiveness of the bespoke HNSP training programme, which is designed to help scholars build skills and foster stakeholder relationships from the beginning of their studies. The findings indicated that most alumni viewed their HNSP experience positively. They reported that the programme significantly contributed to their knowledge, skill development, personal growth, and professional readiness for post-study careers (**Figures 4-7**).

Overall, respondents felt well-supported by the HNSP throughout their studies (**Figure 8**). Additionally, satisfaction with the programme was high, with all but one respondent indicating they were either very satisfied or satisfied with the quality of their experience (**Figure 9**). This feedback affirms the value of the training programme in shaping the personal and professional development of scholars.



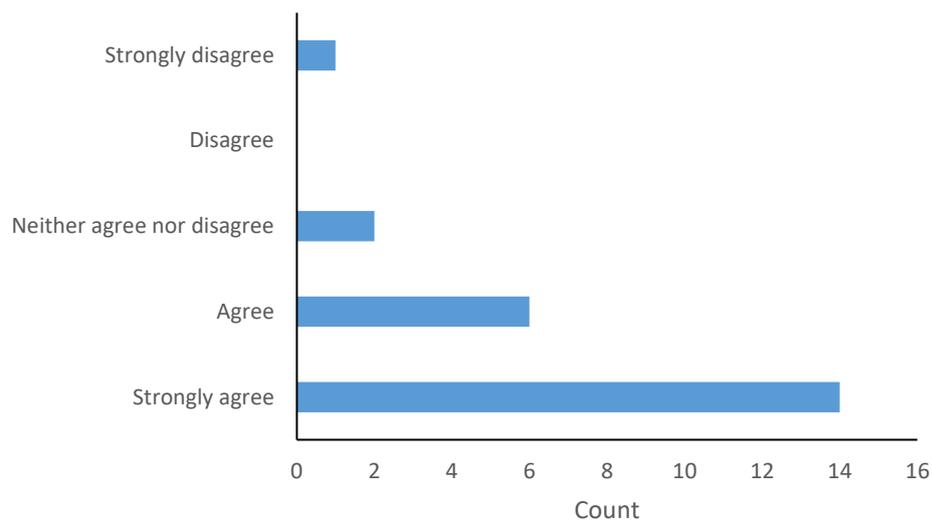
**Figure 4** Response to Likert scale question “*During or because of my PhD project, I was able to make new contacts and/or strengthen my existing networks*”



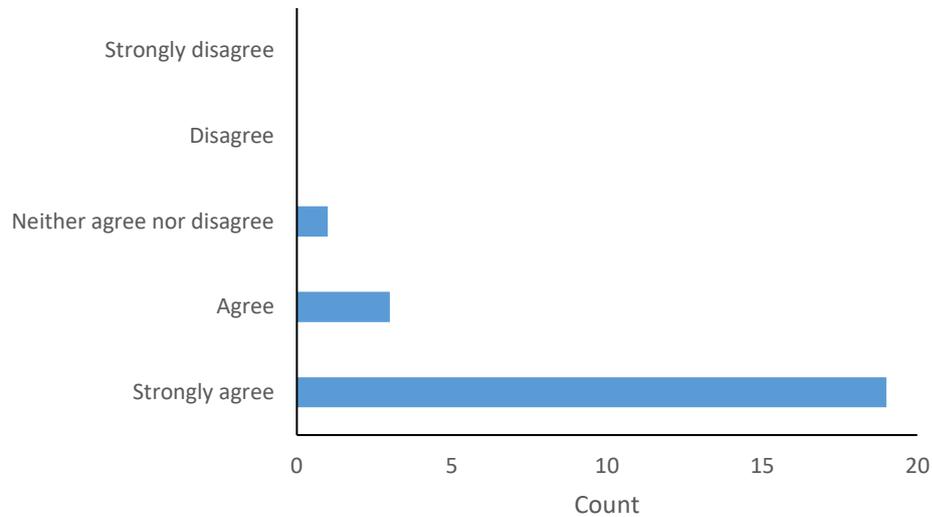
**Figure 5** Responses to multiple choice question “The HNSP training programme contributed to my knowledge, skills, and personal development in the following areas”



