Evaluation of the Resilient Homes Fund

Final Report

Paula Jarzabkowski[1] Tyler Riordan[1] Rosie Gallagher[1] Wendy LDQ Pham[1] Benjamin Avanzi[2] Matthew Mason[3] Alicia Rambaldi[4] Renee Zahnow[5] Laurel Johnson[6] Stephanie Wyeth[7] Ruyue Deng[4] Neil Taylor[1] and Yagebu Xie[2]

1. Business School, University of Queensland, Queensland,
2. Department of Economics, University of Melbourne, Victoria,
3. School of Civil Engineering, University of Queensland, Queensland,
4. School of Economics, University of Queensland, Queensland,
5. School of Social Science, University of Queensland, Queensland,
6. Institute for Social Science Research, University of Queensland, Queensland,
7. School of Architecture, Design and Planning, University of Queensland, Queensland.

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We acknowledge the Traditional Custodians across all the lands on which we live and work, and we pay our respects to Elders both past, present and emerging. We recognise that these lands and waters have always been places of teaching, research and learning.

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Cover: Brisbane suburbs flooding by On-Air, AdobeStock

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We wish to thank our Research Partners: Natural Hazards Research Australia and the Queensland Reconstruction Authority.

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We also acknowledge academic support from our UQ colleague Dr Katie Meissner and project support from Dr Dorine von Briel.

Finally, while an interdisciplinary study of this scale and scope involves a large research team, all of whom are noted as co-authors on the cover of this report, different aspects of the analysis and findings can be attributed to different team members. For convenience in contacting the most relevant team member on any section of interest to readers, we acknowledge the work of:

- Professor Benjamin Avanzi, Associate Professor Matthew Mason, and Yagebu Xie in all structural analyses in Section 4, including Figures 4.2-4.7, 4.9, and Appendices C to E, including Figures C1 to E3.
- Professor Alicia Rambaldi and April Deng in the multinomial choice modelling of property journeys, displayed in Appendix F.
- Associate Professor Renee Zahnow in the design of the two homeowner surveys for Voluntary Home Buy-Back and Home Raising/Resilient Retrofit, and leadership in analysis of the survey data (refer to Appendix G), which are reported at multiple points within this report.
- All other sections of the report, particularly with respect to the underlying evaluative framework (Section 2 and Figure 2.1), any qualitative analyses (refer to Appendix B), and the development of the heuristic frameworks, Figures 4.1, 4.8, 4.11 and 5.1, can be referred to the core research team of Professor Paula Jarzabkowski, Dr Tyler Riordan, and Dr Rosie Gallagher.

While these acknowledgements of separate and varied efforts are due, we also note that this report is a joint effort of all the named co-authors, including our research assistants, which we all endorse.

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Acronyms and Abbreviations

The following acronyms and abbreviations are used throughout this report:

ABS	Australian Bureau of Statistics
ACE	Australian Centre for Evaluation
AEP	Annual Exceedance Probability
AFL	Assessed Flood Level
ARPC	Australian Reinsurance Pool Corporation
CALD	Culturally and Linguistically Diverse
CBD	Central Business District
CPI	Consumer Price Index
CRM	Customer Relationship Management
DHPW	Department of Housing and Public Works
DRFA	Disaster Recovery Funding Arrangements
ESL	English as a Second Language
FAQ	Frequently Asked Question
ICA	Insurance Council of Australia
ICE	Industry and Community Education
ICT	Information and Communication Technology
IDM	Insurance Delivery Model
LGA	Local Government Area
NEMA	National Emergency Management Agency of Australia
NGO	Non-Governmental Organisations
The Centre	Natural Hazards Research Australia
OECD	Organisation for Economic Co-operation and Development
PLIDA	Person-Level-Integrated-Data-Asset
QBCC	Queensland Building and Construction Commission
QFAO	Queensland Flood Assessment Overlay
QRA	Queensland Reconstruction Authority
QRIDA	Queensland Rural and Industry Development Authority
RHF	Resilient Homes Fund
RoI	Registration of Interest
the Portals	Property Level Flood Information Portals

UQ	University of Queensland
UoM	University of Melbourne
VFM	Value for Money
VHBB	Voluntary Home Buy-Back
WP	Work Package

Note: Departmental names and acronyms are current as of January 2026.

Relevant terms

The following terms are used throughout this report:

1% AEP	The measure of likelihood of flood frequency expressed as the number of occurrences of a specified event in a given time. Typically measured in terms of Annual Exceedance Probability (AEP). For example, a flood with the frequency of 1% (1 in 100) AEP has a 1% chance of occurring in any given year.[1]
2021-22 Southern Queensland Floods[2]	The term includes four significant weather events that occurred during the 2021-22 season: • Central, Southern and Western Queensland Rainfall and Flooding, 10 November – 3 December 2021 • Ex-Tropical Cyclone Seth, 29 December 2021 – 10 January 2022 • South-East Queensland Rainfall and Flooding, 22 February – 5 April 2022 • Southern Queensland Flooding, 6 – 20 May 2022.
Evaluative Framework	This evaluation developed a purpose-built evaluative framework to assess the Resilient Homes Fund (RHF) policy and to inform future resilient housing policy considerations. The framework was originally developed and published in the report *Resilient Housing Policies: A Framework for Evaluation,*[3] which synthesised evidence from comparable national and international disaster-related housing resilience programs.
Home Raising and Resilient Retrofit	Collectively refers to all interventions delivered by the Department of Housing and Public Works including the Expanded Criteria $150,000 capped and Expanded Criteria $50,000 capped interventions (unless specified otherwise). Similarly, Home Raising refers to the primary intervention and two Expanded Criteria interventions.
Level 3 flood study	The Queensland Flood Mapping Program provides flood mapping information that assists in mitigating, preparing, responding and recovering from flood disaster. Fit-for-purpose maps recognise not all communities require the same level of mapping to ascertain their flood risk. The three levels of fit-for-purpose flood mapping advocated are: • Level 1. Consistent state-wide mapping known as the Queensland Floodplain Assessment Overlay; • Level 2. Town-based mapping that focuses on lower growth towns; and • Level 3. Comprehensive mapping required for densely populated, higher growth centres and more complicated investigation areas such as coastal communities.[4]
SA1 and SA2	Refer to the Australian Bureau of Statistics (ABS) Statistical Areas (SA) levels. Statistical Areas Level 1 (SA1s) are geographic areas built from whole Mesh Blocks. Whole SA1s aggregate to form Statistical Areas Level 2 (SA2s). SA1s are designed to maximise the geographic detail available for Census of Population and Housing data.[5]
Work Package 1 (WP1)	Refers to the first output from this evaluation, which reviewed seven selected programs from which to draw comparative themes that can be applied to evaluating the RHF. The purpose-built evaluative framework was published in the report *Resilient Housing Policies: A Framework for Evaluation.*[6]

Executive summary

This report presents the findings of an independent evaluation of the Queensland Resilient Homes Fund (RHF), undertaken by the University of Queensland and University of Melbourne for the Queensland Reconstruction Authority and Natural Hazards Research Australia. The RHF was a $741 million program, jointly funded (50:50) by the Queensland and Australian Governments under Category D of the Disaster Recovery Funding Arrangements (DRFA). The program consisted of three key voluntary flood resilient interventions for homeowners, including Voluntary Home Buy-Back (VHBB), Home Raising and Resilient Retrofit. In total, the RHF attracted 6,558 homeowner Registrations of Interest, with 685 VHBB contracts settled, and 341 Home Raising and 805 Resilient Retrofit grants completed.[i]

The evaluation assesses the extent to which the RHF, implemented in a post-disaster recovery context, supported intended recovery and resilience objectives through its design and delivery. The report adopts a policy-oriented perspective, recognising that while programs conclude, their lessons for policy may inform future recovery and resilience responses. Accordingly, the evaluation examines both program performance and the policy lessons arising from the RHF. Limitations of the review are listed in Section 2.4. While the RHF was designed primarily to improve the physical resilience of housing, this evaluation also considers broader financial, social and emotional resilience effects where they are relevant to program delivery and participation. This includes how program design and delivery shaped homeowners' capacity to engage with the program, navigate complex decisions and sustain progress over time. The overall conclusions of the evaluation are that the RHF was an effective recovery program that delivered valued resilience outcomes to many homeowners.

The report is structured as follows:

Section 1 provides the contextual background to the RHF. It outlines the 2021-22 Southern Queensland Flood events that shaped the program and describes the RHF's objectives, interventions (Voluntary Home Buy-Back, Home Raising, Resilient Retrofit) and supportive projects (Property Level Flood Information Portals, Industry and Community Education), governance arrangements for dual-agency delivery between Queensland Reconstruction Authority and Department of Housing and Public Works, and delivery timelines.

Section 2 sets out the evaluative framework, evaluative criteria, methodology, data sources and limitations, aligned with Queensland Government, Commonwealth, Organisation for Economic Co-operation and Development, and Australian Centre for Evaluation guidance.

Section 3 evaluates the establishment and early delivery of the RHF as a starting-anew program. The evaluation finds that the RHF was effectively established as a post-disaster recovery program, in the absence of pre-existing data, delivery systems, or templates. New eligibility, assessment and delivery processes were developed quickly and matured over time, improving efficiency and decision consistency. Early challenges associated with dual-agency delivery were progressively addressed through shared data platforms and coordination mechanisms. Delivery became more appropriate as the program adapted to recovery conditions, shifting from a predominantly procedural model towards a more homeowner-centred approach, including case management and one-to-one technical support. These adaptations improved program accessibility through addressing coordination challenges.

Section 4 evaluates the RHF's individual, voluntary approach to housing resilience and the variation in homeowner pathways and outcomes. The evaluation finds that the program successfully reached many homes that had sustained damage in the 2021-2022 Southern Queensland Floods, with most beneficiaries reporting improved confidence in their home's resilience. Progression through the program was shaped by both physical characteristics, such as inundation severity and building typology, and individual homeowner circumstances,

[i] Provisional data, accurate as at 8 December 2025

including financial capacity, emotional wellbeing and social support. While eligibility assessments appropriately matched interventions to housing types, homeowners did not always pursue the option deemed most physically resilient. This variation, which was appropriate to the voluntary nature of the program, also revealed the importance of supplementing individualised resilience programs with targeted support for households facing compounding challenges.

Section 5 evaluates the mobilisation and support mechanisms that enabled homeowners to engage with the RHF. The evaluation finds that effective delivery relied on a broader ecosystem of standardised, specialised, and tailored support beyond formal program structures. Service delivery staff, industry and community education, internal and external service navigators, builders, and coordinated support services played critical roles in helping homeowners interpret technical requirements, navigate administrative and construction processes and sustain engagement. These stakeholders sometimes absorbed additional responsibilities not explicitly designed into the program. While additional support enabled vulnerable homeowners to progress, it also introduced variability and unrecognised challenges, highlighting the need for clearly resourced and coordinated support throughout the life of a program. In addition, through the Insurance Delivery Model pilot, program staff and insurers explored whether insurance-led reconstruction could be aligned with government-funded resilience upgrades for insured homeowners. The pilot demonstrated that insurance could complement resilience programs but would need significant industry transformation to operate at scale as a key delivery mechanism for resilient post-disaster reconstruction.

Section 6 synthesises the findings into an overall program and policy evaluation. This section concludes that the RHF was an effective recovery program that provided meaningful physical resilience outcomes under challenging conditions. Its strengths lie in learning over time, policy flexibility and the progressive alignment of delivery with recovery realities. Consistent with the voluntary nature of the program, outcomes varied according to individual homeowners' capacity and access to support. From a policy perspective, the RHF provides significant learnings including the benefit of retaining existing knowledge and systems to feed into potential pre-disaster mitigation programs, and the importance of rapid activation in post-disaster recovery programs. Future, ongoing monitoring can assess enduring impacts on housing resilience, insurability, equity of outcomes and broader dimensions of household and community resilience. Embedding learnings from the RHF into future DRFA-funded programs can provide an evidence base to inform preparedness, equity and the durability of resilience outcomes, consistent with the objectives of recovery and resilience policy.

Section 7 provides a preliminary assessment of the Property Level Flood Information Portals initiative, which suggests that the supportive project is tracking towards delivery of a technically sound and publicly accessible system for property level flood awareness. The overall evaluation finds that many RHF benefits are likely to accrue over the long-term and extend beyond the program's delivery period.

Central West Queensland – Photo courtesy of QRA

End-user statement

Major General Jake Ellwood (Retd), Chief Executive Officer, Queensland Reconstruction Authority (QRA)

The Queensland Reconstruction Authority (QRA) acknowledges the completion of the *Evaluation of the Resilient Homes Fund* (RHF), which provides a comprehensive assessment of the program's implementation and outcomes. The RHF, a $741 million initiative jointly funded by the Queensland and Australian governments under the Disaster Recovery Funding Arrangements, was instrumental in supporting homeowners affected by the 2021-22 Southern Queensland Floods.

Through interventions such as the Voluntary Home Buy-Back, Home Raising, and Resilient Retrofit programs, the RHF has contributed significantly to enhancing flood resilience and accelerating community recovery.

We recognise the efforts of the University of Queensland and University of Melbourne with the support of Natural Hazards Research Australia for their rigorous evaluation and valuable insights. Their work has provided a robust evidence base that highlights the importance of continued investment in disaster resilience initiatives. The findings will serve as a critical resource for understanding the impact of the RHF and for informing future disaster resilience policy and program development.

The evaluation insights and program reflections contained within this report provide an opportunity to further enhance the effectiveness and efficiency of disaster recovery and resilience-building efforts across Queensland.

1 Resilient Homes Fund background and context

This section contextualises the Resilient Homes Fund (RHF)[7] and provides the foundations for the evaluation that inform this report. The section outlines the flood events that shaped the program and presents an overview of the different agencies involved in delivering the RHF.

The 2021-22 Southern Queensland Floods

Queensland experienced repeated and severe flooding across the 2021-22 season, resulting in one of the state's largest recovery operations. The events affected 39 of Queensland's 77 Local Government Areas (LGAs) refer to Figure 1.1 and Appendix A) and caused widespread damage to homes, businesses, infrastructure and community facilities. A Deloitte independent assessment estimated the total recovery cost of the flooding in South-East Queensland at $7.7 billion.[8]

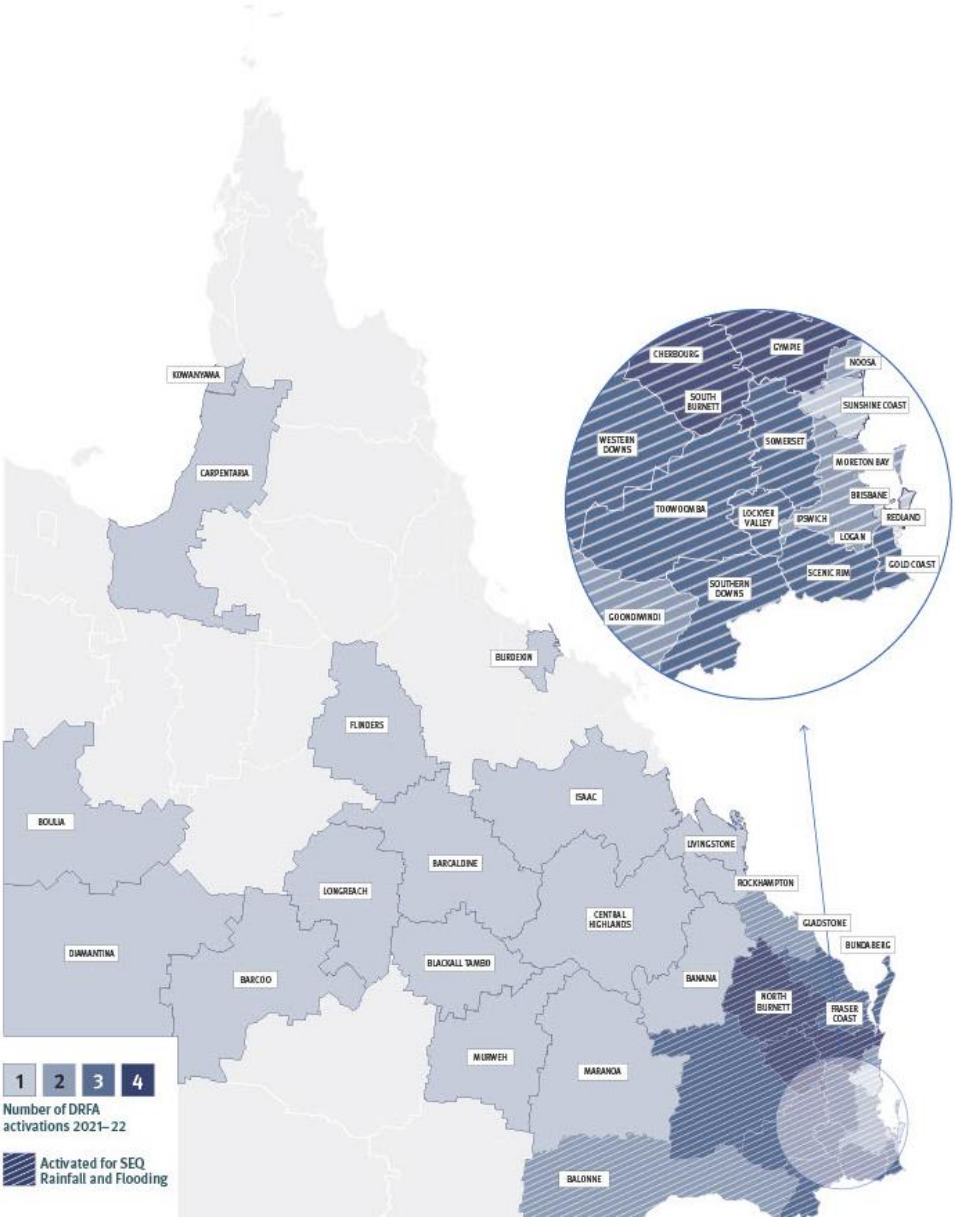


FIGURE 1.1: LGAS IMPACTED BY THE 2021-22 SOUTHERN QUEENSLAND FLOODS[9]

The 2021-22 Southern Queensland Floods comprised four significant events, all of which formed the basis for eligibility under the RHF:

- Central, Southern and Western Queensland Rainfall and Flooding (10 November – 3 December 2021)
- Ex-Tropical Cyclone Seth (29 December 2021 – 10 January 2022)
- South-East Queensland Rainfall and Flooding (22 February – 5 April 2022)
- Southern Queensland Flooding (6 – 20 May 2022)

While most individual properties were not inundated in every event, many LGAs and communities were affected by multiple flood events within the same season (refer to Figure 1.1 and Appendix A). Major urban centres including Brisbane and the broader Greater Brisbane region (Logan, Moreton Bay and Ipswich), Gympie and Maryborough experienced significant flooding, alongside impacts across the Gold Coast, Sunshine Coast and extensive impacts across regional and rural communities. Thousands of households, small businesses, not-for-profit organisations and primary producers were affected, and several lives were tragically lost.

The severity, cumulative nature and geographic extent of these events created the conditions that shaped the RHF and informed the need for a housing resilience program.

1.1 Program objectives, components, and processes

The RHF was a first-of-its-kind housing resilient recovery program designed to support homeowners affected by the 2021-22 Southern Queensland Floods. The RHF was jointly funded by the Australian and Queensland Governments through the Disaster Recovery Funding Arrangements (DRFA), which are administered by the National Emergency Management Agency (NEMA) and the Queensland Reconstruction Authority (QRA), respectively. DRFA funding was provided under Category D, which is for exceptional circumstances assistance beyond standard measures[10] and totalled $741 million.

