

Natural Hazards Detection System – Phase 1 Proof-of- Concept



Final report guidance

August 2025

<https://www.chiefscientist.nsw.gov.au/nhds>



NHDS Phase 1 Proof-of-Concept – Report Guidance

This guidance outlines the minimum reporting requirements for Phase 1 recipients. You are encouraged to include any additional information that is relevant to your PoC and the NHDS Challenge(s).

The Final PoC Report will:

- Form a major part of your NHDS Phase 2 Pilot application, and
- Fulfil reporting obligations under the Deed of Agreement (note: separate guidance on financial acquittals will be provided).

The report must:

- Describe the Proof-of-Concept undertaken, including data collected and outcomes achieved.
- Explain if and how the solution could be further developed or scaled to meet NHDS Challenge requirements for Phase 2 Pilots.
- Be no longer than 25 pages (A4, 11-point font).

Please note: The Phase 1 Final Report may cover grant activities undertaken up until the submission of your Phase 2 application, even if these occur beyond the 29 August 2025 end date specified in your funding deed.

Executive Summary

The Executive Summary should provide a clear, high-level overview of the full report and must not exceed two pages. It should include:

- Background and context – Outline the challenge(s) addressed and your solution.
- Project delivery – Summarise key activities, milestones, issues and achievements.
- Challenge requirements – Describe how the solution met both mandatory and optional requirements,
- Data connectivity – Outline the solution's ability to connect to and transmit data (acknowledging any limitations or dependencies).
- Outcomes – Present the main results and impacts of the project.
- Lessons learned and scalability – Share key insights and the potential to scale the solution for Phase 2.
- Conclusions – Provide a concise wrap-up of the solution's value and future potential

NHDS Challenge and Solution

Describe the specific elements of the NHDS Challenge(s) addressed during the PoC.

Project Delivery

The report should:

- State the objectives of the PoC trial and how you planned to demonstrate your solutions viability to meet the challenge/s objective.
- Describe trial delivery, including activities and milestones (as set out in the Deed of Agreement).
- Explain how identified risks, delays, and unforeseen issues (e.g. regulatory delays, vandalism) were managed.
- Outline the budget and provide justification for any variations during the PoC trial.

Challenge Requirements

Summarise the PoC results, highlighting how the solution met or exceeded the requirements of the specified Challenge(s) including the Mandatory and Optional requirements.

Data Connectivity Requirements

We note that delays to the procurement of the NHDS data platform have not allowed recipients to connect their technology to the data platform in Phase 1, so far. However, all solutions would have generated data during the PoC.

The report should:

- Note how your solution is able to connect to delivery data to an external API.
- Provide evidence and snapshots of the data collected during your PoC, note performance and insights regarding the solutions ability to generate and transmit data during this period.
- Describe any activities during PoC to test the solution's ability to generate and transmit data.
- Should the NHDS Data Platform be ready prior to the close of Phase 2 applications include any progress towards connection to the NHDS API. Alternatively, please provide data generated into the API template provided including details of the devices and locations.

Outcomes

The report should:

- Describe the outcomes achieved against the objectives of the PoC.
- Describe the metrics used to determine the outcomes and assess their validity and reliability.
- Based on the outcomes of the PoC, assess the extent to which the solution is likely to solve the challenge(s) at an LGA scale, such as:
 - The technical, scalability and commercial feasibility of the solution.
 - Analyse the potential financial impact of the proposed solution (e.g. estimated costs, benefits to natural hazard mitigation, response and management, related savings etc).
 - Analyse the compatibility of the solution with any regulatory requirements and existing industry standards (eg Flood Warning Infrastructure Standard, Australian Standards etc).
 - Identify any technical, commercial or financial issues with the solution and its ability to resolve the challenge

Lessons Learned and Scaling

The report should present conclusions from the PoC and make recommendations for how the solution implementation could be improved in a larger scale pilot (e.g. the Phase 2 Pilot if awarded). Recommendations should address how the Pilot would:

- Meet all mandatory requirements of the solution.
- Demonstrate and assess the impact of the solution.
- Address issues identified during the PoC this can include, technical and non-technical or business management issues such as stakeholder and asset-owner management.

Questions

If you have any further questions about this guidance, please contact the NHDS team:
nhds@chiefscientist.nsw.gov.au.