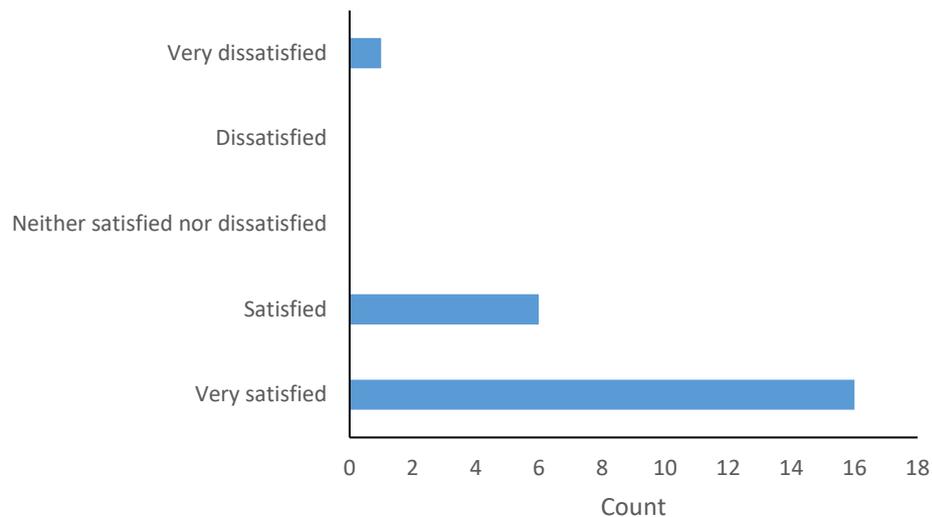
**Figure 6** Responses to multiple choice question “My overall experience with the HNSP helped me to prepare for the following:”.



**Figure 7** Responses to Likert scale question “The HNSP helped me prepare for my current/future career path.”.



**Figure 8** Responses to Likert scale question “During my studies, I felt supported by the HNSP team”.

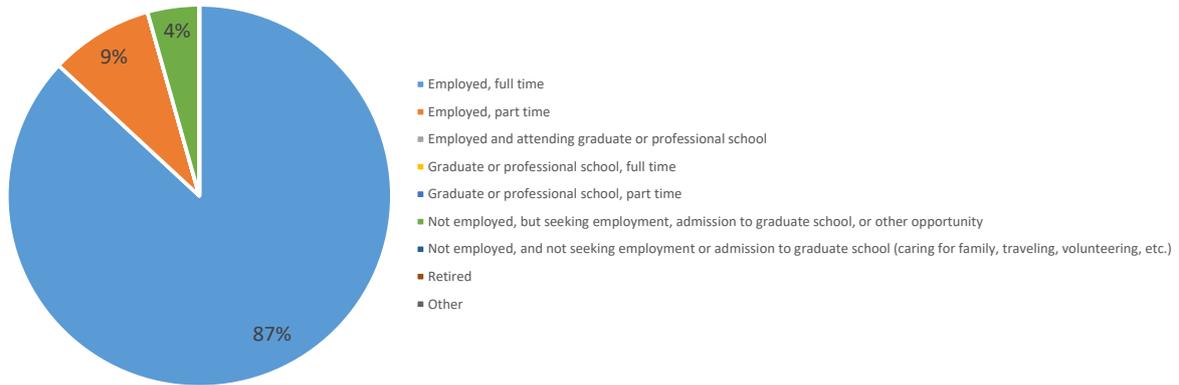


**Figure 9** Responses to Likert scale question “How satisfied were you with the quality of your HNSP experience?”

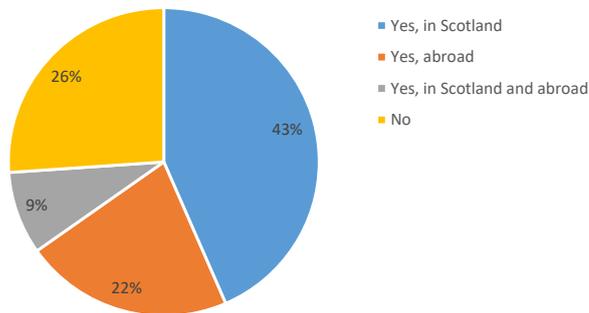
## Post Graduation Questions

The survey revealed strong post-graduation outcomes for HNSP alumni, with 87% currently employed (**Figure 10**). Only one recent graduate reported actively seeking employment at the time of the survey. Among employed respondents, approximately 85% have pursued or continue to work in the water sector both within Scotland and internationally (**Figure 11**). Notably, close to 60% of these individuals are employed in roles directly related to their PhD research (**Figure 12**).