Photo courtesy of RHF

As shown in Figure 1.2, the RHF comprised five components which were delivered by QRA and the Department of Housing and Public Works (DHPW). The Queensland Rural and Industry Development Authority (QRIDA) was responsible for administering the end-to-end funding component for Home Raising and Resilient Retrofit in accordance with Schedule 44 of the Rural and Regional Adjustment Regulation 2011.[11]

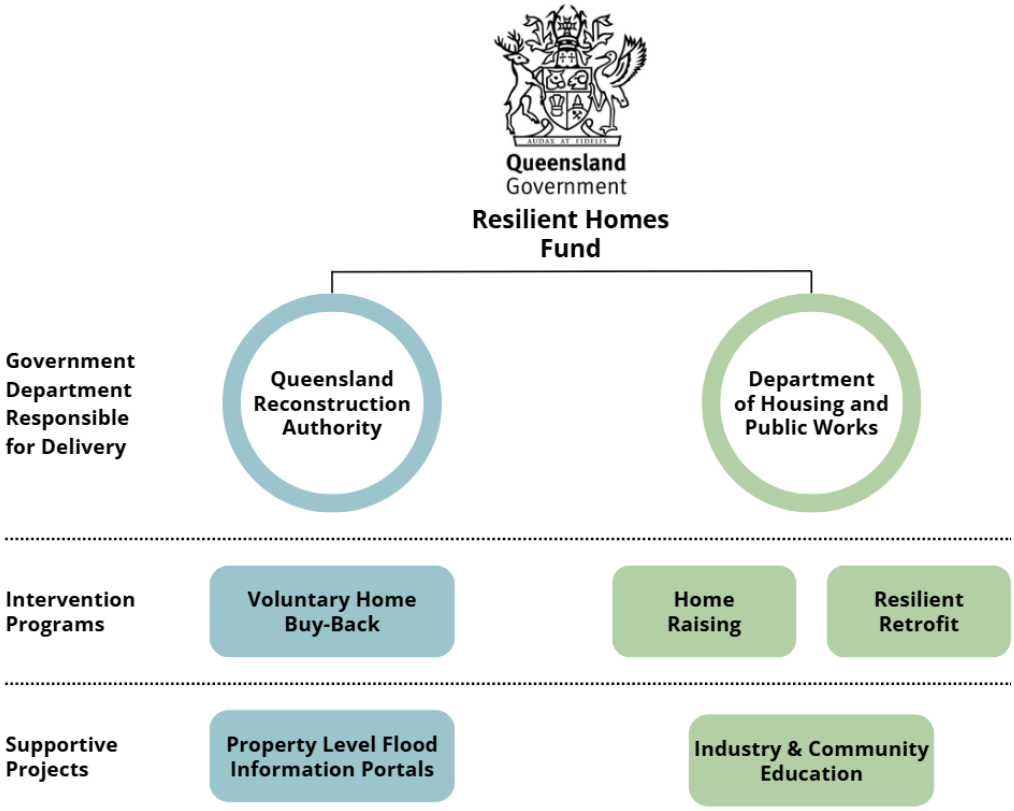


FIGURE 1.2: OVERVIEW OF RHF AGENCIES AND THEIR PROGRAMS AND PROJECTS

Program objectives

The RHF program aimed to strengthen community resilience by supporting homeowners to:

- better understand their flood risk
- implement practical solutions to reduce exposure to future flooding
- accelerate community recovery following the 2021-2022 events
- reduce future response and reconstruction costs.

Intervention programs

The RHF initially provided three core voluntary resilient interventions:

- Voluntary Home Buy-Back (VHBB)[12]: Grant funding to support government acquisition of the most flood-affected homes, followed by demolition or removal and land repurposing to remove high-risk properties from residential use.
- Home Raising[13]: Grant funding of up to $150,000 (initially $100,000) to elevate homes above the identified Assessed Flood Level (AFL)[14] or the 2021-2022 flood event level (whichever was higher), with co-contribution.
- Resilient Retrofit[15]: Grant funding of up to $50,000 for resilient repairs and retrofitting, with co-contribution.

If Home Raising or Resilient Retrofit works were estimated above these amounts and the homeowner was eligible, the RHF could split the additional cost with them on a dollar-for-dollar basis (co-contribution).[16] Homeowners experiencing genuine hardship (as determined by the RHF) could have their co-contribution waived.

Funding was available to both insured and uninsured homeowners, and an Insurance Delivery Model (IDM) pilot program[17] was also developed for eligible insured participants, in partnership with insurers.

Eligibility requirements varied across interventions but were grounded in these core principles as illustrated in Figure 1.3 and discussed further in Section 4.1.1:

- The applicant must be the property owner (tenants cannot apply).
- The property must be within one of the 39 affected LGAs.
- The property must be used primarily for residential purposes.
- The home must have been inundated by one of the specified 2021-2022 eligible flood events.

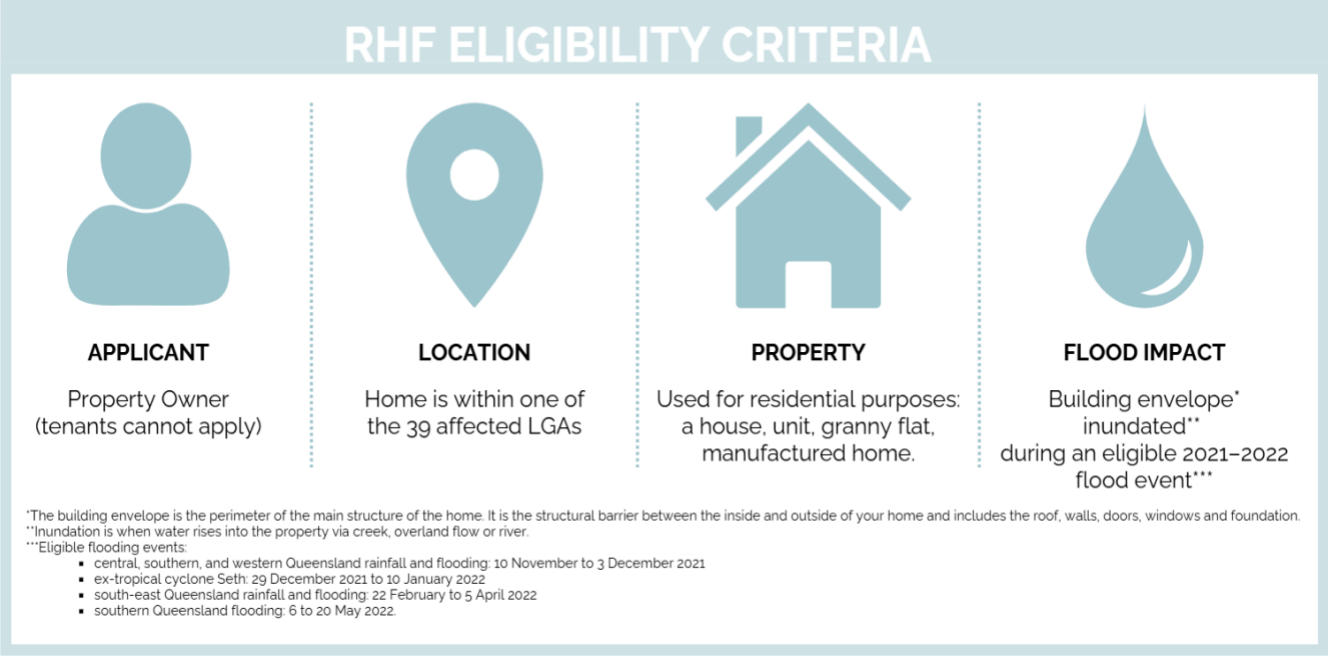


FIGURE 1.3: PROGRAM ELIGIBLITY CRITERIA

Application processes

The RHF application process operated through a single, program-wide Registration of Interest (RoI), which served as the common entry point for homeowners to be considered for eligibility into the VHBB, Home Raising and Resilient Retrofit interventions.

A Home Assessment process was used to assess program eligibility in terms of current flood damage and future flood risk, consider building characteristics, and identify potential resilience options. The Home Assessment process incorporated available flood and property information, including inundation indicators and habitable floor level details, which informed the Home Assessment Report and recommended pathway. While the Home Assessment Report was applied to all three interventions, assessments were delivered by DHPW. The resulting report provided a shared evidentiary basis for decision making across interventions.

Following RoI, homeowners progressed into one of two delivery workflows depending on the identified intervention(s). VHBB followed a property acquisition workflow, while Home Raising and Resilient Retrofit followed a grant-based workflow. Homeowners could only receive funding under one intervention. Where multiple options were identified in the Home Assessment Report, homeowners selected their preferred pathway before entering the relevant workflow.

VHBB workflow

VHBB eligibility was determined collaboratively by QRA and LGAs using flood impact severity, flood risk, structural condition of the property and socioeconomic vulnerability of the homeowner. Exceptionally, two Community Title schemes (e.g., strata properties) were included, for which all homeowners in the scheme needed to register to be considered. The VHBB process reflected statutory requirements for valuation, acquisition and planning changes:

- RoI through the registration portal
- Initial eligibility check
- Home Assessment Report confirming suitability and the recommendation for buy-back
- Confirmation of interest and independent property valuation
- Contract and conveyancing
- Settlement and council taking ownership of property
- Demolition or removal, land rehabilitation and rezoning.

In addition to these steps, QRA established a formal review process that allowed homeowners to request reconsideration of VHBB decisions. The step-by-step appeals procedure was publicly documented on the RHF website, providing transparency and a consistent approach to decision review.

Home Raising and Resilient Retrofit workflow

These interventions were delivered through a grant application model administered by the QRIDA in partnership with DHPW. QRIDA managed homeowner submissions, administrative eligibility assessments, and other funding processes through the QRIDA Apply Online portal.[18] Following submission, DHPW undertook the technical Value for Money (VFM) assessment of the supplied scope of works and quote and then issued the VFM certification required to support funding decisions.[19]

Homeowners progressed through the following steps:

- RoI through the registration portal
- Initial eligibility checks relating to homeownership and program participation requirements by DHPW and QRA
- Home Assessment by DHPW, drawing on flood risk information, evidence of inundation, and habitable floor level data, resulting in a Home Assessment Report that identified suitable intervention pathways and recommended next steps
- Submission of a funding application via the QRIDA portal, supported by the Home Assessment Report, contractor quotes, and required documentation
- Application review by QRIDA, including administrative eligibility checks and completeness of documentation
- VFM assessment, undertaken by the RHF to assess proposed scopes of works and contractor quotes against program requirements and flood resilient design guidance, with clarification sought from homeowners or contractors where required
- Conditional approval, issued by QRIDA, followed by homeowner engagement with a licensed contractor and submission of a building contract
- Final approval and Letter of Offer, issued by QRIDA once contractual and VFM requirements were satisfied
- Delivery of approved works, supported through staged milestone payments administered by QRIDA
- Final completion inspection by DHPW, including submission of required trade certificates prior to final payment.

These pathways enabled homeowners to keep their property, with the grant supporting the construction of specified resilient features for that property. The step-by-step appeals procedure for the Home Raising and

Resilient Retrofit programs was also publicly documented on the RHF website, providing transparency and a consistent approach to decision review.

The RHF also established a Financial Hardship Certificate, which waived the co-contribution requirement for approved eligible works in the Home Raising and Resilient Retrofit interventions. The process was published on the RHF website.

Supportive projects

The RHF included two supportive projects (refer to Figure 1.2) in conjunction with the three intervention programs:

- Property Level Flood Information Portals (the Portals): To provide consistent, property-specific flood information to the public across RHF-eligible LGAs (refer to Section 7).
- Industry and Community Education (ICE): The primary supportive project of the RHF, with an emphasis on increasing understanding of flood risk and resilient building design in industry and the community (refer to Section 5.2).

1.2 Program timeline

Figure 1.4 demonstrates the timeline of key RHF program milestones. Although the RHF was originally intended as a two-year program, the Allowable Time Limit was extended several times in recognition of recovery conditions (refer to Section 3.4).

19 MARCH 2022	RHF Program announced
12 MAY 2022	Homeowner RoI process opened
18 JUNE 2023	VHBB intervention closed
30 JULY 2023	Program closed to new registrations
1 DECEMBER 2025	Grant applications for Home Raising and Resilient Retrofit funding closed
31 MARCH 2027	Home Raising and Resilient Retrofit works are required to be completed
30 JUNE 2027	All final certification, inspections, and invoices for Home Raising and Resilient Retrofit works are required to be finalised and submitted to the QRIDA.

FIGURE 1.4: RHF PROGRAM TIMELINE

2 Evaluation overview

This evaluation adopted a design consistent with the Queensland Government Program Evaluation Guidelines,[20] which emphasise proportionality, methodological clarity and alignment between evaluation scope and program context. The approach also reflected the Commonwealth Evaluation Policy,[21] which sets out the overarching principles for credible and ethical evaluation across Australian Government programs. Guidance from the Australian Centre for Evaluation (ACE)[22] informed the practical application of these principles, as ACE supports agencies to implement the Commonwealth Evaluation Policy through contemporary evaluation methods, capability building and evidence standards. These frameworks provided a coherent foundation for evaluating the implementation of the RHF program, alongside the purpose-built evaluative framework developed in Work Package 1 (WP1).

2.1 Evaluative framework

Consistent with the funding terms of Natural Hazards Research Australia (the Centre) and QRA, WP1 of this evaluation developed a purpose-built evaluative framework to assess the RHF program and to inform future resilient housing policy considerations. The framework was originally developed and published in the report *Resilient housing policies: a framework for evaluation*,[23] which synthesised evidence from comparable national and international disaster-related housing resilience programs. Its development was informed by the Commonwealth Evaluation Policy and the Organisation for Economic Co-operation and Development (OECD) evaluation guidelines.[24]

The evaluative framework, presented in Figure 2.1, identifies six dimensions that shape program design, delivery and longer-term resilience outcomes of disaster-related housing policies and programs. These dimensions provide the conceptual foundation for the evaluation and underpin the analysis presented in Sections 3 to 6 of this report. No investigation or comparison has been explored in terms of program design of the RHF to programs outlined in WP1, which was intended to develop an evaluative framework rather than a one-to-one comparison.

The six dimensions are:

1. **Policy guidelines:** Clarity over the remit and intended deliverables, particularly the extent to which the policy is designed to improve the physical resilience of properties.
2. **Pre-existing framework or starting anew:** Programs are implemented in contexts with significant population, housing and demographic diversity, necessitating granular data to identify and clear procedures to process the target population. Programs are, therefore, more effective when they build on pre-existing disaster policies, insurance schemes, or resilience initiatives rather than being created from scratch. This allows for faster identification and mobilisation of affected homeowners. However, novel programs have little pre-existing data or procedures, necessitating development of a new framework, which is time consuming and requires new learning.
3. **Trade-offs in program delivery**: Programs must balance two major trade-offs:
    a. **Collective versus individual approaches**: Some programs apply to whole communities that have been zoned for targeted resilience measures (e.g., buy-backs of entire suburbs), while others assess and fund resilience measures on an individual property basis. Typically, programs that are starting anew take an individual property approach because they lack the data and procedures to apply whole community approaches.
    b. **Eligibility and equity**: Some programs are exposure based, with eligibility based predominantly on whether the property was affected by the specific disaster, on the grounds that this constitutes a

fair and equal basis for access to support with resilience measures. Others consider equity as the grounds for eligibility on the basis that different groups have different financial and social capacities to access a program. Equity-based programs prioritise vulnerable groups based on income, financial need or demographic characteristics.

4. **Mobilisation:** A program's effectiveness depends on how well it engages affected homeowners and their communities in supporting them through complex decision making and application processes. Some programs provide case workers to assist homeowners or use specific incentives such as discounted insurance premiums or rental incentives to help mobilise homeowners. These mobilisation measures can support more equitable treatment of vulnerable groups who might otherwise struggle to access a program.

5. **Evaluating outcomes of a resilience program**: Programs are typically evaluated on the extent to which they met their initial policy guidelines, which is usually the number of properties made more physically resilient. However, resilience programs are complex and impact homeowners beyond modifications to properties, including financial, social, and emotional resilience. Therefore, evaluation can also include consideration of the way that a resilience program caters to and supports these other dimensions of resilience.

6. **Feedback loop from disaster recovery to mitigation:** Effective programs extend beyond immediate disaster recovery interventions, incorporating resilience measures that reduce future risks and integrating lessons learned into future policies. Programs should ideally shift from post-disaster recovery to pre-disaster mitigation to build resilience before events occur and support the establishment of disaster recovery frameworks.

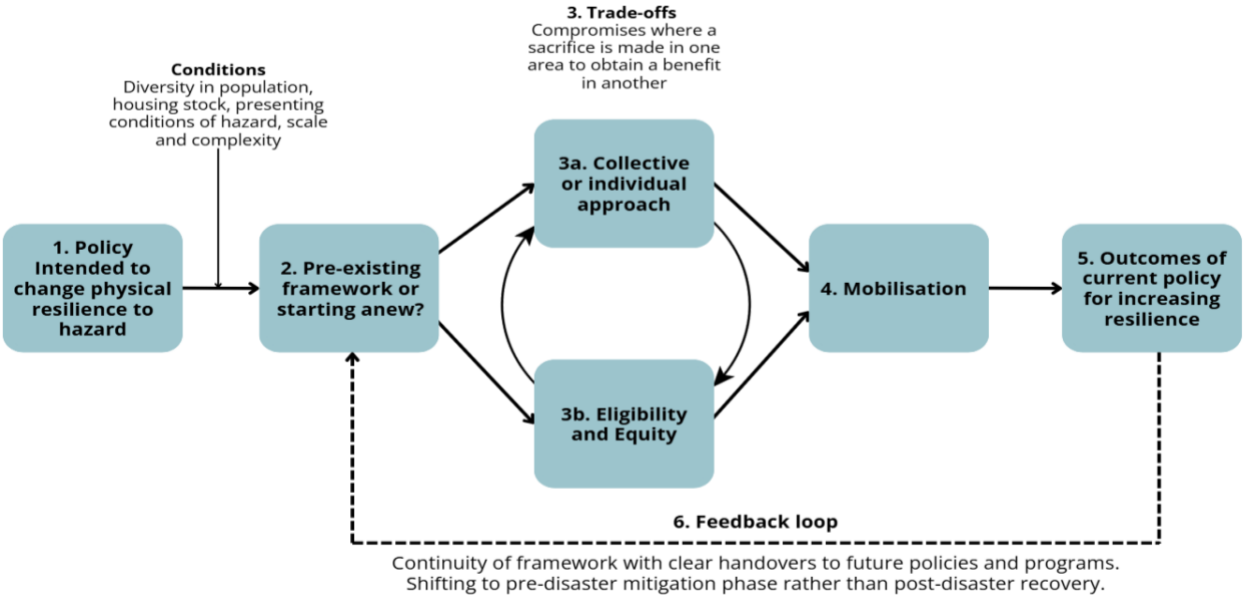


FIGURE 2.1: THE EVALUATIVE FRAMEWORK

How the framework shaped the RHF evaluation

Sections 3 to 5 of this report present the evaluation findings, drawing on qualitative and quantitative evidence (refer to Section 2.3) and the benchmarks developed through the abovementioned report. These benchmarks informed both the evaluative logic and the criteria used to assess the RHF. Section 6 provides a summative RHF program and policy evaluation and identifies policy learnings Section 7 concludes the report with a preliminary assessment of the Portals. This structure aligns with precedents in evaluations of comparable recovery and resilience programs.[25]

2.2 Applying evaluative criteria to the evaluative framework

While the evaluative framework presented in Figure 2.1 provides the conceptual foundation for understanding disaster-related housing policy design, delivery and outcomes, it does not in itself constitute an evaluative judgement. To assess the RHF in a way that is consistent with ACE, OECD and Queensland Government evaluation guidance, the framework was operationalised through a set of evaluative criteria. These criteria did not replace the framework. Rather, they provided the evaluative lens through which the framework's dimensions were assessed in relation to program implementation and policy outcomes. The evaluative framework structured what was examined, while the evaluative criteria structured how judgements were made.

To align with the aforementioned guidance, three evaluative criteria were selected for program evaluation: *effectiveness*, *appropriateness* and *efficiency*, and three were selected for policy evaluation: *learning, impact* and *sustainability*. These criteria reflect contemporary standards for assessing complex public programs such as the RHF. Explanations of the evaluative criteria and their application in this report are provided in Table 2.1. Each criterion is paired with the two key areas of evaluation that guided analysis, findings and application.

TABLE 2.1: APPLICATION OF EVALUATIVE CRITERIA IN THIS REPORT

Evaluative criteria	Focus	Explanation of criteria, as applied in this report
Effectiveness	Program evaluation	Effectiveness refers to the extent to which a program achieved its intended objectives. OECD guidance focuses on the relationship between program intent and actual results, and the Queensland Government guidelines emphasise achievement of intended outcomes. For the RHF, effectiveness concerned how well program structures, processes and supportive programs enabled eligible homeowners to reduce future flood risk and progress with their chosen intervention.
Appropriateness	Program evaluation	Appropriateness assesses the suitability of program design and delivery mechanisms to the needs and circumstances of the intended users. This aligns with the Queensland Government's emphasis on program fit and the OECD criterion of relevance. For the RHF, appropriateness concerned whether program structures and processes were realistic and accessible for flood-affected households with diverse capacities to respond to the program.
Efficiency	Program evaluation	Efficiency focuses on the relationship between resources, processes and outputs. OECD guidance highlights whether results are achieved without unnecessary resource use and Queensland Government guidelines emphasise proportionality in program design and administrative processes. For the RHF, efficiency concerned with whether systems, staffing and procedures supported timely and defensible decision making in a context with no pre-existing datasets or workflows.
Learning	Policy evaluation	Learning, drawn from Commonwealth Evaluation Policy guidelines, focuses on generating learning from existing policies to support continuous improvement in policy design. For the RHF, learning was oriented towards providing evidence and input from this policy to identify and reinforce good practices in, and improvement of, program design.

Impact	Policy evaluation	Impact, drawn from OECD guidance, focuses on the potential for a policy to have higher-level effects, intended or unintended, that have the potential to support wider societal change. For the RHF, impact concerned the broader societal learnings and potential for change arising from the policy.
Sustainability	Policy evaluation	Sustainability, drawn from ACE and OECD guidance, focuses on the potential for long-term value and on considering forms of ongoing monitoring to establish whether policy benefits are likely to endure. For the RHF, sustainability focused on the potential for ongoing housing resilience beyond the boundaries of this recovery-based program.

This evaluation focused on the following focal areas:

RHF program evaluation

- Evaluation of the *effectiveness* of the RHF program implementation in supporting eligible homeowners to make informed decisions and progress with their chosen resilience intervention within a disaster recovery context.
- Evaluation of the *appropriateness* of the RHF program to develop and deliver implementation processes that accommodated the varied needs of flood-affected households, while remaining aligned with policy requirements and program intent.
- Evaluation of the *efficiency* of the RHF systems, staffing and processes established to support homeowners to progress through a suitable intervention within an appropriate timeframe, noting the voluntary nature of the program and the absence of pre-existing templates or databases.

RHF policy evaluation

- Evaluation of the key *learnings* from the RHF policy that supported its implementation and provided considerations for future resilient housing policies.
- Evaluation of the potential *impact* of the RHF policy, beyond the immediate remit and period of implementation, for ongoing housing resilience and how that might inform future policy considerations.
- Evaluation of the potential *sustainability* of the RHF policy resilience effects, including contributions to future insurability, land-use change, enduring flood risk knowledge, and the establishment of systems that support ongoing monitoring and learning.

Together, these criteria and focal areas provided a consistent analytical basis for the evaluation of both the RHF program implementation and policy. The findings of the evaluation are presented in Sections 3 to 5, while Section 6 presents the summative program and policy evaluation and Section 7 offers a preliminary assessment of the Portals.

2.3 Methodology and data summary

This evaluation followed best practice in interdisciplinary research design,[26] using mixed methods[27] that integrated qualitative and quantitative evidence to provide breadth and depth[28] in assessing the design, delivery and emerging outcomes of the RHF. The approach combined structural and hazard data, survey responses, interviews, observations, and documentary analysis, enabling triangulation across multiple data sources, stakeholder groups and program components. Some data were held in different agencies, as depicted in Figure 2.2, necessitating collaboration with agencies to negotiate access to relevant data. Other original data were created by the research team through survey, interview and observational methods (refer to Table 2.2).

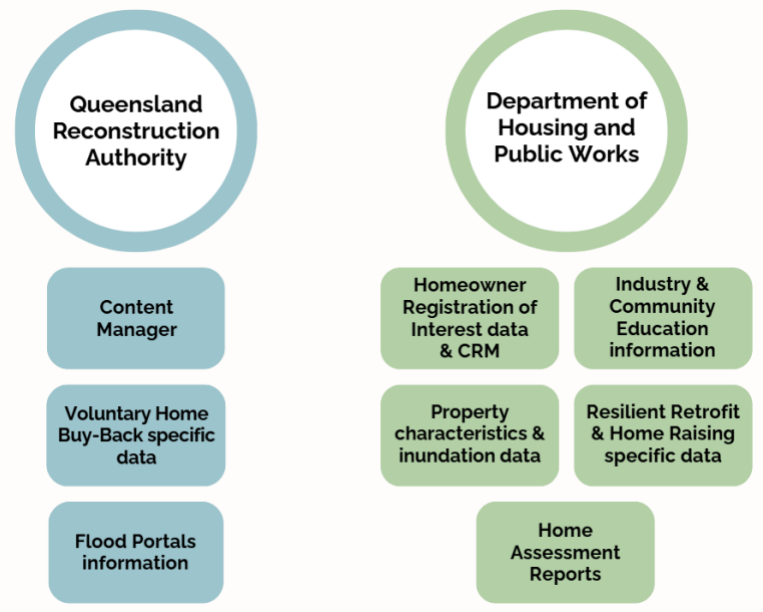


FIGURE 2.2: AGENCY DATA OWNERSHIP

Breadth was established by collecting quantitative data on the 6,537 properties whose owners registered interest in the RHF program. Data corresponded to all three interventions and provided specific information on building types and inundation levels. All data were anonymised to ensure confidentiality. These data are listed in Exhibit 2.1 and include descriptions of the content of each source.

Depth was established by inviting registrants in the three interventions to participate in a survey, for which response rates of 16% were received for the survey delivered to 959 VHBB registrants and 10% for the survey delivered to 3,095 Home Raising and Resilient Retrofit registrants. Consistent with best practice to ensure research instruments address meaningful issues for participants,[29] each survey was co-designed with the relevant research partners in QRA and DHPW to ensure that questions reflected deep program knowledge. Further depth was then gained by conducting cluster analyses of this data to establish key types of respondents,[30] from which in-depth interviews were conducted with a representative sample of survey respondents to gain deeper insights into the experiences of RHF participants.

Interviews were also conducted with other key stakeholders including program staff, building contractors, insurers, local government officials and support agencies. These participants were selected through purposive sampling.[31] Key stakeholder groups were identified through stakeholder mapping, developed at the outset of the evaluation and agreed with QRA and the Centre, to guide the sampling strategy. Interviews were recorded with permission and according to university ethical guidelines and transcribed verbatim for analysis.

Additional depth was gained through observational methods,[32] immersing a researcher into the key agencies for several months to gain deeper insights into the specific enablers and challenges associated with program implementation, and how these were addressed. This observational method was supplemented with attendance at ICE events, field visits with program staff to observe sites of VHBB, and completion inspection visits for Home Raising and Resilient Retrofit. These observations were supported by attendance at what are termed field-configuring events,[33] which included field trips, workshops, conferences, and community events at which key stakeholders and participants engaged with relevant policy issues or with the RHF program.

Finally, consistent with principles of triangulation, documentary data from both the public domain and materials provided by the agencies under confidentiality agreements were collected.[34] Such files targeted internal and external stakeholders and included lessons learned, a risk register, a decision register, presentations, communications, and weekly and monthly reports. The survey data and the qualitative dataset are detailed in Table 2.2.

The analytic procedures, involving different disciplinary expertise and protocols, were agreed with the research partners in advance and designed into the data collection and analysis.[35] Relevant analyses and their associated analytic techniques, each of which is grounded in scientifically credible methods for the specific quantitative or qualitative data source, are explained in the appendices linked to the sections in which those findings are presented. As results from the qualitative analysis are presented throughout the report, explanation of the analytic method is provided in Appendix B. Throughout the data collection and analysis, monthly meetings were held with research partners from each agency and quarterly meetings with the research funders to ensure that the methods and analysis evolved to reflect key issues as they emerged[36] whilst also remaining on track to deliver the evaluation.

Exhibit 2.1: Quantitative data received

All data files used a unique property identifier to enable analysis. However, all confidential or identifiable information was removed.

QRA provided Excel files containing data on homes in the VHBB intervention:

- **"Master register"** – contained data relating to characteristics of 981 homes, and whether they accepted the buy-back offer.
- **"Timeline"** – contained the weekly status of each of the 981 VHBB homes from 30/09/2022 (week 1) to 08/11/2024 (week 111).

DHPW provided Excel files containing data for all RoIs, as well as specific to Home Raising and Resilient Retrofit participants:

- **"UQ Quantitative Data Request 1"** (data current as of 03/02/2025)- contained data from 6,537 properties that registered interest in the RHF – including inundation depth and building type. The dataset captured all properties participating in the Home Raising and Resilient Retrofit interventions and 979 of the 981 properties listed in the QRA VHBB spreadsheets. Two VHBB properties were not included because they were Community Title homeowners that had not accepted their offer at time of reporting.
- **"UQ Quantitative Data Request 2"** (data current as of 03/02/2025)
    - **"Registrations" sheet** – contained assorted information for 4,194 homes, but were mostly duplicated in subsequent sheets, or redacted.
    - **"VFM" sheet** – contained data on the 1,536 homes that reached the VFM assessment stage of Home Raising and Resilient Retrofit. This file also contained information on the values of insurance overlap, and amount of homeowner and RHF contributions.
    - **"Variation" sheet** – contained data on the 855 variations to existing VFM assessments. Some homes had more than one variation request lodged over time, and this file recorded the updated contributions.
    - **"Completion" sheet** – contained data on the 775 homes that completed the Home Raising and Resilient Retrofit interventions, providing the date of completion.
    - **"QRIDA Full list" sheet** – contained data drawn from the 1,865 homes on the QRIDA platform. This sheet was not used for any analysis as information here were either already present in other sheets or were not useful for analysis.
    - **"UQ Quantitative Data Request 3"** – contained 1,820 strategies implemented for 539 Home Raising and Resilient Retrofit properties. It contained the strategy type for each intervention (e.g., "1. External Services"), a more specific flood resilience strategy (e.g., "1.1 – Raise the electrical switchboard"), and the date for each intervention.
    - **Data currency:** Data for VHBB were current as of 08/11/2024 and data for Home Raising and Resilient Retrofit were current as at 03/02/2025.

TABLE 2.2: SUMMARY OF DATA COLLECTED BY UQ

Interviews per type of participant	Interviews (participants)
QRA program staff	13 (19)
DHPW program staff (including technical advisors)	73 (88)
Other State Government staff (e.g., Community Recovery, Department of Housing, QRIDA)	5 (5)
Contractors (e.g., builders, demolition workers, insurance repairers)	13 (16)
Insurers	8 (27)
LGAs (e.g., elected representatives, staff, contractors)	21 (40)
Homeowner support initiatives (e.g., External Service Navigators, other community groups)	16 (21)
Homeowners	61 (70)
Total interviews	**210 (286)**
Observations per type of event attended	**Number of events**
Meetings, training, and informal situations	49
ICE events	6
Home Raising and Resilient Retrofit completion inspections	12
Field-configuring events	18
Total event observations	**85**
Survey respondents by cohort (including quantitative and qualitative responses)	**Number of responses**
VHBB homeowners (excluding Community Title) – response rate 16%	158
Home Raising and Resilient Retrofit homeowners – response rate 10%	312
Total survey respondents	**470**
Meetings with research partners	**70**
Agency documents reviewed	**225**

2.4 Limitations of the evaluation

Some limitations should be considered when interpreting the findings of this report:

- **Program still in delivery:** The RHF was ongoing during the evaluation, and some implementation processes, outputs and outcomes were still evolving at the time of reporting. As a result, findings reflect the program as delivered up to the time of data collection rather than its eventual completion.
- **Incomplete data availability:** Not all data requested by the research team was available during the evaluation period. Data sharing was constrained by factors such as privacy obligations and other matters stipulated within data sharing agreements. Additionally, datasets were incomplete as the program was not yet finalised (refer to Exhibit 2.1). Where results are partial due to incomplete data, the research team emphasise that the findings provided within this report are only indicative.

- **Extending the policy evaluation framework:** While the evaluative framework (Figure 2.1) provided a robust basis for assessing RHF design and delivery, its application to a large-scale, recovery-phase housing program also revealed aspects of implementation that were consequential for outcomes but not fully foregrounded within the existing framework dimensions. These do not represent deficiencies in the framework, nor do they constitute a new evaluative framework. Rather, they indicate areas where future applications of the framework may benefit from greater analytic attention when evaluating complex, multi-stakeholder recovery programs. These framework extensions are identified and discussed in Section 6.
- **Evaluation scope:** The scope of program elements evaluated through this report are provided in Figure 1.2 and focuses on delivery of the RHF by QRA and DHPW. The evaluation report does not consider the following matters:
    - The role and activities of the QRIDA or the related legislation including the Rural and Regional Adjustment Regulation 2011.[37]
    - The role of, or participants' engagement with, wider government support to homeowners such as other DRFA programs which may have assisted them in post-disaster recovery. For example, the Accommodation Package (Category C), Community Health and Wellbeing Package (Category C), or Personal Hardship Assistance Scheme (Category A) have not been evaluated.
    - Analysis of the DHPW Value for Money Assessment process, and the DHPW Financial Hardship Assessment process.
    - Analysis of the Home Raising and Resilient Retrofit programs in matters relating to construction procurement and existing legislative requirements for building works for individual homes.
    - The RHF Governance arrangements, including the Rural and Regional Adjustment Regulation, RHF Program Board, Joint (Commonwealth and Queensland) Guidelines and Operational Guidelines.

3 Evaluating program set-up: Establishing a new resilience program

This section evaluates how effectively the RHF established a 'starting anew' program in the absence of pre-existing enabling mechanisms. As typical of such post-disaster recovery programs,[38] establishment required rapid development of new systems, data structures and coordination processes to deliver housing interventions within a recovery context.

The evaluation focuses on four core areas of program set-up:

1. **Effectiveness and efficiency of establishing data and eligibility foundations:** Evaluating the RHF's development of suitable systems for identifying and assessing eligible homeowners and operation of these systems under time pressure.
2. **Effectiveness and efficiency of interagency coordination and delivery processes and structures:** Evaluating the RHF's establishment of processes and structures for collaboration between agencies to support program delivery.
3. **Effectiveness, appropriateness and efficiency of coordination with LGAs to deliver VHBB:** Evaluating the coordination between QRA and LGAs in identifying eligible properties and implementing the VHBB intervention.
4. **Appropriateness of delivery in a recovery context:** Evaluating the RHF's adaptation to post-disaster recovery conditions, including responsiveness to homeowner needs, flexibility in policy delivery and support for staff wellbeing.

Table 3.1 summarises the insights from the evaluation of the program set-up. The table presents each focus area, evaluation insights emerging from the evidence and reflections generated through the evaluation of this program which could be considered for the delivery of any future program.

TABLE 3.1: SUMMATIVE EVALUATION OF PROGRAM SET-UP

Evaluative focus	Evaluation insights	Program reflections
Effectiveness and efficiency of establishing data and eligibility foundations	Despite limited baseline data and lack of established procedures, the RHF successfully created data systems at speed to support consistent and accountable eligibility assessments under significant time pressure, with efficiency improving as processes matured.	Establishing shared data agreements, property identifiers and standardised assessment templates in advance, where feasible, can support faster program delivery.
Effectiveness and efficiency of interagency coordination and delivery processes and structures	Early duplication and inefficiencies stemmed from different interventions residing in different agencies. Coordination became more efficient when shared systems and governance mechanisms were introduced, enabling more effective use of resources from each agency.	Establishing a single or special-purpose agency, or establishing integrated systems at inception, can minimise duplication and enhance accountability and cost efficiencies for complex recovery programs.
Effectiveness, appropriateness, and efficiency of coordination with LGAs to deliver VHBB	Coordination between QRA and LGAs was efficient and effective in managing a staggered program of buy-back that could address the volume of properties and the variation in LGAs.	Buy-back programs are effective when designed to roll out in sequential tranches for efficient administration and when they

	It was also appropriate to use contractors situated in LGAs to sensitively manage local implementation for homeowners and surrounding neighbourhoods.	draw on local staff within LGAs for sensitive implementation of demolition processes.
Appropriateness of delivery in a recovery context	Evolution of delivery from a procedural model to a homeowner-centred approach, including policy adaptations, was appropriate in improving accessibility within a recovery context, albeit that the updating created pressures in communication and on staff wellbeing.	Embedding structured communication protocols, trauma-informed engagement and workforce wellbeing frameworks at inception support sustained delivery quality and workforce resilience.

3.1 Effectiveness and efficiency of establishing data and eligibility foundations

This section evaluates how data constraints and eligibility design shaped effectiveness and efficiency in establishing delivery procedures for the RHF program. The analysis examined: how the RHF established key systems under significant time pressure; how these design choices influenced subsequent delivery performance; and how the new processes enabled timely and consistent decision making in a recovery context.

The Program Guidelines set out the requirements for grant assistance, including the evidence homeowners were required to provide and the information gathered through property assessments. However, as the RHF was a novel program, no centralised data source existed to identify property types, construction characteristics, or inundation levels across the affected population. While historical and flood risk data might have existed, the RHF was established as a post-disaster recovery program under the DRFA and eligibility depended on properties being assessed as affected by specific flood events. As each event produces a different footprint of impact, no pre-existing dataset could identify the eligible cohort in advance. This constrained early implementation efficiency and required program staff to manually assemble, validate and reconcile property level information across 39 LGAs before eligibility assessments and homeowner advice could proceed.

In response, the RHF established a new evidence-based approach to determine eligibility. Existing LGA flood data were collated to develop the AFL criteria,[39] enabling more consistent identification of homes and habitable floors at risk of future flooding. Over time, this technical foundation enhanced the ability to assess homeowner eligibility.

Once homeowner eligibility[40] for the program was confirmed, program staff (and contractors) conducted in-person property assessments through a unique Home Assessment process (refer to Figure 3.1), which informed the production of an individualised Home Assessment Report.[41] This report advised the intervention(s) that the property was eligible for and recommended resilience strategies. Supporting documentation clarified building terminology, aiming to improve homeowners' understanding of the reports.

While eligibility and data procedures needed to be created, the RHF benefited from existing guidance materials. The program drew on the *Flood Resilient Building Guidance for Queensland Homes*[42] developed by QRA in 2019, based on lessons learned through consultation with the building industry, LGAs and Queensland Government agencies, which the ICE-supportive project adapted and operationalised into two core deliverables: the *Design Guidance for Flood Resilient Homes*[43] and the *Industry Guidance for Flood Resilient Homes*.[44] The VHBB process was also streamlined when QRA was able to work with LGAs that had already identified homes for buy-back – most notably the *Ipswich Integrated Catchment Plan*,[45] in which the council

had already assessed which properties were at most risk to future floods and how that risk could be treated (including through Voluntary House Purchase).

FIGURE 3.1: HOME ASSESSMENT PROCESS FOR THE RHF

These examples demonstrated that efficiency was enabled where pre-existing local datasets or design frameworks could be leveraged. Program staff also built new systems for capturing and storing information on RoIs, property characteristics, materials and flood risk. For Home Raising and Resilient Retrofit, clear step-by-step processes[46] were designed for homeowners to follow (refer to Section 1.1).

As a publicly funded disaster recovery program, the RHF was required to establish verification and compliance procedures to meet DRFA and program guidelines. These procedures ensured VFM[47] and adherence to flood resilient design guidance. In Home Raising and Resilient Retrofit, these requirements were supported through the *Industry Guidance for Flood Resilient Homes* and contractor guidance materials,[48] including quoting templates and fact sheets, as well as one-on-one support to assist licensed contractors in understanding program requirements, scope of works and reporting expectations.