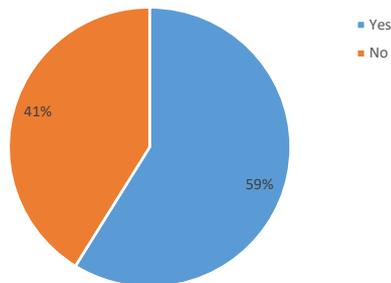
These findings underscore the value of the HNISP model and its annual training programme, which support scholars in developing versatile skills applicable within and beyond their areas of study. The programme effectively enhances employability across diverse sectors and fosters a pipeline of skilled professionals contributing to both Scotland's workforce and the global water sector.



**Figure 10** Current primary activity of alumni showing most are currently employed, with one actively seeking employment.



**Figure 11** The majority of currently employed alumni continue or have continued to work in the water sector after completing their studies.



**Figure 12** Of Alumni who answered yes in Scotland and/or abroad in Figure 8, most continue to work in the same subject area as their PhD.

## Additional Comments

The survey's final section sought additional alumni perspectives on what they valued most about their HNSP experience and areas for improvement. Overall, the feedback was positive, highlighting the programme as well-established and supportive. However, respondents provided constructive suggestions for enhancing the programme. Key recommendations included creating more opportunities for ongoing alumni engagement. While most alumni reported feeling connected to the HNSP, a few expressed feeling only minimal connection but indicated an interest in future involvement. These insights suggest that expanding alumni activities could strengthen long-term relationships and foster a more engaged community.

### **Open Text: From the perspectives you've gained since completing your PhD, what do you especially value about your experience as a HNSP?**

The responses to this question can be grouped into the following common themes:

- **Cohort Building:** The Scotland-wide cohort activities fostered a sense of community among HNSP scholars.
- **Funding Advantages:** The PhD scholarship provided generous funding, including four years of support and a substantial research budget, which alleviated financial concerns.
- **Flexibility in Research:** The ability to craft personalised PhD proposals allowed for a blend of supervisory strengths and personal interests, contributing to successful academic outcomes.
- **Networking Opportunities:** Mentoring and participation in training events and others like the Hydro Nation Forum facilitated direct interactions with policymakers and expanded professional networks.
- **Supportive Community:** The HNSP was characterised as a family-like community, promoting collaboration and shared goals among peers in water resource research.
- **Interdisciplinary Engagement:** The programme encouraged interdisciplinary collaboration and frequent meetings, enhancing learning and idea development.
- **Transferable Skills:** Scholars recognised the importance of transferable skills and networking, which continued to benefit their careers post-PhD.
- **Access to Resources:** The programme provided access to government and research institutions, treating participants as future researchers rather than just students.
- **Cultural Exposure:** Organised visits across Scotland (e.g. via the Summer School) enriched understanding of local culture and the water sector.
- **Comprehensive Education:** The structured programme covered various aspects of the water industry, enhancing participants' appreciation and career prospects.
- **Inspirational Environment:** Regular interactions with peers and mentors at HNSP events inspired participants and reinforced their commitment to their research.
- **Policy Influence:** The programme emphasised the importance of effective science communication in influencing policy decisions, shaping participants' career aspirations towards policymaking.

**Open Text: Provide additional comments or thoughts on how the HNSP can improve the quality of scholars' experience (training, networking, stakeholder engagement, support post-graduation).**

Alumni responses affirmed the high value of the HNSP PhD scholarship programme, alongside suggestions for improvements. A notable recommendation was reintroducing the option for applicants to write their proposals and conduct field research internationally, as done in earlier cohorts, although from HNSP a more feasible approach would be to allow co-construction of projects. Training feedback was largely positive, with summer schools and the Residential Course praised for fostering learning and networking. However, some training sessions were perceived as repetitive, while guest speaker sessions were highly valued.