Developing new guidance materials and processes was time consuming, as they needed to be accurate, provide access to all potentially eligible homeowners, and incorporate accountability measures for the use of public funds. As recovery programs need to be announced quickly to reassure flooded homeowners,[49] the RHF program was announced in March 2022, followed by rapid mobilisation of the program by April 2022 and readiness to receive RoIs by May 2022. This created time pressures that meant systems needed to be continuously developed while the program was already open for homeowner registrations.

The compressed timeframe and scale of work placed pressure on program staff, who nevertheless succeeded in designing and implementing the program while modifying processes as the delivery environment evolved. In doing so, program staff developed efficient systems and procedures to respond to the volume of homeowners going through the different stages of the VHBB and the Home Raising and Resilient Retrofit interventions at different times. Appendix C illustrates some of these complexities.

Several RHF processes provide a foundation for standardisation in future programs. The Home Assessment Report structure, including the accompanying explanatory materials on building terminology, represents a transferable template for communicating eligibility and recommended interventions. The contractor guidance materials developed for quoting, supporting documentation and VFM assessment can also be adapted into a generic toolkit to support verification and accountability requirements in similar programs. Documented processes such as the RoI data fields, Customer Relationship Management (CRM) configuration and assessment checklists likewise provide examples of data structures that can be adapted into baseline templates for early-stage program set-up.

Overall, the RHF demonstrated effectiveness in establishing a starting anew program by developing systems for assessing and delivering on eligibility for the three interventions under compressed timeframes, with efficiency improving as data systems and procedures matured. The transferable processes identified through this evaluation provide a basis for strengthening preparedness and accelerating delivery in future recovery programs.

Evaluation insights and program reflections: The evaluation found that despite limited baseline data and lack of established procedures, the RHF successfully created data systems at speed to support consistent and accountable eligibility assessments under significant time pressure, with efficiency improving as processes matured. **Establishing shared data agreements, property identifiers and standardised assessment templates in advance can support faster program delivery.**

3.2 Effectiveness and efficiency of interagency coordination and delivery processes

This section evaluates the effectiveness and efficiency of coordination between the QRA and DHPW, focusing on whether governance and data-sharing arrangements were suitable in enabling homeowner progression and timely delivery. As outlined in Section 2.4, this evaluation does not consider the role of QRIDA or the Rural and Regional Adjustment Regulation 2011.

The RHF was jointly delivered by two state government agencies (refer to Section 1.1), with QRA overseeing program administration and delivery of the VHBB intervention and the Portals supportive project; while DHPW delivered the Home Raising and Resilient Retrofit interventions, as well as the ICE supportive project (refer to Figure 1.2).

While this dual-agency structure allowed the program to draw on complementary expertise, it also created challenges in aligning administrative systems, information flows, and delivery timelines. QRA and DHPW operated with different management systems, document storage processes, and data ownership (refer to Figure 2.2). As the program launched, these differences led to inefficiencies in confirming eligibility and transferring case files and created communication issues for homeowners who were engaging with both agencies. For example, consent forms and RoI data collected by DHPW were not immediately accessible to the QRA teams responsible for program administration.

To manage these operational complexities, the agencies established a series of joint mechanisms, including Program Board, Appeals Committees and Technical Panels, alongside routine interagency coordination meetings. Over time, data sharing protocols and a common CRM platform improved case visibility and enabled consistent communication across agencies.

> *"One of the challenges that we had at the start of the program was ensuring both parties had appropriate information and data flowing effectively… Eventually CRM got up and running and… it's been fantastic… If you've got a huge program and you've got more than one lead agency... there needs to be decisions made about how data is managed, and that needs to happen at inception." – Program staff*

These structures supported decision-making transparency and provided a means for managing cases that crossed intervention boundaries, such as when homeowners initially assessed for VHBB later pursued Home Raising or Resilient Retrofit.

Nevertheless, differences in operational focus continued to create challenges. While QRA's work on property acquisition and valuation followed a defined transactional pathway, DHPW's activities in Home Raising and Resilient Retrofit required ongoing interaction with homeowners and builders, creating variable timeframes and additional communication touchpoints. Staff from both agencies described how these differing work rhythms complicated coordination between agencies and occasionally confused homeowners: *"We contacted a homeowner but then they got annoyed because [Queensland Government through the VHBB intervention] already bought their house and were like… 'Aren't you guys communicating?'" – Program staff.*

Staff turnover also affected continuity in both agencies, particularly during early delivery when processes were still being developed. Internal records indicated that both agencies experienced role transitions during the early implementation phase. These movements temporarily affected continuity and efficiency until stabilisation measures, including process documentation and decision registers, were embedded. This was primarily an operational issue as, when staff departed, additional time and resources were required to stabilise program functions: *"When someone with experience leaves, we lose that wealth of knowledge, and then there's more resources involved in training up a new person" – Program staff*. In response, both agencies implemented stronger knowledge-management processes, including standardised guidance, internal Frequently Asked Questions (FAQs) and documented decision pathways (refer to Exhibit 3.1).

Exhibit 3.1: Examples of legacy resources and practices developed during program delivery

Databases	Operational, administration, and program guidelines
CRM and Content Manager	Process maps
Lessons learnt	Assessor's checklists
Decision registers	Home Assessment checklists
Risk registers	VFM quoting and assessment tools
Program improvement trackers	Quality assurance
Weekly and monthly reports	Peer review
	Management reviews

Overall, coordination matured substantially as the program evolved, demonstrating adaptive management in response to early delivery challenges.

Evaluation insights and program reflections: The evaluation found that early duplication and inefficiencies stemmed from different interventions residing in different agencies. Coordination became more efficient when shared systems and governance mechanisms were introduced, enabling more effective use of resources from each agency. Establishing a single or special-purpose agency or establishing integrated systems at inception can minimise duplication and enhance accountability and cost efficiencies for complex recovery programs.

3.3 Effectiveness, appropriateness and efficiency of coordination with LGAs to deliver Voluntary Home Buy-Back

This section evaluates the effectiveness, appropriateness, and efficiency of coordination between QRA and LGAs to deliver the VHBB intervention. VHBB was reliant on coordination between LGAs and QRA to identify potentially eligible properties for VHBB and then to implement the outcomes for those properties that received a VHBB settlement. As properties were bought back and demolished, their land then reverted to the relevant LGA for rezoning to ensure that the land would no longer be eligible for residential purposes. Hence, while the eligibility was assessed by QRA, the property and the land was purchased by the LGA with program funding, necessitating coordination with LGAs to deliver on the VHBB intervention.[50]

QRA needed to interact with LGAs, using their flood data to identify potentially eligible properties for VHBB. Different LGAs had different types and quality of flood data, different resources they could devote to the program and operated on different timescales, requiring QRA to take a flexible and staggered approach to identifying and evaluating property eligibility within the different LGAs.

> *"Some councils… they've got plenty of people that can help us analyse flood data and determine eligibility… For other councils, they probably have one or two people… you just had to play it as it came with every individual council because they're all unique." – Program staff*

To ensure effectiveness, while also catering to variation, QRA implemented a staggered approach, with different tranches in the relevant LGAs being assessed at different time points. This approach allowed QRA to manage the volume of houses that might be eligible for VHBB within the total available funding, with more homes coming on board in response to policy adjustments and homeowner RoIs. This staggered approach was efficient in managing the volume of properties that went from initial identification and RoI to, where eligible, being made an offer, moving to settlement and then to demolition of the property and land rezoning. Appendix C, Figure C.1, illustrates the many steps that needed to be coordinated to advance properties through the VHBB intervention. This staggered approach was also effective in managing resource allocation to prioritise those houses most in need of buy-back, within the funding constraints.

Delivery on the demolition of houses and rezoning of land was appropriate to local needs and effectively resourced by QRA funding of contract staff located within LGAs to implement these stages of the work. As they were situated in the local context, these staff were able to work appropriately with demolition contractors, homeowners and the surrounding neighbours in managing vacation of the properties and subsequent demolitions. Local knowledge and presence were important because not all houses in a street were either eligible or, if eligible, accepted the offer at the same time, meaning that some neighbours who saw the houses beside them being vacated were concerned about the potential for squatters and worried about disruption from demolition. Contract staff in LGAs could work sympathetically with homeowners moving out of their homes, and also be sensitive to neighbourhood concerns, as they managed the delivery; "*After settlement, I meet them, go through what we're going to do, when we're going to do it, have they got any issues … and I might have multiple, multiple interactions with them*" – *LGA contractor*.

Evaluation insights and program reflections: The evaluation found that the coordination between QRA and LGAs was efficient and effective in managing a staggered program of buy-back that could address the volume of properties and the variation in LGAs. It was also appropriate to use contractors situated in LGAs to manage local implementation sensitively for homeowners and surrounding neighbourhoods. Buy-back programs are effective when designed to roll out in sequential tranches for efficient administration and when they draw on local staff within LGAs for sensitive implementation of demolition processes.

3.4 Appropriateness of delivery in a recovery context

This section evaluates how appropriately the RHF adapted its delivery model to the complex realities of post-disaster recovery. Establishing and operating a recovery program requires simultaneous design, delivery and continuous adjustment under pressure.[51] To capture these intersecting dynamics, the evaluation is organised into three interrelated areas:

1. Responding to homeowner needs: Assessing how delivery systems evolved from a procedural to a homeowner-centred approach, improving accessibility and responsiveness.
2. Adaptive policy responses: Examining how policy flexibility supported homeowner participation and alignment with changing recovery conditions while also creating new coordination challenges.
3. Supporting the workforce: Evaluating the adequacy of systems and practices that enabled program staff to sustain performance and wellbeing in a demanding environment.

3.4.1 Responding to homeowner needs

Program staff were required to design and operationalise delivery systems while engaging thousands of flood-affected homeowners. The displacement, financial hardship and emotional strain among this population (refer to Section 4) directly shaped the appropriateness of delivery, which needed to account for homeowners in a recovery context and be adapted to sustain progress.

Early delivery processes prioritised accountability through documentation, eligibility verification and approvals. These systems ensured probity and accountability but limited the program's capacity to meet the urgent and emotionally charged conditions of recovery.[52] Staff accounts described an evolution of early delivery through rapid iteration, demonstrating emergent learning and adaptability within program operations.

> *"As much as we can try and prescribe processes and frameworks… you have to be ready for the human element… really thinking about… 'What would this impact be on someone at the end? On a mum and dad? Their kids?'… working backwards from that to design a program, if we had a best-case scenario… We never have enough time to do that, so we figure that out along the way." – Program staff*

As implementation progressed, managers identified that a purely procedural model risked disengaging flood-affected homeowners and subsequently acted to improve the program's responsiveness. Many homeowners required one-on-one assistance to navigate RHF processes, revealing that standardised procedures could not accommodate individual property conditions or homeowner needs. Frontline delivery staff also observed that working with traumatised homeowners required a more empathetic and flexible approach.

> *"Those one-on-ones… [were] hugely time consuming, very technical in nature but really were tailored for that individual need. Again, a cookie cutter approach does not work in this kind of program. So, 'my house is different to your house' is very much the case." – Program staff*

Program staff in Home Raising and Resilient Retrofit developed a structured program of one-on-one engagement sessions to assist homeowners in understanding the fund, including program processes and requirements. The sessions, which were technically focused and embedded within program delivery teams, were centred on case progression, documentation and eligibility clarification. These sessions represented a significant operational innovation that improved homeowner progression and retention, despite the additional resource intensity. Maintaining this function within delivery teams helped preserve clear accountability pathways and ensured that technical guidance remained closely aligned with program requirements.

Although the RHF was not designed around a formal trauma-informed framework, program staff observed that many homeowners were engaging with the fund while experiencing heightened stress and reduced capacity to navigate complex processes.[53] This recognition shaped how delivery teams approached homeowner needs, prompting a more people-centred orientation that focused on clearer explanations and reducing procedural burden where possible. These adaptations align with elements of trauma-aware practice, including providing access to relevant training for program staff, without constituting a formal trauma-informed model. The experience suggests that future programs may benefit from more deliberately embedding trauma-informed principles and training.[54]

> *"[It is] about understanding that the people that are contacting us… have been through a really difficult situation, and so my goal with the team has been to ensure that we treat every matter that comes to us with care and consideration and kindness." – Program staff*

This evaluation indicates that delivery systems designed primarily for accountability and procedural compliance were insufficient to meet property owner needs in isolation and within a recovery context. Appropriateness improved as delivery shifted toward more personalised, empathetic and flexible engagement, suggesting that recovery programs should anticipate the need for intensive, case-based support for a subset of affected households from the outset.

3.4.2 Adaptive policy responses

Alongside operational adaptation, policy flexibility played a critical role in sustaining homeowner participation and improving program alignment with evolving recovery needs. Policy adjustments were progressively introduced to address implementation barriers and support homeowners through extended decision-making periods. These included:

- **Extending delivery timeframes:** The Allowable Time Limit for Home Raising and Resilient Retrofit was progressively extended from the original two-year period to longer timeframes, which, at the time of reporting (December 2025), enabled construction to be completed by 31 March 2027 and grants to be finalised up to 30 June 2027. This improved appropriateness by recognising the protracted nature of post-disaster recovery and construction timeframes.
- **Addressing cost escalation and expanding eligibility:** Funding for Home Raising increased from $100,000 to $150,000 to reflect inflation and rising construction costs, improving equity and program feasibility.

An expansion of Home Raising eligibility was announced in August 2023[55] and formalised through a regulation amendment in December 2023.[56]
In December 2023, an amendment to the Rural and Regional Adjustment Regulation 2011 expanded the Home Raising eligibility to include the Expanded Criteria $150,000 capped[57] intervention, providing capped funding of up to $150,000 for the raising or demolition and rebuild of properties that did not originally meet the Home Raising program eligibility criteria.
Homeowners could also apply for the Expanded Criteria $50,000 capped[58] intervention, which offered funding of up to $50,000 for works to enclosed areas or levels that were not defined as habitable spaces under the program, such as laundries or storage areas beneath dwellings. This funding supported demolition and rebuild of these areas to be above the AFL or the 2021–2022 flood event level, whichever was higher.
These amendments extended support to homeowners who did not initially meet the criteria for Home Raising. Expanded Criteria (including demolition, rebuild or relocate) were introduced to allow eligibility when the existing habitable floor level was below the AFL or the 2022 flood level and when enclosed parts of the home were below these levels and not practical to raise. These amendments broadened the program's reach and homeowners' ability to progress. In this report, except where otherwise specified, the Expanded Criteria categories are included within the primary grouped label of 'Home Raising and Resilient Retrofit'. In this report, except where otherwise specified, the Expanded Criteria categories are included within the primary grouped label of 'Home Raising and Resilient Retrofit'.

- **Enhancing accessibility:** Increased VHBB funding was announced in June 2023 which enabled more households to progress.

These adjustments collectively demonstrated adaptive learning and policy responsiveness but also introduced new coordination challenges. The frequency of changes created communication difficulties for frontline staff and delivery partners, who needed to stay abreast of changes and continuously adapt to successfully convey updates to homeowners. Building contractors and Service Navigators (refer to Section 5) also reported that frequent revisions contributed to inconsistent messaging and perceptions of *"moving goalposts" – Building contractor*. These challenges notwithstanding, flexibility to enable policy adjustments was an important aspect of ensuring that the RHF program was appropriate to evolving homeowners' needs.

While policy flexibility was critical in maintaining program accessibility and equity, frequent updates created coordination and communication strain for delivery partners and frontline staff. Practical mechanisms such as direct distribution lists, tracked guideline versions and dated change logs would have allowed for greater transparency and alignment during periods of policy adjustment.

3.4.3 Supporting the workforce

Adaptive policy and process change improved the appropriateness of RHF delivery but also exposed the emotional toll of recovery-facing work. Previous research demonstrates that sustained exposure to homeowner trauma, combined with the pressures of rapid implementation, can place significant demands on frontline staff.[59] Program leaders in both government agencies demonstrated responsiveness to these challenges by introducing wellbeing support and informal debrief mechanisms beyond existing available Queensland Government support programs available to employees,[60] signalling awareness of the need for staff care; "*The pace and scale of what we were managing, and the complexity of what we were managing... I think that's exhausted us all*" *– Program staff*.

These data indicated that while the RHF matured into a more people-centred delivery model, the absence of early wellbeing frameworks left frontline staff vulnerable to potential burnout. Subsequent initiatives, such as professional boundaries sessions demonstrated adaptive learning but also highlighted the lack of structured wellbeing planning. This highlights the need for trauma-informed design and formalised staff wellbeing systems

from the outset, ensuring that delivery staff can sustain performance and care over extended engagement periods.

These findings highlight that recovery-facing delivery places sustained emotional demands on staff. Embedding trauma-aware delivery principles and formalised wellbeing frameworks at program inception would support staff sustainability and delivery quality over extended recovery periods.

Evaluation insights and program reflections: The evaluation found that the evolution of delivery from a procedural model to a homeowner-centred approach, including policy adaptations, was appropriate in improving accessibility within a recovery context, albeit that the updating created pressures in communication and on staff wellbeing. **Embedding structured communication protocols, trauma-informed engagement and workforce wellbeing frameworks at inception supports sustained delivery quality and workforce resilience.**

3.5 Conclusions on program set-up

Overall, evaluation of the program set-up found that the RHF was effectively established despite the constraints of starting anew with limited databases and procedures. Effectiveness was demonstrated through the rapid development of new eligibility and assessment systems; efficiency increased as interagency coordination improved through shared platforms and governance mechanisms; and appropriateness strengthened as delivery shifted toward the human realities of recovery, reflected in policy flexibility and increased support for both homeowners and program staff. The evaluation demonstrates that while starting-anew programs can achieve substantial outcomes under pressure, early systemisation of data, governance, communication, and wellbeing frameworks would further enhance delivery quality and resilience.

4 An individual approach to resilience

As set out in the evaluative framework in Section 2.1, resilient housing programs face a basic design choice between collective and individual approaches. Collective approaches typically zone whole areas for similar interventions, which enable consistent, relatively undifferentiated roll out. Individual approaches target properties and households one by one, which can be helpful in socialising homeowners to a novel program, and also support differentiation in implementation where there is significant variation in housing stock, hazard exposure, and the socioeconomic and demographic characteristics of affected residents.[61]

The RHF adopted an individual approach that targeted homeowners who registered through a voluntary process and offered interventions that reflected the specific combination of inundation, building typology and eligibility criteria at each property. This design allowed the RHF to:

- establish a detailed database from the RoIs, which formed the basis for assessment according to program guidelines
- tailor implementation where variation in individual housing stock, flood exposure and homeowner circumstances meant that an area-based approach would not have been appropriate.

This section evaluates how that individual approach performed in practice for the 6,537 homeowners who completed a RoI. It examines variation in pathways and outcomes by focusing on two linked sources of difference:

1. ***Property characteristics*** – the severity of inundation, flood risk and building typology which shaped program eligibility and the types of interventions offered (Section 4.1)
2. ***Individual homeowners*** – the different characteristics, capacities, and perceptions of homeowners and their associated challenges in responding to the program (Section 4.2).

Each of these subsections begins with a table that summarises the evaluative focus, evaluation insights and program reflections arising from the analysis. Section 4 concludes by synthesising what these findings reveal about the strengths and limits of an individual, voluntary approach to resilience within the RHF.

To support this section of the evaluation and provide a useful heuristic for evaluating other voluntary and individual programs, Figure 4.1 depicts the combination of property and individual characteristics that shape variation in homeowner experiences and outcomes of a housing resilience policy. The horizontal axis A features property characteristics, being the severity of inundation levels, flood risk and complexity of the building typology in terms of variation in building types. These property characteristics shape the eligibility of those who register interest in a program (refer to Section 1 for eligibility for the RHF program). The vertical axis B represents the challenges of individual homeowners in responding to a program, which shape how they exercise choices within their eligibility. These challenges include financial constraints, reduced social support, limited emotional capacity, and circumstantial life events that can make engagement with the program more difficult.[62] The diagonal arrow C depicts the issues introduced by greater inundation severity and property complexity when combined with compounding challenges of the homeowner in responding. Existing studies show that cases in the top right quadrant require greater mobilisation efforts, potentially provided by additional support services, if they are to receive an experience that is substantively equitable[63] to other eligible homeowners. As explained in Section 4.2, homeowners' challenges in taking up the RHF program were consistent with existing literature and the activities associated with mobilisation to address these challenges are examined in Section 5.

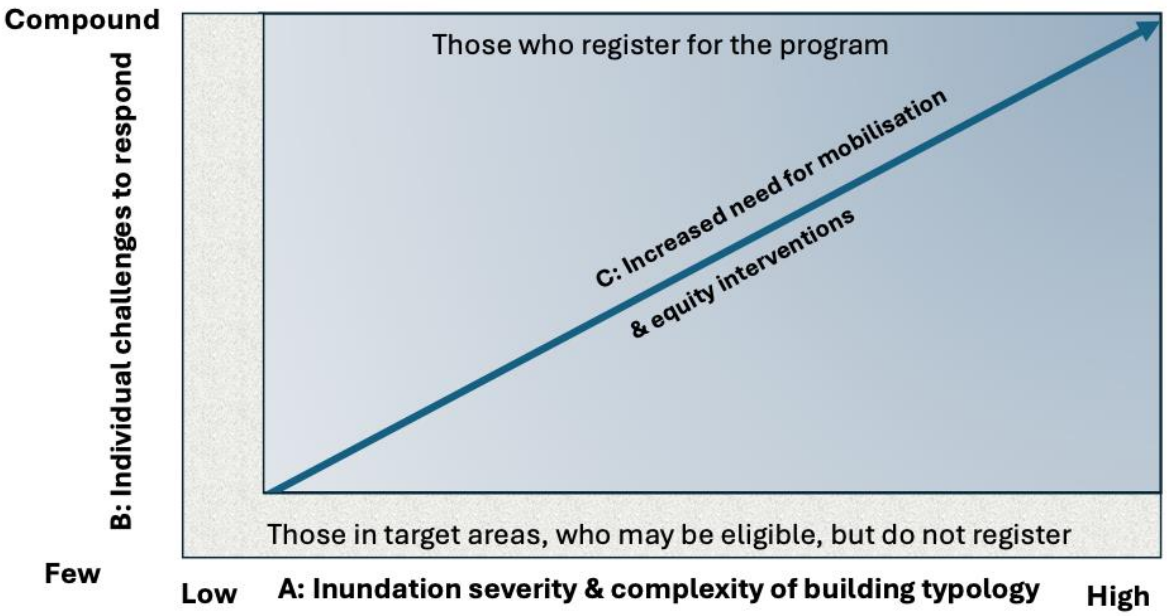


FIGURE 4.1: PROPERTY AND INDIVIDUAL SOURCES OF VARIATION IN PROGRAM EXPERIENCE

Key findings: The RHF successfully reached many homeowners, with most of those who completed an intervention expressing satisfaction with their outcomes and an improved sense of resilience to flood. As a voluntary program, with significant variation in inundation levels, housing stock and demographic characteristics of homeowners, progress with any specific intervention was shaped by homeowners' capacities and specific challenges in responding to the offers for which they were eligible. A core feature of this program was respect for individuals' choices and values in relation to any change in their housing situation. Consideration of how different challenges shape those choices, and what forms of targeted support are needed to enable informed choices, would be beneficial. Section 5 examines those support mechanisms in more detail.

4.1 Property characteristics shaped variation in recommendations

This section addresses the horizontal axis (A) on Figure 4.1, evaluating variation in RHF program eligibility decisions based on severity of inundation, flood risk and building typology. This section shows how those criteria were applied across the diversity of housing stock for the 6,537 homeowners who completed a RoI for the program, what resilient interventions were offered based on eligibility, and how the offer compared with the intervention ultimately chosen. These results have been mapped to inundation levels and building typologies to establish patterns in the offers made and pathways taken by homeowners who received an offer.

The evaluative focus, evaluation insights and program reflections arising from this section are summarised in Table 4.1.

TABLE 4.1: SUMMATIVE EVALUATION OF VARIATION IN PROPERTY CHARACTERISTICS

Evaluative focus	Evaluation insights	Program reflections
Effectiveness of using inundation levels as indicators for RoI and to support assessment of eligibility	Homes with deeper inundation were more likely to register and progress to an intervention, which indicates that those with the greatest physical impact were able to enter and benefit from the program. This pattern shows that inundation was an effective indicator for RoI and criterion for establishing eligibility.	Where available and accurate, it would be useful to use existing flood mapping and local knowledge to anticipate likely areas for intervention and estimate demand for program types before an event. This will help with resource planning and support timely delivery, without replacing individual eligibility assessment.
Appropriateness of resilience interventions based on building type and inundation severity	Not all houses were suited to every intervention. Variation in levels of inundation and in building types shaped appropriate application of eligibility criteria, ensuring different interventions were appropriate to the building typology.	Existing council and valuation data on housing types, combined with flood maps, could be used to profile exposed areas in advance to support targeted planning of different types of resilience interventions.
Enabling variation in homeowner decision making as appropriate to voluntary program	Property journeys did not always follow recommendation trajectories, even when recommendations represented the most resilient option available for physical flood inundation. These variations in property journeys were appropriate to the voluntary nature of the RHF program, enabling homeowner decision making.	Voluntary programs should recognise that homeowners make decisions within both eligibility requirements and personal circumstances. Policies can support choice by ensuring that the option offered through assessment is understood, while also allowing homeowners to pursue a different eligible pathway if it better suits their circumstances.

4.1.1 Understanding eligibility

As described in Section 1.1, to be eligible for the RHF, a home had to have experienced inundation to the building envelope during one of the relevant 2021-22 Southern Queensland Flood events. This section outlines eligibility considerations for those properties. Once eligibility was ascertained, a homeowner could apply for one of the intervention programs for the property – VHBB, Home Raising, or Resilient Retrofit.

Severity of inundation, building type and layout were the key determinants in identifying eligibility for the intervention programs. Two distinct flood levels were considered. First, the 2022 flood level, which refers to the level of flooding experienced during the 2021-22 flood events. Second, the AFL,[64] which refers to the minimum elevation specified by the local council for a habitable floor within a residential home. The AFL is the "design" flood level used for planning approval and in most instances, albeit not universally, was higher than the 2022 flood level. Floor level surveys were conducted as part of the Home Assessment process (refer to Section 3.1) to determine a floor level's flood risk and therefore the eligibility for the Home Raising and Resilient Retrofit interventions.

For a home to be eligible for Resilient Retrofit, it simply needed to meet the criteria for inclusion in the RHF program. However, the resilience strategies recommended to a homeowner depended on whether the floor level of a habitable room being considered was above or below the greater of the AFL and 2022 flood level, and whether the room was classified as livable. In simple terms, if a home was eligible for the RHF program, it was eligible for some Resilient Retrofit resilience strategies. The type of building was not considered for Resilient Retrofit eligibility.

For a home to be eligible for Home Raising, it needed to meet three criteria: 1) it had to be of a building type that was considered practical to raise, 2) the habitable (as defined by the National Construction Code)[65] floor level was below the 2022 flood level and 3) the habitable floor level was below the AFL. Homes that met these criteria were eligible for the Home Raising intervention up to a limit of $150,000 (increased from $100,000), plus a co-contribution to the cost of raising beyond that level. If a home only met one of criteria 2 and 3 (irrespective of whether it met criterion 1), it was eligible for the Expanded Criteria $150,000 capped[66] intervention, where the homeowner could access up to a capped amount of $150,000 to raise, relocate or demolish and rebuild habitable floor areas above the higher of the AFL or 2022 flood level. Homeowners could also apply for Expanded Criteria $50,000 capped[67] funding to raise enclosed parts of a house not deemed to be habitable (e.g., laundry) above the higher of the AFL or 2022 flood level. The most practical type of home to raise (and therefore meet criterion 1) was a single storey home on stumps. Slab-on-ground homes were generally deemed to be impractical to raise and therefore not to satisfy criterion 1.

Eligibility for the VHBB intervention was more complex. VHBB prioritisation was based on applicants' extent of damage in the 2021-22 Southern Queensland Floods, flood risk exposure, and socioeconomic factors. Homeowner's properties were assessed by RHF Inspection Officers, and a Home Assessment Report was produced. When the program was launched, it was expected that the relevant LGAs would undertake a detailed assessment of flood risk, allowing prioritisation of properties and funds under the VHBB intervention program. This was difficult to achieve in practice, as the process to identify properties, criteria list, and flood data provided by each LGA was varied and inconsistent. In response, the VHBB allowed for different prioritisation criteria including an economic assessment, flood hazard classification, hydraulic classification, magnitude of the event, isolation risk, relevant precinct buy-back plan, and any relevant socioeconomic factors. In cases where the LGA did not have access to such information, the level of above floor inundation during the 2022 (and any other known) event and the location of the property in the Queensland Floodplain Assessment Overlay[68] 1% Annual Exceedance Probability (AEP) extent were considered.

VHBB home demolition, April 2023 – Photo courtesy of QRA

4.1.2 Effectiveness of using inundation levels as indicators for Registration of Interest and to support assessment of eligibility

To enter the RHF program, homeowners submitted a RoI. Each home meeting the program-level eligibility criteria then underwent a Home Assessment to determine eligibility for a specific intervention, with the outcome communicated to the homeowner through recommendations in a Home Assessment Report. Based on the data provided to the research team, reflecting program status of VHBB on 8 November 2024 and Home Raising and Resilient Retrofit interventions on 3 February 2025, 6,537 homeowner RoIs were received, with the breakdown by LGA depicted in Figure 4.2.

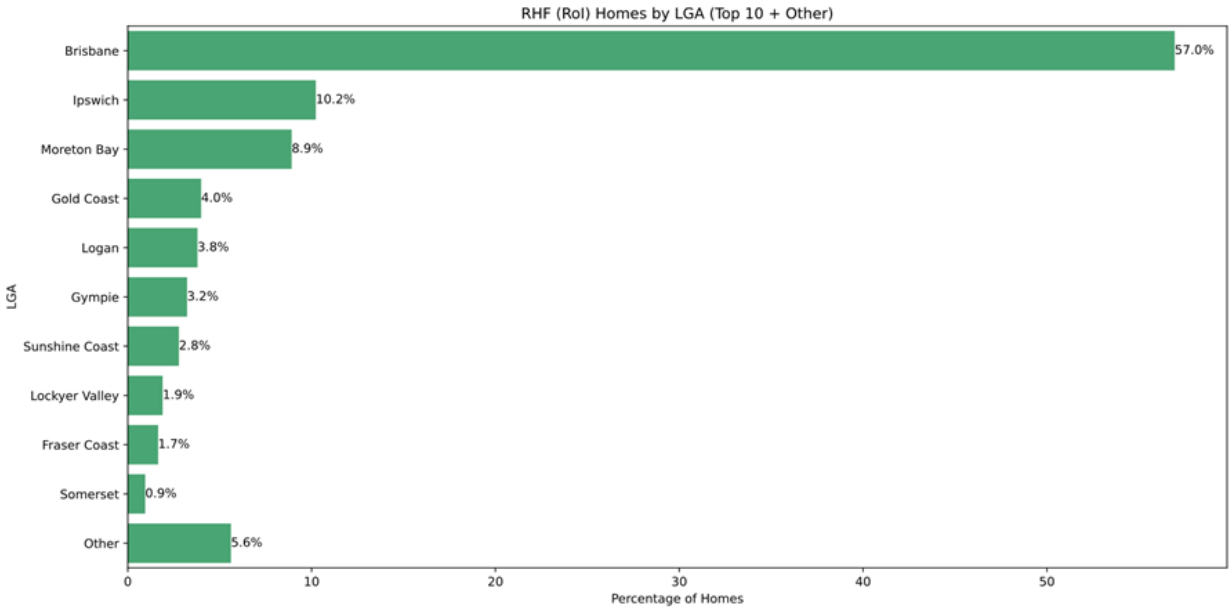


FIGURE 4.2: DISTRIBUTION OF ROIS FOR THE RHF BY LGA

Within these LGAs, interest in the RHF was concentrated in suburbs with higher levels of inundation. Figure 4.3 illustrates this pattern across the top 20 suburbs up to an inundation level exceeding 2 metres. Analysis of inundation level combined with analysis of the proportion of registrants by intervention indicates that uptake increased with higher inundation depth (refer to also Appendix D for further analysis of this relationship).

The primary consideration for program eligibility was the relationship between the floor level in a home (livable floor level for Resilient Retrofit and habitable floor level for Home Raising), the 2022 flood level, and the AFL (refer to Section 4.1.1). While AFL and floor level information were not uniformly available for all homes that registered interest or entered one of the interventions, the level of inundation experienced during the 2021-22 Southern Queensland Floods was measured by assessors as part of the Home Assessment process, including a floor level survey. Although only examining inundation for the 2021-22 Southern Queensland Floods did not provide a full picture of eligibility, it did allow for an examination of which areas were most severely inundated.

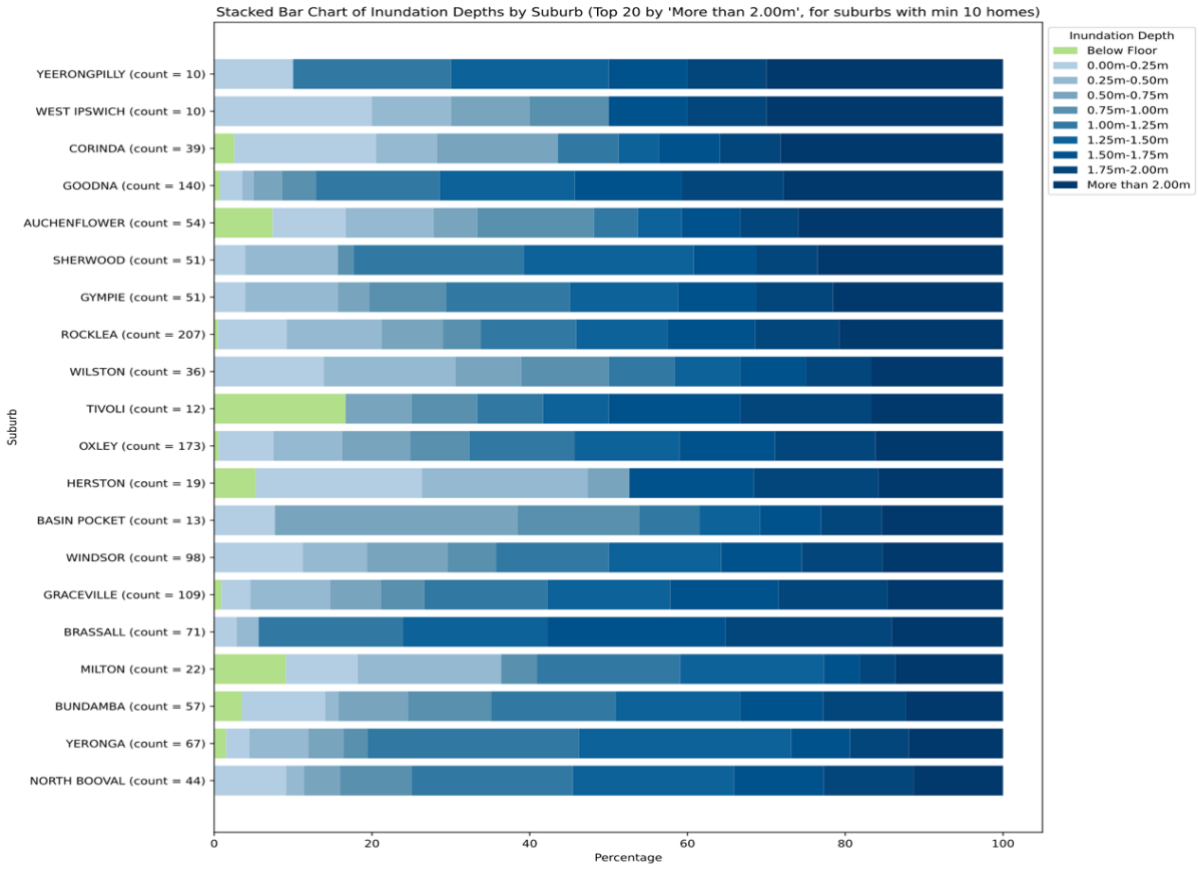


FIGURE 4.3: TOP 20 SUBURBS FOR ROI, WITH DISTRIBUTION OF INUNDATION LEVELS FOR THOSE PROPERTIES

Evaluation insights and program reflections: The evaluation found that homes with deeper inundation were more likely to register and progress to an intervention, which indicates that those with the greatest physical impact were able to enter and benefit from the program. This pattern shows that inundation was an effective indicator for RoI and criterion for establishing eligibility. It would be useful to use existing flood mapping and local knowledge to anticipate likely intervention pathways and estimate demand for program types before an event. This will help with resource planning and support timely delivery, without replacing individual eligibility assessment.

4.1.3 Appropriateness of resilience interventions based on building type and inundation severity

While the prior section addresses inundation severity as the first element of Figure 4.1, axis A, the second element concerns the wide variation in the design and structure of houses eligible for the RHF. The term *complexity of building typology* is used to describe this variation, referring to the different structural characteristics, construction styles and layouts of homes across participating LGAs. Housing types were not uniform, and this variation affected both the damage experienced during the 2021-22 flood events and the eligibility of homes for different interventions.

Information on the types of building either registering interest or entering one of the intervention programs was collected during the Home Assessment process. To simplify analysis, the homes were re-classified based on two aspects that are important to the damage a home may experience during flooding and their program eligibility. The first is the type of floor/foundation of a home, and the second is the type of wall/framing that is used. The foundation classes are either elevated, slab-on-ground, or suspended slab. Wall framing classes

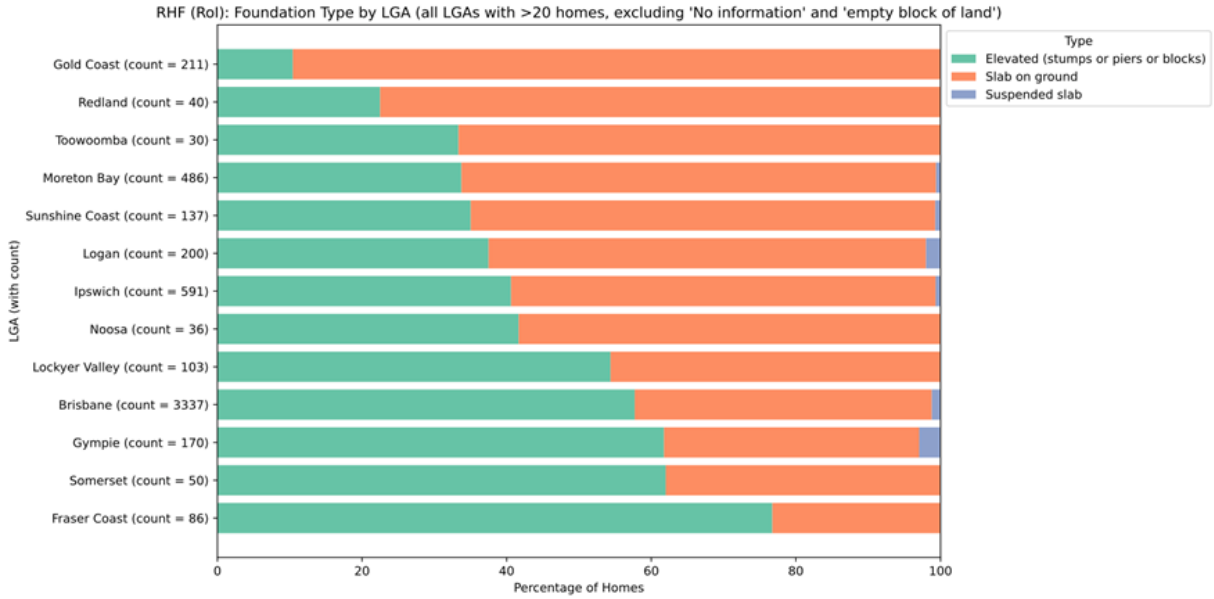
include timber frame, brick veneer, and double brick or blocks. The two dominant combinations of housing that registered interest and progressed through the program were elevated homes with timber framing (e.g., a traditional Queenslander) and slab-on-ground with brick veneer wall system.