Key Training Suggestions:

- Introduce a targeted 'employability' task sheet for skills development.
- Include media training for knowledge exchange (e.g. podcasts, video features).
- Enhance quantitative data and statistical analysis training.
- Implement an impact plan creation in the first year to improve project design and engagement.
- Offer clearer guidance on secondment opportunities; only ~35% of respondents undertook such placements, which, when done, greatly benefited their work.
- Stakeholder Engagement & Mentorship: Feedback on stakeholder support varied; while some mentors were highly supportive, others fell short, particularly when staff changes disrupted data access and connections. Expanding opportunities for involving external supervisors and placements could help to address this gap.

In terms of Alumni engagement, most alumni felt a connection to the HNSP, even those from earlier cohorts. To strengthen this engagement, all respondents, including those feeling less connected, showed interest in participating more actively. Suggested activities included:

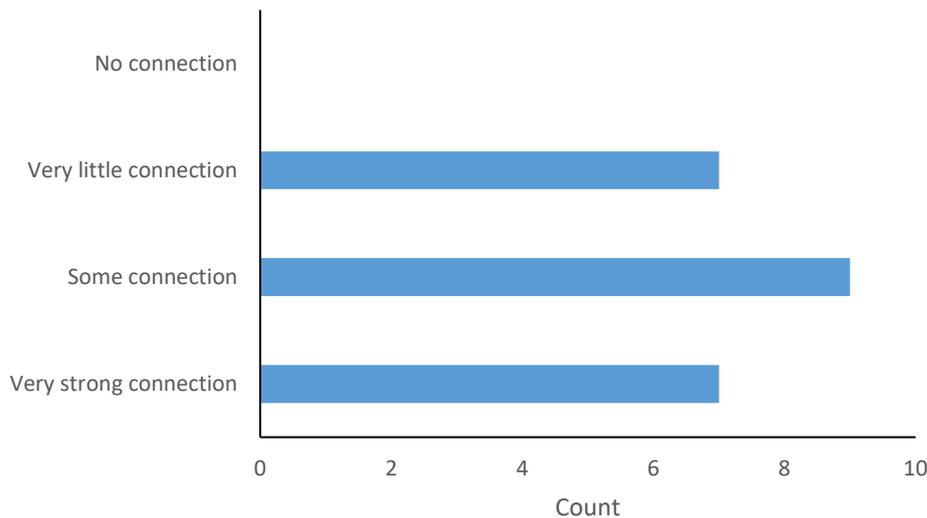
- Mentoring and networking events.
- Guest speaking opportunities at welcome events.
- Meetings with new scholars at nearby universities.
- Alumni reunions (including virtual events).
- Regular newsletters.

These insights suggest that while the HNSP is already perceived as supportive and well-organised, enhancing specific training opportunities, supporting more industry placements, and fostering ongoing alumni engagement would further enrich the programme.

**Open Text: If you would like to elaborate on any of your responses on this survey or share other information about any aspect of your experience with the HNSP, please use the space below.**

Respondents expressed gratitude to the HNSP for their support in advancing their career. They mention that, while not a requirement of the scholarship, they are currently engaged in water-

focused work in Scotland, which aligns with the funders' expectations. The scholars also expressed hope for future funding cycles for the programme to continue and offered to provide more information if needed in support of this.



**Figure 13** Responses to Likert scale question “Q: How connected do you feel to the HNSP after graduation?”

## Conclusions and Next Steps

This report details the first Alumni Survey conducted by HNSP, aiming to evaluate the programme’s impact on alumni careers and gauge the effectiveness of its unique model. The survey serves as a tool to continuously track alumni impact and programme efficacy, providing valuable insights into the experiences and career preparedness of scholars.

In brief, the survey results were overwhelmingly positive, with high response rates and alumni expressing commitment to support the programme. This demonstrates strong, lasting connections fostered by HNSP and highlights the programme's value in establishing a supportive community even after graduation. Notably, this survey provides a significant step in developing an engaged alumni network, work which was initiated in Autumn 2022.