Example of an elevated home with timber framing – Photo courtesy of Adobe Stock and QRA

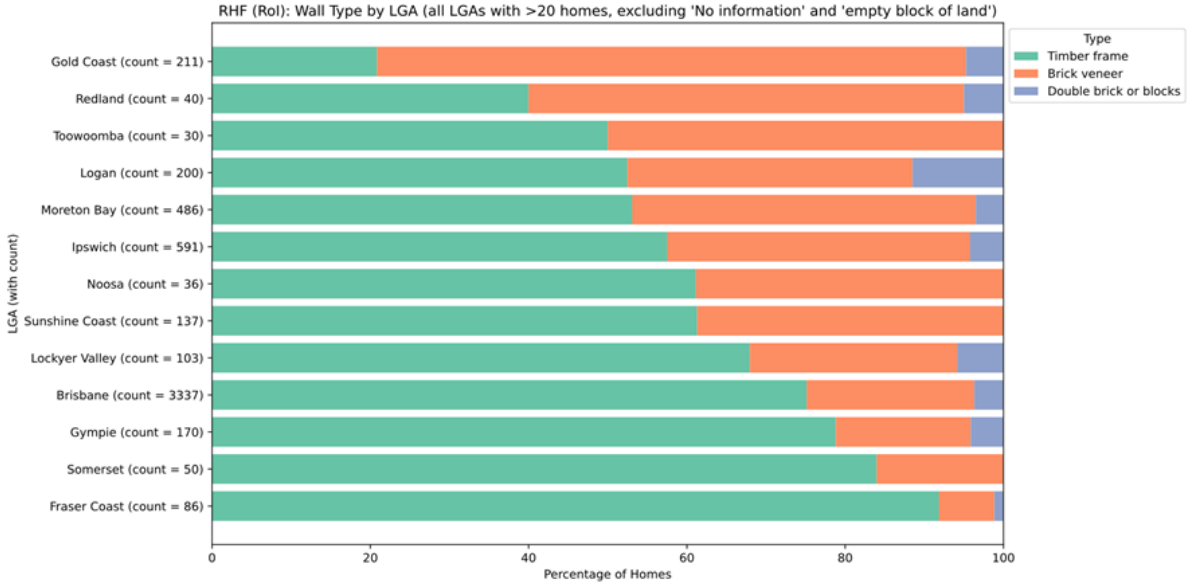
Example of a slab-on-ground with brick veneer wall system – Photo courtesy of Adobe Stock and QRA

When considering the eligibility of these types of homes for the three main interventions, an elevated timber framed house is practical to lift, so could be eligible for all interventions. A brick veneer slab-on-ground home, however, is very difficult to raise, and would unlikely be eligible for the Home Raising intervention. The Expanded Criteria $50,000 and $100,000 ($150,000) capped[69] interventions were potentially available to homeowners in these dwellings because these criteria included the option to demolish and rebuild elsewhere. However, for slab-on-ground brick veneer houses, the cost of lifting or demolishing and rebuilding even part of these homes would be high and not likely to be fully covered by the available funds.

To demonstrate the variation in property types that contribute to the complex building typology of the RHF, Figure 4.4a shows the percentage of RoIs in each LGA with the different foundation types, ordered from top to bottom by increasing percentage of elevated houses. Figure 4.4b shows a similar image, but based on the wall systems, ordered by an increasing percentage of timber framed and clad homes. Note that in both figures the homes with no information on building type have been removed.



(A) PERCENTAGE OF BUILDINGS IN LGAS WITH >20 ROIS BASED ON FOUNDATION TYPE



(B) PERCENTAGE OF BUILDINGS IN LGAS WITH >20 ROIS BASED ON WALL TYPE

FIGURE 4.4: STRUCTURAL VARIATION IN FOUNDATION AND WALL TYPE ON HOMES IN WHICH ROIS WERE RECEIVED BY LGA

Both figures show the complexity arising from variation in home types across the program regions. For example, Gold Coast homes registering interest in the program were predominantly slab-on-ground brick veneer dwellings, whereas in the LGAs of Brisbane, Somerset, Fraser Coast and Gympie, the majority of homes were elevated with timber clad wall systems. The reasons for the different house types in different regions may vary, but given housing construction styles (and regulation/planning) have changed over time, the prevailing practice at the time of home (or community) construction might be a prominent driver of this variation. These variations within and across LGAs illustrate how building typology shaped recommendations offered.

Severity of inundation and building typology shaped recommendations

The relationship between inundation level and the intervention entered is now explored. Figure 4.5 shows the percentage of homes demarcated by inundation level for each intervention. Homes that were offered VHBB experienced proportionally higher levels of inundation than homes in any of the other interventions. For example, nearly 20% of VHBB homes had inundation greater than 2 metres, while only about 5% of homes in all but the Expanded Criteria $50,000 capped intervention had this level of inundation. Similarly, around 60% of the VHBB homes had inundation greater than 1 metre, while this number was between 30-40% for the other interventions. Since threshold-based eligibility criteria were used for the program (i.e., flood levels only needed to exceed the floor level, with no condition on the extent of exceedance) – and because other factors were considered for eligibility and for people's decisions about which intervention to enter (refer Section 4.2) – inundation levels ranged from only just exceeding the floor level to several metres across the different interventions. A very similar distribution of inundation levels was observed for Resilient Retrofit, Home Raising and Expanded Criteria $150,000 capped interventions, suggesting no substantial difference in the level of inundation that people entering these interventions experienced. A larger percentage of homes with low levels of inundation were, however, observed for the Expanded Criteria $50,000 capped intervention.

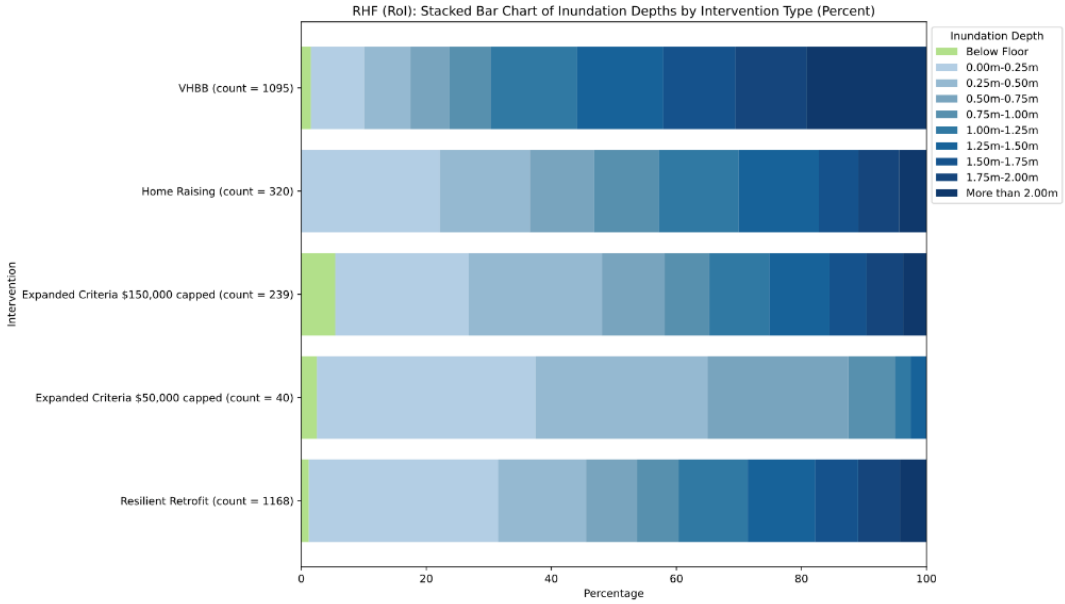
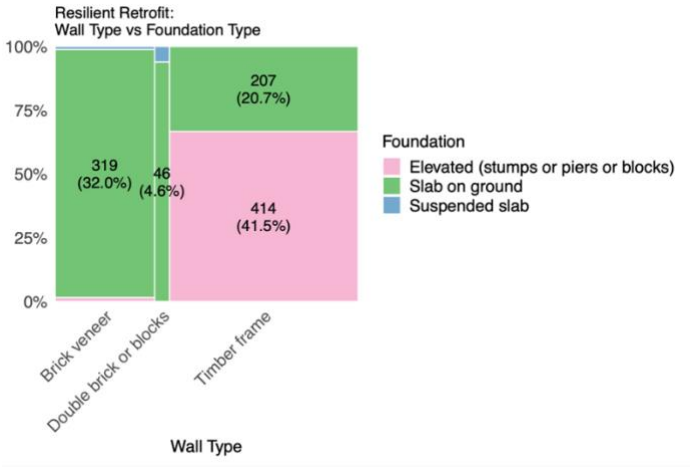
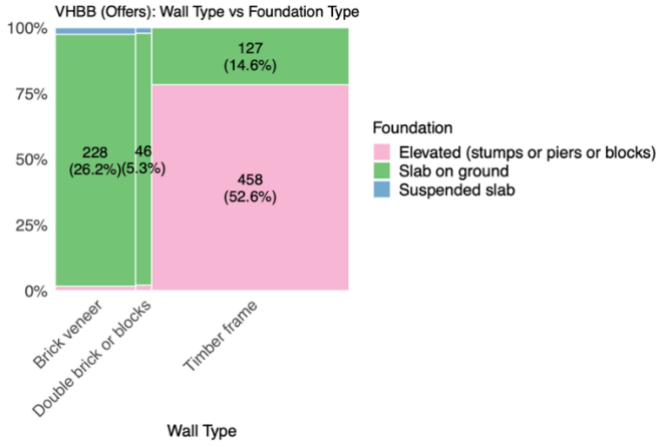


FIGURE 4.5: PROPORTION OF HOMES IN EACH INTERVENTION, DEMARCATED BY INUNDATION LEVEL

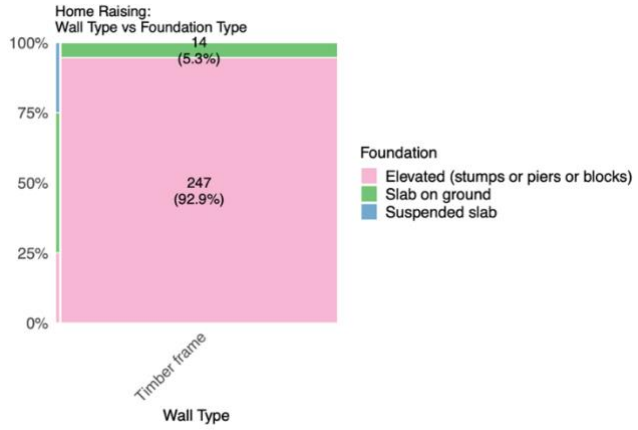
Figure 4.6 depicts the proportion of homes in each intervention based on the foundation/floor and wall classifications introduced earlier. Very little difference was observed in the types of structures for the Resilient Retrofit (4.6a) and VHBB interventions (4.6b). This is largely expected given eligibility rules for these interventions did not consider the type of structure. However, when looking at the Home Raising or Expanded Criteria interventions (4.6c-e), there was a significantly higher proportion of homes with elevated flooring systems and timber frame/clad walling systems. As expected, given eligibility requirements, the Home Raising intervention (4.6c) included almost exclusively this type of home. For the two Expanded Criteria interventions (4.6 d, e), some slab-on-ground and suspended slab homes existed, but the number of homes with anything other than a timber wall system remained low. This is to be expected given the difficulty and cost to lift, or demolish and then rebuild at an elevated level, brick facades. These analyses clarify that the complexity of the building typology was addressed effectively and appropriately in offering suitable interventions according to property type. Further confirmatory analyses of wall type, foundation type, and inundation depth in relation to intervention are included in Appendix E.



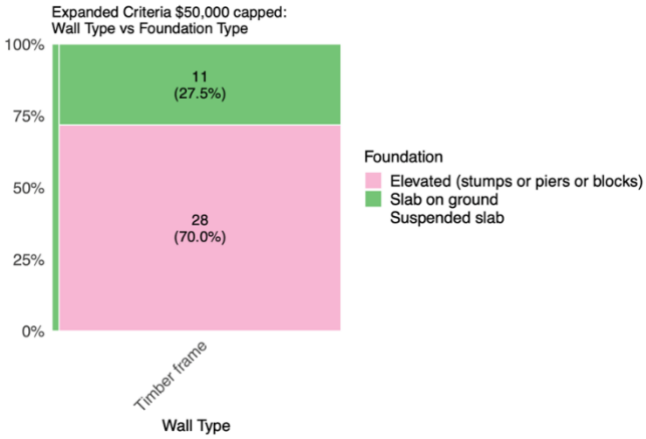
(A) RESILIENT RETROFIT WALL TYPE VS. FOUNDATION TYPE



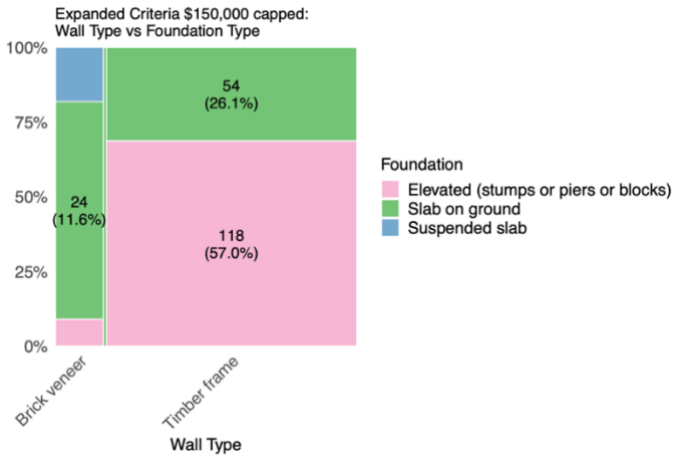
(B) VHBB WALL TYPE VS. FOUNDATION TYPE



(C) HOME RAISING WALL TYPE VS. FOUNDATION TYPE



(D) EXPANDED CRITERIA $50,000 CAPPED WALL TYPE VS. FOUNDATION TYPE



(E) EXPANDED CRITERIA $150,000 CAPPED WALL TYPE VS. FOUNDATION TYPE

FIGURE 4.6: SPINE PLOTS SHOWING THE STRUCTURAL CHARACTERISTICS OF BUILDINGS IN EACH INTERVENTION[i]

[i] In Figure 4.6, and other similar charts throughout the report and appendices, areas are proportional to the counts, so that larger blocks mean higher representativity. While the horizontal axis is labelled, the "vertical" dimension is shown as colours equating to the legend, rather than an axis.

Evaluation insights and program reflections: Not all houses were suited to every intervention. Variation in level of inundation and in building types shaped appropriate application of eligibility criteria, ensuring different interventions were appropriate to the building typology. Existing council and valuation data on housing types, combined with flood maps, could be used to profile exposed areas in advance to support targeted planning of different types of resilience interventions.

4.1.4 Enabling variation in homeowner decision making as appropriate to voluntary program

Following RoI and Home Assessment, property owners received offers for eligible interventions. These interventions can be understood, conceptually, as a hierarchy of resilience options in relation to physical flood inundation, where homes with the most severe exposure are offered VHBB because that is the option that most directly reduces future flood exposure.[70] This is followed by Home Raising, where the structural features of the property permit, which may be effective in reducing future flood exposure, or Resilient Retrofit where Home Raising is not feasible for the structure of the property or not warranted by the level of inundation.[71] However, analysis of homeowner pathways shows that, while these considerations shaped initial recommendations, the actual intervention chosen varied from the recommendation.

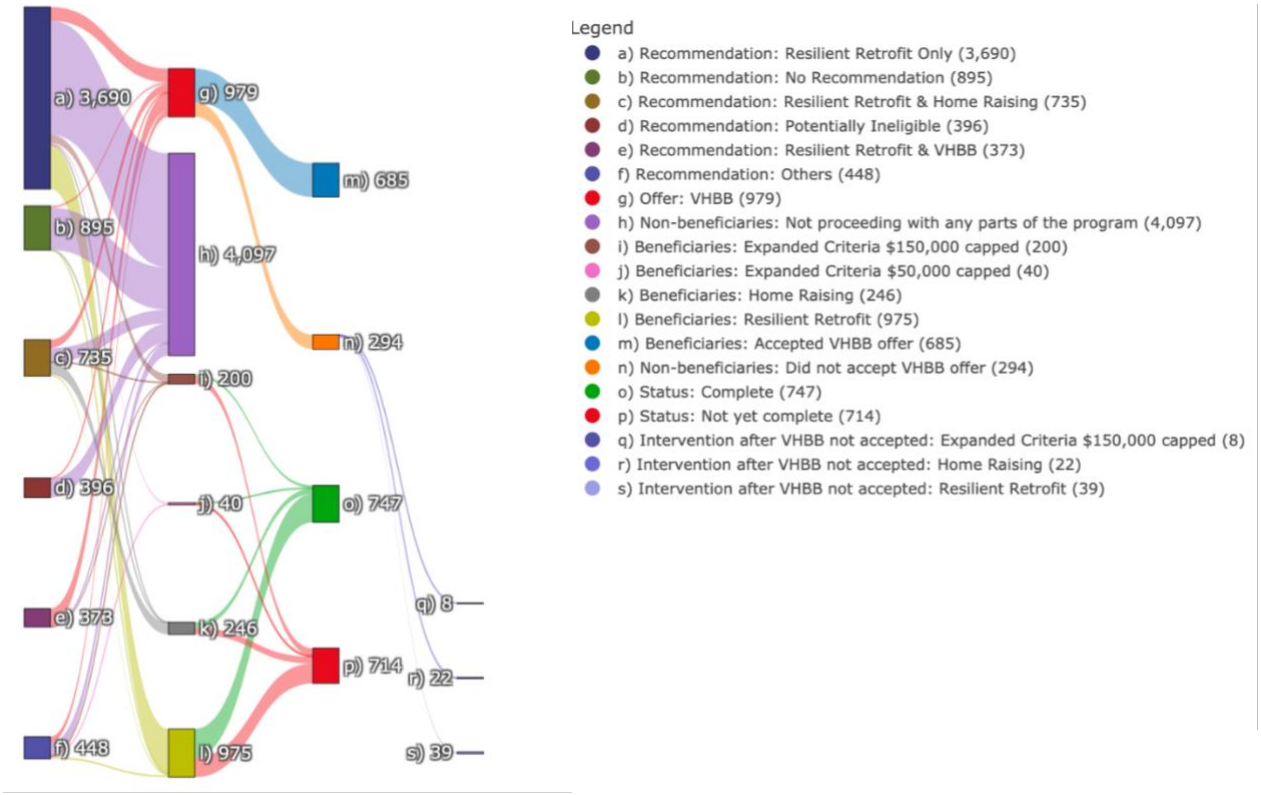


FIGURE 4.7: PROGRESSION OF PARTICIPANTS THROUGH THE RHF PROGRAM[i]

Figure 4.7 shows the state of participant progression as of February 2025, tracing the variation in paths from the original recommendations. The first column on the left (a-f) represents the number of participants who received each of the different potential recommendations. The second column (g-l) shows the intervention the

[i] 'No Recommendation' indicates participants that left the program after RoI, while 'Others' can mean some variation such as Retrospective Home Raising, or Resilient Retrofit. 'Beneficiaries' refer to those homes that received benefits from the RHF program through either VHBB, Home Raising, Resilient Retrofit, or Expanded Criteria. Categories q), r), and s) correspond to the same interventions as i), k), and l), respectively, distinguishable only be having first been in the VHBB intervention.

homeowner moved into following a recommendation. The third (m-p) and fourth columns (q, r, s) show where the homeowner was in the program at the time data was supplied to the research team. The size of blocks and bands are (vertically) proportional to the number of properties present – or moving – between the blocks while study of the bands depicts where (to and from) properties flow.

Figure 4.7 shows that in more than 50% of cases, homeowners were recommended the Resilient Retrofit intervention. However, it is evident from the second column that homeowners did not always end up pursuing the initial recommendation. For example, those who ended up in the VHBB intervention are shown to come from all initial recommendation categories, including those having an initial Resilient Retrofit recommendation. To some extent, these shifts were due to policy adjustments, which enabled some recommendations to be altered, albeit that most shifts were due to homeowners' choices about which intervention they most valued, which is discussed further below. Non-progression with a recommendation represents one important aspect of these choices, as only around 37% (2,441) of those who initially registered interest in the program ended up progressing beyond the RoI stage. Of these, 979 (40% of the remainder, g in Figure 4.7) progressed into the VHBB intervention, 976 (40%, l) progressed into the Resilient Retrofit intervention, and the remaining 486 (20%, i, j, k) progressed into one of the Home Raising interventions.

The third and fourth columns in Figure 4.7 show where properties sat in progression through the program at the time of data supply on 3 July 2025.[i] At this time, the VHBB intervention was effectively complete, with 685 homes (70% of those entering the VHBB intervention, m in Figure 4.7) successfully bought back. This means that 30% of those homes entering the VHBB intervention did not accept the offer, with about three-quarters of these leaving the RHF completely, and about one-quarter re-entering either the Home Raising or Resilient Retrofit interventions (q, r, s in Figure 4.7). While it is not always clear why a homeowner did not accept the VHBB offer, additional influencing factors are explored in the following section. About one-sixth (5% of total) did not proceed because they sold their homes in the meantime. The Home Raising and Resilient Retrofit interventions were still in progress at the time of data supply, and only about half of these participants had completed their resilience works (o in Figure 4.7). The remaining half were either still active in their chosen intervention or had exited the program.

Evaluation insights and program reflections: Property journeys did not always follow recommendation trajectories, even when recommendations represented the most resilient option available for physical flood inundation. These variations in property journeys were appropriate to the voluntary nature of the RHF program, enabling homeowner decision making. **Voluntary programs should recognise that homeowners make decisions within both eligibility requirements and personal circumstances. Policies can support choice by ensuring that the option offered through assessment is understood, while also allowing homeowners to pursue a different eligible pathway if it better suits their circumstances.**

[i] Data provided to the research team reflect VHBB status on 8 November 2024 and other interventions on 3 February 2025

4.2 Individual differences shaped variation in homeowner journeys

Homeowner choice over the resilience intervention is an appropriate feature of a voluntary program.[72] This section examines axis B of Figure 4.1, by evaluating how individual differences shaped variation in homeowners' pathways through the RHF program. Homeowners take the option most likely to deliver physical resilience from flood given all the information they have at the time and their personal circumstances. As Figure 4.7 showed, about one-quarter of beneficiaries (25.4%, 563 of 2,215) ultimately chose an intervention that differed from the initial recommendation.

Informed by existing research into individual and group post-disaster resilience capabilities,[73] this section draws on the full corpus of inundation, property, survey and interview data to explain factors that shaped variation in homeowners' choices, including:

1. Demographic factors
2. Financial, social and emotional capacities, which are shaped by their life experiences and existing vulnerabilities
3. Challenges in responding to the program, which are characterised as few, moderate or compounding;
4. Complexities with Community Title properties in the VHBB
5. Variation in individual perceptions of value and satisfaction with the program.

Together, these elements explain why choices varied, and why homeowners did not always follow the recommendation deemed most physically resilient. The sections below explain why the variation in progression illustrated in Figure 4.7 reflects not only eligibility and hazard exposure but also individual circumstances, priorities, and capacities to engage. Table 4.2 summarises the evaluation insights and program reflections developed from this analysis.

TABLE 4.2: SUMMATIVE EVALUATION OF INDIVIDUAL DIFFERENCES IN HOMEOWNER JOURNEYS

Evaluation focus	Evaluation insights	Program reflections
Appropriateness of program delivery for homeowners with differing financial, social, and emotional capacities	Homeowners' individual capacities were combined with and informed by their life experiences and existing vulnerabilities, which profoundly influenced their experiences of the program.	Homeowners with lower financial, social, or emotional capacities may require additional support alongside property considerations to improve access and progression. Tailored guidance and practical assistance can enhance appropriateness and help ensure that participation remains equitable within a voluntary program.
Variation in individual's challenges to respond shaped their experiences of the RHF program	Individual homeowners faced few, moderate, or compounding challenges, based on their individual capacities and circumstances, which impacted their experience of and ability to respond to the program.	Homeowners' challenges can be assessed at the point of registration or early engagement. Recognising these challenges can enable program staff to more effectively appraise the support that such homeowners may need to progress through a voluntary program.

Challenges of progressing Community Title properties through VHBB	Community Title properties were not easily compatible with an individually oriented voluntary buy-back program, because all owners needed to agree, yet they did not all have the same capacity to respond to the offer. Note that this insight arises from two Community Title properties observed in the program.	Specific policies may need to be designed that can cater to the combination of individual and Community Title ownership of property.
Homeowner variation shaped perceived value and satisfaction in a voluntary program	Homeowners' perceptions of value and satisfaction did not always align with physical resilience, and were linked with completion and progress stage, timing, and concepts of equity and fairness.	Experience and satisfaction prior to completion may be improved where homeowners perceive that their varied challenges, needs, and values are being addressed through timely and transparent processes.

4.2.1 Appropriateness of program delivery for homeowners with differing financial, social, and emotional capacities

Multiple factors influenced the choices homeowners made. Appendix F presents the findings from econometric modelling; a multinomial choice model approach[74] where the property journeys illustrated in Figure 4.7 are considered. These findings need to be interpreted with some caution due to limitations in the dataset, as explained in the Appendix. However, they provide some important insights that confirm the above findings on how inundation level and property type shaped eligibility and recommendation offer but were met with variation in the choices people made on those offers. Additionally, suburb-level demographics applied in the modelling provided indicators about how individual factors such as age and economic capacity might have shaped choices. Building from these analyses, and grounded in the literature, the following sections draw on survey and interview data to better interpret these patterns in property journeys through the lens of homeowner capacities, challenges and perceptions.

Homeowners had individual financial, social and emotional capacities which shaped their responses to the RHF. These capacities did not occur in isolation but were informed by and combined with their life experiences and skills, and existing vulnerabilities. These capacities, which are documented in existing research,[75] and which influenced homeowner progress through the RHF program, are depicted in Figure 4.8. As outlined in Section 2.4, this evaluation does not consider the role of, or participants' engagement with, other DRFA programs which may have supported them in post-disaster recovery such as the Accommodation Package (Category C) or Personal Hardship Assistance Scheme (Category A).[76]

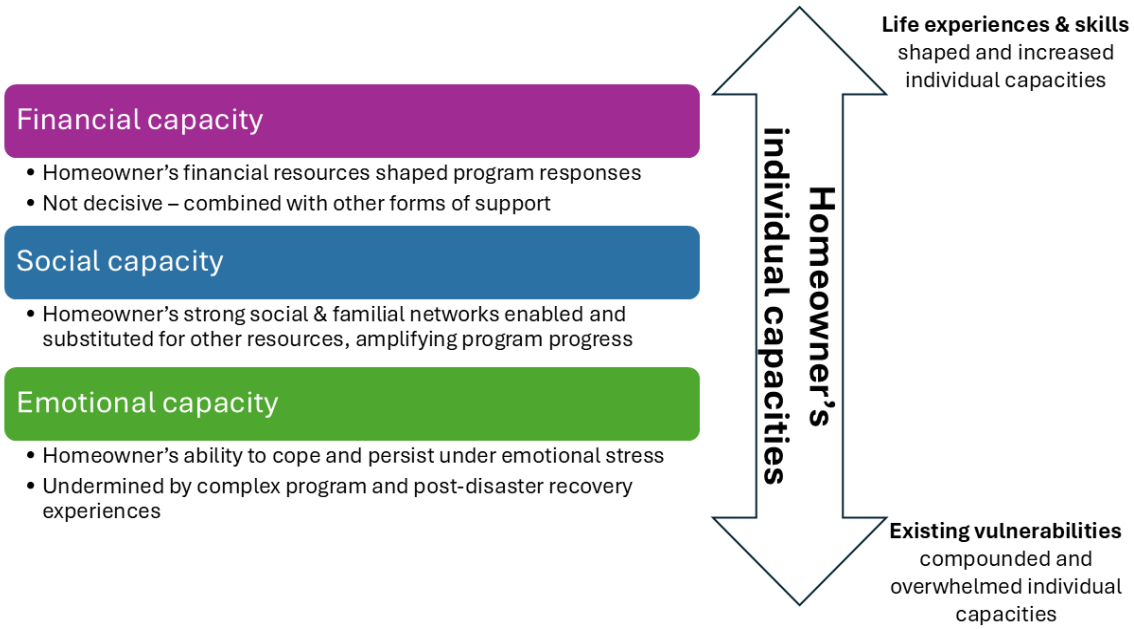


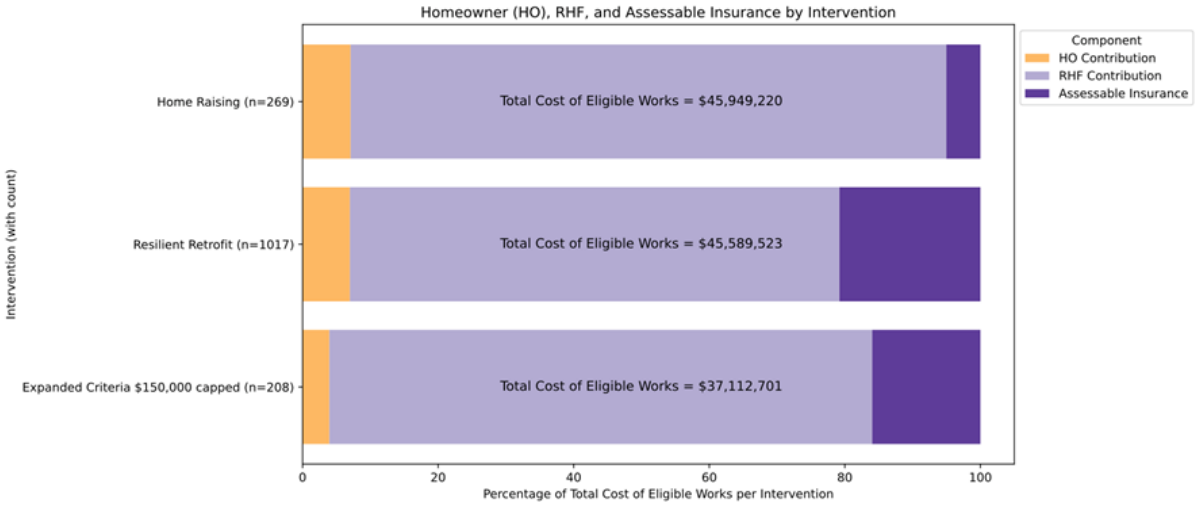
FIGURE 4.8: A FRAMEWORK FOR EVALUATING HOMEOWNERS' INDIVIDUAL CAPACITIES

Financial capacity shaped but did not determine outcomes

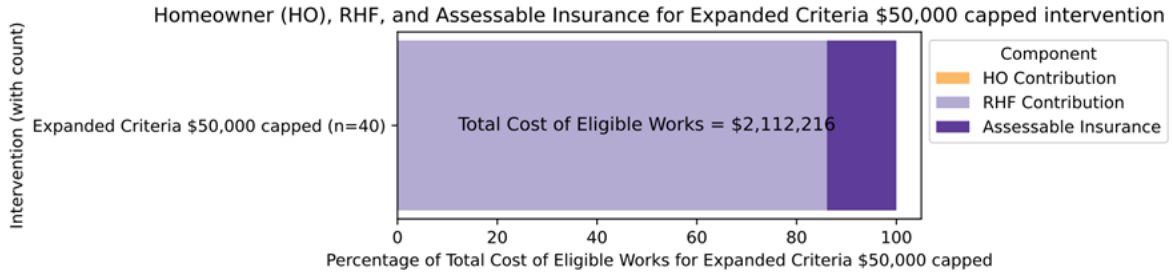
Homeowners' experiences and their ability to navigate the RHF were influenced by their financial resources.[77] This was evident in VHBB, Home Raising and Resilient Retrofit. For those who were eligible for VHBB, their decision to accept the buy-back, or to be satisfied with accepting it, was influenced by economic factors, such as whether they were able to purchase another property of equal value, whether they could service the mortgage on a new purchase (if necessary), and whether they could afford the additional costs incurred by a home move. Many homeowners in the VHBB expressed satisfaction with their financial outcomes, with 57 % of survey respondents expressing agreement above the median that the money provided was sufficient for their needs. However, the choice modelling (Appendix F) also indicated that those in suburbs with higher employment, which is a proxy for wealth, were more likely not to accept the VHBB intervention over other offers. While these data cannot be over-interpreted, it appears that financial resources have mixed outcomes for choices. For example, money invested in a mortgaged home may be a reason to decline VHBB and take an alternative intervention.

Figures 4.9a and 4.9b show the breakdown of homeowner, RHF and assessable insurance amount for the Home Raising, Resilient Retrofit, and Expanded Criteria interventions, where known. While these data were partial, it was apparent that homeowners did supplement these interventions with some of their own funds and, where available, insurance payments (refer to Table 4.3 on self-reported insurance levels). For these programs, additional financial resources beyond the grant provided were often necessary and homeowners could apply for a Financial Hardship Certificate.[78] Home Raising required upfront preliminary costs to engage contractors, scope works and gain planning approval. While these costs could later be recouped if the homeowner proceeded with Home Raising, these initial costs were prohibitive to many. Hence, personal financial resources, or the ability to access such resources through other means, was important to progress with one of these interventions.[79] For example, 315 homeowners stated during RoI that they had applied for a means-tested DRFA Structural Assistance Grant. However, the financial situation of some homeowners made it challenging for them to take advantage of any offer for which they were eligible. For example, participants also needed to consider additional financial costs that were not always covered by other support, including mortgage repayments, temporary accommodation, relocation costs and council rates and utility bills on

flooded properties. Nonetheless, while important, financial resources alone were not decisive. Success depended on combining financial elements with other forms of support.



(A) BREAKDOWN OF HOMEOWNER, RHF AND INSURANCE CONTRIBUTIONS BY HOME RAISING, RESILIENT RETROFIT AND EXPANDED CRITERIA $150,000 CAPPED INTERVENTION



(B) BREAKDOWN OF HOMEOWNER, RHF AND INSURANCE CONTRIBUTIONS BY EXPANDED CRITERIA $50,000 CAPPED INTERVENTION

FIGURE 4.9: BREAKDOWN OF HOMEOWNER, RHF, AND INSURANCE CONTRIBUTIONS[i]

TABLE 4.3: SELF-REPORTED LEVELS OF INSURANCE AT ROI

Self-reported insurance level	VHBB	Home Raising/Resilient Retrofit
Yes, I have full cover	672 (70.4%)	2,607 (82.1%)
Yes, but I don't have flood cover	192 (20.1%)	359 (11.3%)
No, I don't have house insurance	91 (9.5%)	210 (6.6%)

[i] Data provided to the research team was valid to 3 February 2025

Social capacity enabled and substituted for other resources

Strong social and familial networks bridged gaps for homeowners.[80] Such networks were helpful and amplified progress for those with fewer financial resources, making outcomes less dependent on financial or technical capacity alone. Both survey results showed the value accorded to social and familiar networks, where 17% of respondents for VHBB and 19% for Home Raising and Resilient Retrofit gave social connections, such as recommendations from family, friends and neighbours, as their primary reason to register for the different programs. Social support during Home Raising and Resilient Retrofit was also important to homeowners, with 15% of survey respondents noting that they stayed with family and friends during resilience works.

Social connections enabled some people to navigate what they perceived as complex and shifting information about the different interventions and to gain advice on aspects such as building requirements from those who were also going through the process. In this manner, social connections could provide aspects of technical and practical support, such as introducing the homeowner to a builder or drawing on the expertise of a family member or friend with knowledge of planning and other requirements. Such support could help an individual interpret the different interventions and support them to persist with the different stages necessary to complete their chosen intervention. Generally, and consistent with the literature,[81] those with strong social and community connections found it easier to register and progress through whichever path they chose.

Emotional capacity was undermined by legacy of flood impacts

Many homeowners were grateful for the program and felt more resilient. However, the RHF was implemented during the recovery context, and some homeowners were left overwhelmed by their recent experiences and subsequent trauma arising from both the flood and its ongoing consequences upon their lives.[82] Unsurprisingly, therefore, mental health impacted people's decisions, particularly in the VHBB which was typically offered to those who had experienced more severe inundation (refer to Figure 4.5), with 48% of VHBB survey participants selecting mental health as a key influence on their decision to participate in the RHF. For some homeowners, this trauma undermined their emotional resilience and exacerbated their frustrations while navigating a complex program. As outlined in Section 2.4, this evaluation does not consider the role of, or participants' engagement with, other DRFA programs which may have supported them in post-disaster recovery such as the Community Health and Wellbeing Package (Category C).[83]

> *"The mental stress when you lose everything and they expect us to be 'with it', make decisions quickly, and be rational, when we were focused on finding somewhere to live, keeping down a job." – Homeowner*

Homeowner's capacity to respond was affected by whether they could cope and persist under emotional stress in the context of flood recovery and their broader lives and responsibilities. Some homeowners disengaged or delayed their progress through the processes. Importantly, interviews showed that the effects of trauma could override other factors like education and socioeconomic status. However, as shown by the representative positive survey responses to the question of what homeowners would have done without the RHF, emotional capacity could also be strengthened by completion of the chosen intervention, with 56% of total survey respondents stating that they felt more resilient after completing their RHF intervention. Emotional capacity was not a static state and fluctuated throughout the homeowners' journey.

"I could not afford to raise it. Instead, [I] would have just prayed that there would be no more future flooding at my property. But I am very appreciative, thankful and grateful for all the assistance and help given to me towards our house raise… Thank you RHF + QRIDA and all the amazing staff for your support and guidance." – Open-ended survey response Home Raising

"Voluntary Home Buy-Back program saved me in so many ways. I was too scared to even think about negotiating the buy-back price but more than that I was grateful and relieved. But more importantly I was partly in shock of what happened the entire time. So, thank you so very much for everyone's hard work making this program possible." – Open-ended survey response VHBB

Homeowner capacities were shaped by life experiences and existing vulnerabilities

As the framework in Figure 4.8 shows, financial, social and emotional capacities did not occur in isolation but were combined with and informed by homeowners' life experiences and existing vulnerabilities.

Life experiences refer to people's know-how, literacy and practical skills. Life experience was hard to measure, as it constituted diverse professional and educational backgrounds, as well as aspects of age and personal experiences. Survey results suggested that educational level generally had positive associations with progression and satisfaction at or above the median. However, this was not necessarily limited to higher education, suggesting that the benefits of education were most likely in providing a necessary base level of literacy and ability to understand both the administrative procedures and the agreements involved in any intervention. Other life skills and experiences of homeowners also influenced their experiences of the RHF. For example, those who had previously flooded reported that they were able to implement knowledge to improve their own experience. Similarly, those who had previously undertaken a major home renovation were more likely to understand the process they were about to enter, even where they indicated that they found the Home Raising or Resilient Retrofit building process more stressful (50% of those with prior major home renovation experience). Generally, life skills and experiences, which provided practical abilities to manage what some homeowners perceived as complex administrative processes to either accept a VHBB or complete a resilient rebuilding process, enhanced homeowners' combination of financial, social, and emotional capacities.[84]

Existing vulnerabilities influenced homeowners' ability to respond to the RHF. Social inequalities and existing vulnerabilities in a disaster recovery context disproportionately affect marginalised communities,[85] cover a spectrum of characteristics including low income, disability, caring responsibilities, digital exclusion, and health conditions,[86] and are reproduced through human actions and everyday practices.[87] One or more of such vulnerabilities could compound and overwhelm homeowners' capacity to respond. For example, a homeowner explained that they were caring for an ill, ageing parent and two children with disabilities, one of whom was deeply traumatised by the flood. Addressing these demands while also needing to move into insecure rental accommodation due to the flood diminished their coping resources, leaving limited capacity to also deal with the complexity of the program.