Alumni are recognised as a strategic asset for HNSP, serving both as a means to capture programme impact and as a support system for its continuity. Specifically:

- **Career Insights:** Alumni share guidance on career paths influenced by the scholarship, assisting current scholars with planning.
- **Research Continuity:** They provide advice on extending research efforts beyond the PhD.
- **Programme Feedback:** Constructive insights from alumni inform continuous programme improvement.
- **Stakeholder Engagement:** Alumni offer advice on building beneficial relationships with stakeholders.

- Ambassadorship: Alumni contribute to HNSP's brand recognition, enhancing its profile domestically and internationally.

Alumni feedback was viewed as constructive and will help guide programme refinements in future years. No negative sentiments were expressed, underscoring alumni support for HNSP's ongoing improvement.

Next steps of the impact study include a broader stakeholder survey planned, initially trialled with two case studies. The combined insights from alumni and stakeholders will inform a comprehensive impact report, expected for publication in April/May 2025, to further communicate HNSP's influence and gather additional perspectives.

This report reaffirms the HNSP's strengths and highlights alumni as crucial advocates and mentors, underscoring the programme's value in shaping meaningful career pathways and fostering a globally recognized community.

## Appendix A Alumni Survey 2024

Beginning in 2023, the Hydro Nation Scholars Programme (HNSP) has conducted a review and update of its process and policies, including an evaluation of the legacy and impact of the programme. As part of this process, we are launching the current Alumni survey to gather your feedback about the quality and impact of your experiences with the HNSP.

The results of this survey will help us improve HNSP processes and training programme and will be used for reporting to our funders and steering group members.

The survey should take around 30 minutes to complete. You can save your answers and return to it at another time. Thank you for your time. We appreciate your honest feedback.

### Privacy/Data Protection

The HNSP operates in accordance with the James Hutton Group's Data Protection Policy, tailored to comply with existing UK data protection legislation including the Data Protection Act 2018 (DPA) and the UK General Data Protection Regulation (GDPR).

The present survey collects personal data for which the James Hutton Institute ("Hutton", "we", "us", "our") is the data controller as it primarily manages and co-ordinates HNIC's day-to-day operations and programmes including HNSP. Our lawful basis for processing your personal data is our legitimate interest to collect and use your personal data for the purposes outlined above.

Your responses will only be accessed by a limited number of HNIC staff on a strictly need-to-know basis in order to analyse survey results and produce reports, and they will be kept confidential at all times.

Your data will be retained for 5 years after the survey and deleted afterwards.

You can find more information about how we use personal data in our website privacy notice, at <https://www.hutton.ac.uk/privacy-notice>.

For more information on your data protection rights, if you wish to exercise any right such as request a copy of your data, for any data protection queries you may have or if you wish to make a complaint, please contact our Data Protection Officer, [dpo@hutton.ac.uk](mailto:dpo@hutton.ac.uk).

You also have a right to complain to the Information Commissioner's Office (ICO) about the way in which we process your personal data. You can make a complaint on [the ICO's website](#).

\* Required

**I acknowledge that I have read and considered the above information and agree to participate in the survey. \***

Yes

No

## Personal Information

Name \*

Nationality \*

Current location (e.g. town/country of residence) \*

Email address \*

LinkedIn

## PhD Related Questions

Cohort (Year) \*

Host University \*

Title of Project \*

Year of Completion \*

HNSP Mentor Organisation \*

Please select below the stakeholders involved in your project \*

- HNSP Steering Group members: Scottish Government, Scottish Environment Protection Agency (SEPA), Scottish Water, NatureScot (previously Scottish Natural Heritage), Water Industry Commission for Scotland (WICS)
- Wider stakeholder organisation
- Research team (Higher Education Institute/Research Institute/consultancy)
- None
- Other

Briefly comment if/how your stakeholder engagement contributed or benefitted to your PhD research. If no contribution, please write None. \*

My PhD project had the following impact (select all that apply) \*

## Hydro Nation Scholars Programme

- General awareness: Contributing to the understanding of policy issues, reframing debates (i.e. changing ways of thinking)
- Public health: Influencing the delivery (e.g. actions on-the-ground) targeting public health
- Practice / capacity building: Development of technical and personal skills, including methods
- Natural environment: Influencing the delivery (e.g. actions on-the-ground) targeting the natural environment
- Government policy: On the strategic level objectives of funders and decision makers
- Institutional policy: Influencing the development of policy, practice or service provision, shaping legislation
- Other

If you would like to elaborate on the specific impact of your project, please use the space below.

During or because of my PhD project, I was able to make new contacts and/or strengthen my existing networks \*

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

During my course of studies, I felt supported by the HNPS team \*

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The HNPS training programme contributed to my knowledge, skills, and personal development in the following areas (select all that apply): \*



- Careful reading: Comprehension and analysis of written texts.
- Critical thinking: Examination of ideas, evidence, and assumptions before accepting or formulating a conclusion.
- Creative thinking: Developing or combining ideas, images, or expertise in innovative ways.
- Information literacy: Locating, evaluating, and using information effectively and responsibly for a particular purpose.
- Quantitative literacy: Seeking, understanding, and using quantitative information appropriately to solve problems or make arguments.
- Effective writing: Conveying accurate and compelling content in clear, expressive, and professionally appropriate prose.
- Effective speaking: Conveying accurate and compelling content in clear, expressive, and professionally appropriate oral presentations.
- Teamwork: Contributing to a team, facilitating the work of team members, and fostering a constructive team climate.
- Problem solving: Designing, evaluating, and implementing a strategy to answer questions or achieve a goal.
- Civic engagement: Promoting the quality of life in a community, through political, nonpolitical, and professional activities.
- Intercultural knowledge and competence: Information, skills, and commitments that support effective and appropriate interactions in a variety of cultural and professional contexts.
- Ethical reasoning: Recognising ethical issues, examining different ethical perspectives, and considering the ramifications of alternative actions.
- Integrative thinking: The habit of connecting ideas and experiences, and the ability to transfer learning to novel situations.
- All of the above
- None of the above

My overall experience with the HNSP helped me to prepare for the following (select all that apply): \*

- Acquiring a lasting working knowledge of key facts and concepts in your field of study
- Acquiring job or work-related skills
- Getting the opportunity you wanted (employment or graduate school) soon after graduation
- Being successful in your current career
- Responding to new career opportunities
- Assuming leadership responsibilities
- Contributing to your community
- Deepening your commitment to personal development
- Continued learning outside of your field of study
- All of the above
- None of the above

Please indicate any placements, internships, or secondments you undertook during your course of studies. If none, please write "none". \*

### Post Graduation Questions

How satisfied were you with the quality of your HNSP experience? \*

Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How connected do you feel to the HNSP after graduation? \*

Very strong connection	Some connection	Very little connection	No connection
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The HNSP helped me prepare for my current/future career path. \*

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate which of the following describes your current PRIMARY activity \*

- Employed, full time
- Employed, part time
- Employed and attending graduate or professional school
- Graduate or professional school, full time
- Graduate or professional school, part time
- Not employed, but seeking employment, admission to graduate school, or other opportunity
- Not employed, and not seeking employment or admission to graduate school (caring for family, traveling, volunteering, etc.)
- Retired
- Other

Have you or do you continue to work in the water sector? \*

- Yes, in Scotland
- Yes, abroad
- Yes, in Scotland and abroad
- No

If yes, do you continue to work in the same subject area as your PhD? \*

- Yes
- No

If yes, is your current work related to your PhD work? Briefly explain. \*

Current institution and role \*

#### Additional Comments (Optional)

From the perspectives you've gained since completing your PhD, what do you especially value about your experience as a HNISP?

Provide additional comments or thoughts on how the HNISP can improve the quality of scholars' experience (training, networking, stakeholder engagement, support postgraduation).

Would you be interested in engaging in Alumni activities? If so, please provide examples of activities of possible interest (e.g. in-person or virtual reunions, newsletters, mentoring current scholars, guest speaking at welcome event, networking events, etc.)

If you would like to elaborate on any of your responses on this survey or share other information about any aspect of your experience with the HNISP, please use the space below.

**Last Question:** Capturing impact is important to justify the future funding and worth of the programme. Thus, the HNISP will be conducting further work to highlight impact stories and case studies to further understand how the scholars' work and stakeholder engagement has influenced/changed/benefitted the water sector in Scotland and abroad? Can the HNISP team contact you for more information or support with this work? \*

- Yes
- No

## Appendix B Sample Stakeholder Survey 2024 (on Trial phase)

Beginning in 2023, the Hydro Nation Scholars Programme (HNSP) has conducted a review and update of its process and policies, including an evaluation of the legacy and impact of the programme. As part of this process, we are launching the current survey to gather your feedback about the quality and impact of your experiences as a stakeholder to the HNSP project conducted by **Kerr Adams** entitled '**The Scottish Water Landscape and Its Resilience to Change: An Assessment to Support Future Policy**'

The results of this survey will help us to further understand the flow of information between the project leads and stakeholders (e.g. is it getting to the right people at the right time and how it is being used), and the benefits that have resulted from this interaction for both sides (e.g. if/how stakeholder involvement has benefitted the project itself, and if/how the project outputs have made a difference in policy and practice).

Please note that while we may ask for some personal information, this is for purposes of building case studies and impact stories, but we will not share this with anyone outside the organisation without your consent (see **Privacy/Data Protection** below).

### Privacy/Data Protection

The HNSP operates in accordance with the James Hutton Group's Data Protection Policy, tailored to comply with existing UK data protection legislation including the Data Protection Act 2018 (DPA) and the UK General Data Protection Regulation (GDPR).

The present survey collects personal data for which the James Hutton Institute ("Hutton", "we", "us", "our") is the data controller as it primarily manages and co-ordinates HNIC's day-to-day operations and programmes including HNSP. Our lawful basis for processing your personal data is our legitimate interest to collect and use your personal data for the purposes outlined above.

Your responses will only be accessed by a limited number of HNIC staff on a strictly need-to-know basis in order to analyse survey results and produce reports, and they will be kept confidential at all times.

Your data will be retained for 5 years after the survey and deleted afterwards.

You can find more information about how we use personal data in our website privacy notice, at <https://www.hutton.ac.uk/privacy-notice>.

For more information on your data protection rights, if you wish to exercise any right such as request a copy of your data, for any data protection queries you may have or if you wish to make a complaint, please contact our Data Protection Officer, [dpo@hutton.ac.uk](mailto:dpo@hutton.ac.uk).

You also have a right to complain to the Information Commissioner's Office (ICO) about the way in which we process your personal data. You can make a complaint on [the ICO's website](#).

\* Required

**I acknowledge that I have read and considered the above information and agree to participate in the survey. \***

Yes

No

## Personal Information

Name \*

Current role and organisation (Optional)

Which category of organisation did you represent at the time of your involvement with the HNSP project? \*

- Scottish Government and delivery partners (SEPA, Scottish Water, NatureScot, WICS, DWQR)
- Wider stakeholders and knowledge brokers (including centres of expertise)
- Project research team (supervisors)
- Other research (Higher Education/Research Institute/consultancy)

Role and organisation at the time of involvement with the HNSP project. If same as current (Question 2), please write "same". \*

How did you interact with the HNSP project at the time of involvement? (select all that apply) \*

- HNSP Steering Group Member
- Mentor/Advisor
- PhD supervisor
- Higher Education Institute
- Research Institute
- Consultancy
- Industry partner
- None
- Other

**Specific Project Questions:** The questions in this section relate to the HNSP project undertaken by **Kerr Adams: The Scottish Water Landscape and Its Resilience to Change: An Assessment to Support Future Policy (2018 - 2023)**

Please briefly describe your role in this project. \*

The project in question was in response to the following HNSP topic:

## Hydro Nation Scholars Programme

Topic 5: Assessing the Future Water Landscape of Scotland Issue: The water “landscape” in Scotland will be affected by several different drivers including climate change, urbanisation, commercial demands, changes in agricultural production and land use. Understanding future scenarios of change is an important pre-requisite for the development of national strategy, planning and policy. Ask: Proposals are sought that explore future demands and pressures on the water environment, including linking biophysical, social, and economic perspectives. Developing and exploring scenarios of change and subsequent impacts will be key. Based on your knowledge and engagement, do you consider the project addressed the brief? \*

Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Unsure
<input type="radio"/>					

Can you elaborate on your answer to the previous question?

Which of the following type(s) of impact do you perceive the specific project to have had (select all that apply): \*

- Contributing evidence to support decision making across the water sector
- General awareness of the project field (contributing to policy issues, reframing debates i.e. changing ways of thinking)
- Natural environment (influencing the delivery (e.g. providing the evidence/guidance to steer change in policy/practice) targeting the natural environment)
- Public health (Influencing the delivery (e.g actions-on-the-ground) targeting public health)
- Practice/capacity building (development of technical and personal skills)
- Government policy (On the strategic level objectives of funders and decision makers)
- Institutional policy (Influencing the development of policy, practice or service provision, shaping legislation)
- Improving/ changing working practice (within and industry organisation)
- Reputational (for you or you place of work)
- Strengthening ties (e.g. between academia and industry, academia and government)
- Other (Any impacts that are not captured in the above categories)
- Unsure
- None of the above

Can you elaborate on your answer to the previous question regarding the type(s) of impact identified?

What do you perceive the timescale of the impact of this project to be? \*

- During the project
- Upon completion of the project
- Beyond the project
- Unsure
- Other

Can you elaborate on the timescale selected above?

Has this project, or your involvement in this project, led to any of the following benefits in your organisation (select all that apply): \*

- Processes
- Tools
- Habits
- Knowledge
- Other
- Unsure
- None

Can you elaborate on your answer to the previous question?

**Programme Questions:** The questions in this section relate to the quality of your experience with the HNSP programme and perceived impact in general outwith the individual project.

The Hydro Nation Scholars Programme (HNSP) was established as a unique learning environment to promote research into contemporary water-related issues and to contribute to the delivery of Scotland's Hydro Nation ambition. By enabling collaborative research with the water sector, the programme's goal was to cultivate a network of water experts delivering high quality policy-relevant research with a global reach, with Scotland at its core. To what degree do you agree with the following statement: The HNSP has achieved the goal as outlined above. \*

Strongly agree

Agree

Neutral

Disagree

Strongly disagree

Unsure



Can you elaborate on your response to the previous question?

The HNSP was established to support the Hydro Nation Strategy and its aims. In your opinion has the HNSP helped in achieving the 4 following aims? \*

	Yes	No	Unsure
Developing understanding of how and where best to develop the value of Scotland's water resources.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enhancing Scottish capacity in areas in which Scotland has research excellence.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing new research and insights into water resources in Scotland.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Raising Scotland's international profile in water research and/or expertise.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Can you elaborate on how you feel the HNSP has helped achieve the aims above or other aims beyond these identified objectives?

What type(s) of impact do you perceive the programme to have had, select all that apply \*

- Capacity building across the water industry (including the development of workforce talent (inspiring, educating, and mentoring future world water leaders))
- Contributing knowledge and evidence to support decision making across the water sector
- Contributing to institutional and government policy (Influencing the development of policy, practice or service provision, shaping legislation)
- Contributing to Scotland's reputation as a leader in water sector development and research
- Research development via access to funding – (development of the wider field of water research/general R&D in Scotland)
- Other (Any impacts are not captured in the above categories)
- Not enough knowledge of the programme to respond

Can you elaborate on, or provide examples of, the impact(s) you have identified in the previous question?

Has your involvement in the HNISP had an impact on your career and are there any learnings from your involvement in the HNISP that you use in your working life? If none, please write 'None'. \*

Would you recommend that others get involved in the HNISP? \*

- Yes
- No
- Unsure

Can you elaborate on the answer to the previous question?

If you have any final remarks relating to the impact of the HNISP or the identified project, or how impact could be increased/improved, please use the space below.

We may look to deepen our understanding of the HNISP through some short follow up questions. Would you be happy to be contacted by the HNISP coordinators (Hydro Nation International Centre, HNIC) for further information on your responses? \*

- Yes
- No

If yes to the previous question, please provide your preferred email address for this.