Culturally and Linguistically Diverse (CALD) communities and those with English as a Second Language (ESL) also experienced vulnerabilities in navigating aspects of the program, particularly for Home Raising and Resilient Retrofit. Specifically, ESL was associated with greater difficulties in understanding the technical aspects of these interventions and with securing a builder (refer to Figure 4.10). Consistent with CALD barriers to emergency communication and survey engagement,[88] the number of such respondents is small and should not be over-interpreted. However, data triangulation (refer to Appendix B) confirms that these struggles were also noted by program staff, builders, and other stakeholders who reported difficulty in explaining technical

terms related to resilient materials (especially over the phone) to members from CALD communities. Such challenges were partially alleviated with the implementation of case coordination, including case management and technical support provided by program staff, and the assistance of Service Navigators and some contractors who made extra efforts to support homeowners through the journey (refer to Section 5).

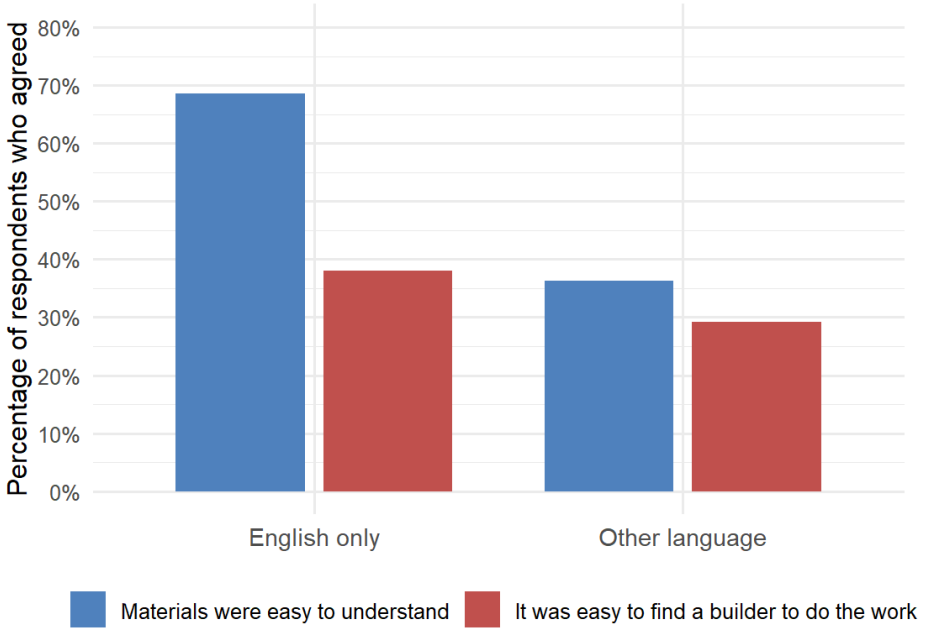


FIGURE 4.10: LANGUAGE BARRIERS AFFECTING PARTICIPANT EXPERIENCE OF HOME RAISING/RESILIENT RETROFIT

Evaluation insights and program reflections: Homeowners' individual capacities were combined with and informed by their life experiences and existing vulnerabilities, which profoundly influenced their experiences of the program. Homeowners with lower financial, social or emotional capacity may require additional support alongside property considerations to improve access and progression. Tailored guidance and practical assistance can enhance appropriateness and help ensure that participation remains equitable within a voluntary program (refer to Section 5).

4.2.2 Variation in individual's challenges to respond shaped their experiences of the RHF program

Individual homeowners faced distinct challenges in responding to the RHF. These challenges were based upon the composite elements of their financial, social and emotional capacities which were informed by life experiences and existing vulnerabilities (refer to Section 4.2.1). Drawing from the literature and informed by analysis of survey and interview data (refer to Table 2.2 and Appendices B, G), these elements were drawn together into a conceptual model, Figure 4.11, that depicts whether homeowners are likely to have **few, moderate, or compounding** challenges in responding to a program such as the RHF.[89] This conceptualisation incorporates the resilience capacities explained in Section 4.2.1; while also accounting for the way they may compound into specific challenges that affected engagement with the program, which are now considered. To evidence this section, findings from the surveys are presented (refer to Appendix G), which were confirmed and interpreted through triangulation with homeowner interview data from the relevant clusters, from which representative quotes are displayed throughout Section 4.2 (refer to Appendix B). The types of support required to alleviate such challenges will be discussed in Section 5.1.

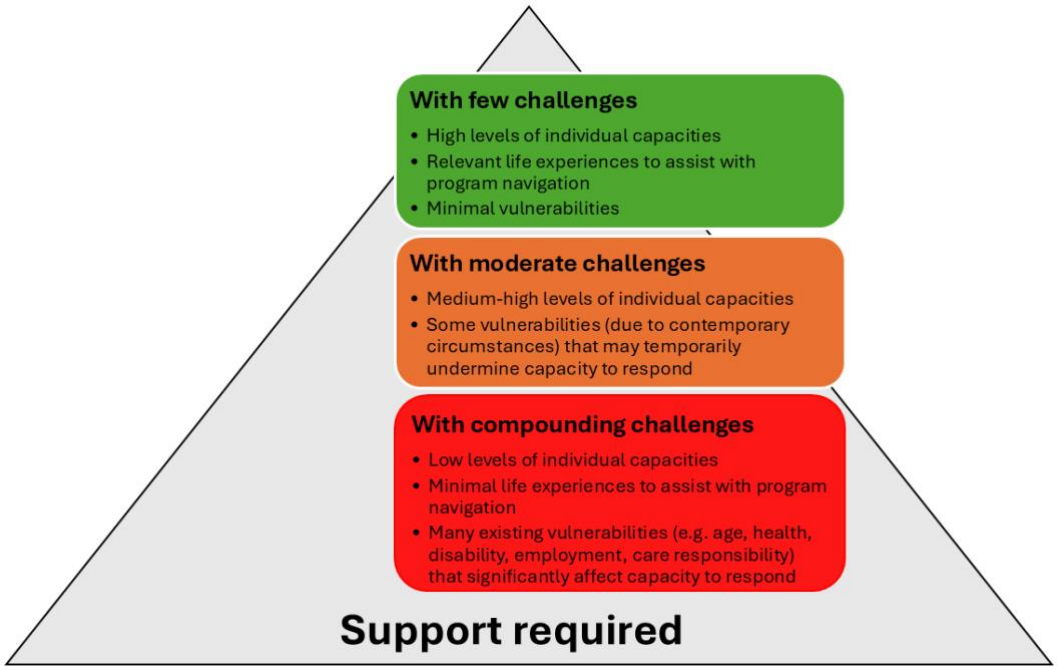


FIGURE 4.11: A FRAMEWORK REPRESENTING HOMEOWNER CHALLENGES IN RESPONDING TO A RESILIENCE PROGRAM

Those who faced few challenges to respond indicated that, even where they found aspects stressful, they had the capabilities to negotiate RHF processes. While in isolation this can appear to be attributed to factors like employment, financial resources, or positive life experiences, they often went together. Such elements were also associated with strong social resources and community connections meaning these homeowners were well equipped to respond. Understandably, albeit not inevitably, sufficient finances and strong social connections, particularly when combined with relevant life experiences, could also build emotional capacity, reducing challenges in responding to a complex program in which decisions were taken whilst recovering from flood.

> *"My house was severely affected, and I knew that it would go under flood again… I feel very comfortable where I am now as there is no risk of flooding and it is quite a large house. I was very lucky to buy at the price I did and overall, I think I came out of the flood with much better assets and financial situation." – Homeowner (who completed VHBB intervention)*

Those with few challenges to respond were able to register for and progress through their chosen intervention with few additional supports. For example, 60% of the VHBB survey respondents were satisfied with the process and outcomes. Analysis showed that these respondents comprised two key clusters that showed strong social connections, indicators of emotional resilience, such as satisfaction with many aspects of their lives outside the VHBB, and had ongoing employment or, where no longer employed, had sufficient financial resources. That is, they clustered to the higher level of individual capacities depicted in Figure 4.8. Similarly, 41% of respondents who had completed Home Raising or Resilient Retrofit also expressed high satisfaction. These respondents also clustered to the higher levels of individual capabilities, noting, however, that satisfaction was also contingent on completion of homeowner works. Even where they may also have expressed views that aspects of the RHF process were frustrating or stressful, such respondents progressed with their selected intervention, indicating that they had relatively few challenges to respond.

Homeowners with moderate challenges to respond faced additional challenges to progress that were impacted by their individual capacities. While homeowners in this category may have appeared well equipped to navigate the program based on some variables in the surveys, such as education or income, some faced multiple challenges due to their specific personal circumstances. For example, a highly educated couple with experience in the building industry faced intersecting challenges of purchasing a house and having a baby in close proximity to the flood event, which added to their life complexity and affected their ability to engage with the program. Such challenges were amplified by their difficulties in engaging building contractors to complete their RHF works (refer to Section 5). Together these circumstances, while not constituting low individual capacities, led to challenges in progressing with their offer, which others of a similar background or status may not experience. While moderate challenges to respond might have been temporary, circumstantial, and surmountable, homeowners who experienced them required additional supports to progress, some of which were provided by ICE activities (refer to Section 5).

"I won't have to worry about getting out of bed and my feet touching water in the morning.

I'm safe.
My contents are safe.
My house is safe.

...There is absolutely no way in the world that I would have been able to raise this house following that flood without the help of the Resilient Homes Fund".

Homeowner

Resilient Homes Fund, Suzanne's story – Courtesy RHF website

Homeowners with specific problems in one or more of the above capacities, particularly where these were exacerbated by existing vulnerabilities or not offset by life experiences, faced compounding challenges to respond. In some cases, compounding challenges to respond were related to financial circumstances of homeowners alongside other existing vulnerabilities. In the VHBB survey, 27% of the respondents who were dissatisfied with the process and outcomes had compounding challenges, mostly associated with older homeowners without children, single individuals, those who lived in regional areas and people receiving a lower income or pension. Compounding challenges affected ability to respond to the program, progress an offer, or experience satisfaction with the outcome. This was further confirmed with interview data where some homeowners with insecure employment, alongside ESL, struggled to communicate effectively with builders and felt that they were being taken advantage of when any delays or additional costs arose, for which they had

limited financial resources. Other compounding challenges included age, ill health, disability, caring responsibilities, and other consequences of flooding like material loss and unemployment. Compounding challenges required a broad base of different types of support (refer to Figure 4.11). For example, Service Navigators and contractors explained additional measures that they had taken with some such individuals, like pensioners who were experiencing cognitive decline and did not have family support to work through the processes (refer to Section 5). The point of compounding challenges is that they are not attributable to a single cause but constitute a set of circumstances and capacities that affected the homeowner's ability to take up an offer without significant support.

Consistent with the literature and conceptual model developed in Figure 4.11, individual homeowners faced specific challenges in responding to the RHF program. As these challenges compounded, homeowners required additional supports, from the case management and one-to-one technical support provided by program staff to the assistance provided through ICE and the Service Navigator program. These supports are discussed in Section 5.

Evaluation insights and program reflections: Individual homeowners faced few, moderate, or compounding challenges, based on their individual capacities and circumstances, which impacted their experience of and ability to respond to the program. Homeowners' challenges can be assessed at the point of registration or early engagement. Recognising these challenges can enable program staff to more effectively appraise the support that such homeowners may need to progress through a voluntary program.

4.2.3 Challenges of progressing Community Title properties through VHBB

Community Title properties were eligible for and participated in the Resilient Retrofit intervention. However, they were difficult to include in VHBB as an individual buy-back program because negotiations were necessary with both the individual homeowners and the body corporate. Originally, there was no provision for Community Title properties in the VHBB as the RHF was conceived as an individual program. However, in response to community need, the RHF modified their policy to include two such properties. While not representative of the wider VHBB program, taking such properties through buy-back added complexities that were noted for future programs.

The two Community Title properties that were included in the VHBB were extreme cases of both dimensions of variation in program experience (refer to Figure 4.1). They combined property complexity and inundation severity with compounding challenges to respond, as homeowners were not able to make their own individual decisions. Rather, the experiences of all homeowners in the property were affected by the challenges to respond of any one homeowner, as 100% of owners within the Community Title needed to register to be considered. Such agreements were complex to reach because some homeowners did not want to leave. Therefore, in one case the State and Local Government implemented a compulsory acquisition process as not all homeowners agreed to participate in the RHF.

The inclusion of Community Title properties in the VHBB led to a range of issues, decisions and external considerations that greatly impacted the ability of individual homeowners to progress through the program. For example, if body corporates lacked appropriate financial management or legal representation, that impacted the homeowners' experiences. Additionally, LGAs needed greater involvement than in a standard buy-back. As residents made decisions at different times, LGAs bore responsibilities for some of those residents over an extended period while the process moved toward completion. Future programs can consider the key learnings in Exhibit 4.1 when deciding upon the inclusion of Community Title properties in a buy-back program.

Exhibit 4.1: Key learnings from the inclusion of Community Title properties in VHBB

- All Community Title homeowners need to be engaged early and consistently informed to ensure a common basis for individual decisions
- Understand complexities of dealing with body corporates as well as individual homeowners, which affects individual voluntary decision making
- Understand acquisition policies and consider strategies if 100% of homeowner support is not achieved
- Clearly define responsibilities between levels of government
- Consider additional costs for LGAs

Voluntary buy-back programs that target individual homeowners are not adequate for those who live in Community Title properties, albeit the RHF made allowances to incorporate two such properties. Future disaster recovery programs could consider how such collectively owned property can be made more resilient, given 16-26% of Australians currently reside in Community Title properties, including considering existing strata resilience policies and programs.[90]

Evaluation insights and program reflections: Community Title properties were not easily compatible with an individually oriented voluntary buy-back program, because all owners needed to agree, yet they did not all have the same capacity to respond to the offer. Specific policies may need to be designed that can cater to the combination of individual and Community Title ownership of property.

4.2.4 Variation in perceived value from and satisfaction in a voluntary program

Participant's' satisfaction with disaster resilience programs is difficult to assess using a single measure because of variation in people's perceptions based on their capabilities and circumstances and is also dynamic, changing over time.[91] Several different measures to evaluate satisfaction in both the process and the outcome were included in the VHBB and Home Raising and Resilient Retrofit surveys. These measures built on other studies that have used surveys to examine satisfaction through issues such as completion, timing, perceptions of fairness, perceptions of equity and of betterment.[92] Understanding these perceptions provides important context for understanding variation in homeowner choice.

Homeowners' perceptions of value from the RHF program did not necessarily match either the best possible physical resilience measure offered to them (refer to Figure 4.7) or their outcome. Rather, homeowners chose to progress (or not) with a specific intervention, based on their individual capacities (refer to Figure 4.8) and the challenges they experienced in responding to the program (refer to Figure 4.11), which shaped the issues that were most important to them in participating in the program. For example, Figure 4.12 illustrates the multiple reasons that survey respondents selected as important to their decision to participate in the VHBB program. While flood resilience of their property was the most important, it was not the only consideration. Rather, multiple considerations shaped what homeowners most valued according to their circumstances at the time, and, hence, their satisfaction with their experience.

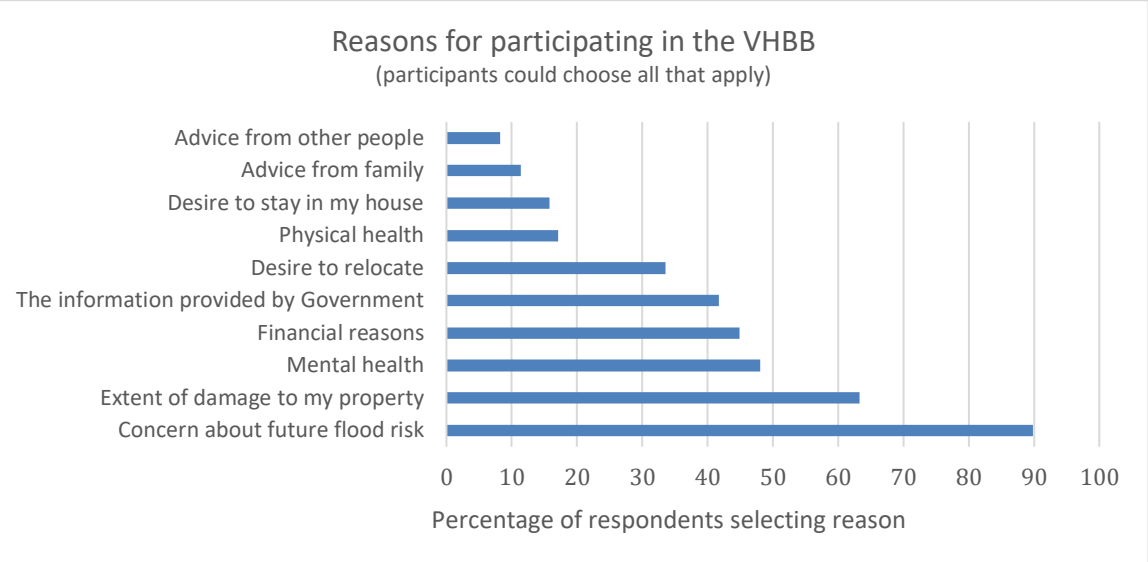


FIGURE 4.12: REASONS FOR PARTICIPATING IN THE VHBB

The voluntary nature of the RHF allowed people to make their own decisions. While these decisions were grounded in different reasons, individuals' perceptions of value and their ability to make informed choices were also shaped by their challenges to respond. Understanding these perceptions of value was therefore key to evaluating this program, as homeowners sometimes made suboptimal choices from the perspective of increased resilience to floods because those choices better suited their life stages and circumstances. Survey responses and interviews demonstrated that homeowners' satisfaction was influenced by the following:

- Completion and progress stage – Completion was one of the highest drivers of satisfaction, regardless of the intervention chosen. Those who had completed the process indicated higher satisfaction than those who were still involved, who often expressed frustration with aspects of the process. This is ably demonstrated by responses to the Home Raising and Resilient Retrofit survey, where the primary driver of satisfaction for 82% of homeowners was the stage of the process that they had reached, and how close they were to completion.

- Timing – The time at which a homeowner participated in each stage impacted their experience of the post-disaster recovery program. For example, open-ended responses to the Home Raising and Resilient Retrofit survey indicated that increases in construction costs as well as availability of builders reduced some homeowners' capacity to participate. Other open-ended responses for those who left the program explained that, due to the time taken to receive their offer, homeowners had already completed the works using their own or insurance funds and so did not take up the offer. Yet, homeowners who were challenged in responding struggled to register to participate or meet program deadlines, even with extended timelines. Hence, as noted in Section 3, the timing of program rollout and homeowners' progressions through the stages (refer to also Appendix C) can affect homeowners' experiences differently and affect their perceptions of value and satisfaction.

- Equity with or betterment of current position – Homeowners wanted to be more flood resilient, but some tempered this with their ability to be in an equitable or better position after the chosen intervention.[93] This included either being in an equal or better financial position or being in a safer position vis-à-vis flood. For example, 48 % of VHBB survey respondents indicated that they wanted to use the money to buy something similar in the same or a comparable suburb. Hence, perceptions of homeowners who were offered VHBB were shaped by whether they thought they could buy something of similar value given changes in the broader housing market and cost of living concerns. Others valued their increased flood resilience which gave them betterment in terms of both physical

and emotional resilience, as evidenced by a video case study of a couple who completed Home Raising in the Brisbane suburb of Tingalpa.[94]

- **Perceptions of fairness** – Some homeowners were influenced by their perceptions of whether the offer they received was fair. For example, 63% of participants in the VHBB survey expressed agreement above the median that the offer was fair. Fairness was both a comparative measure, relative to others, and a perception that the homeowners' needs were listened to and accounted for in their ultimate outcome. Some homeowners compared themselves with neighbours and failed to understand why certain properties received particular recommendations, which stemmed from their perceptions of opaque and unequal application of eligibility and intervention offers. Others felt that the process had been fair because they were given time to consider the offer and to ask questions. Hence, even if the ultimate offer that they received was not their first choice, they were satisfied that the process had been fair.

While the program reached many homeowners and many expressed satisfactions particularly after the process was completed, not all homeowners were satisfied with the process or their specific outcome. Their perceptions were shaped by the same factors outlined throughout this section: the challenges of responding to the program, the options available to them, and how these aligned with personal circumstances and priorities. Such perceptions are, therefore, important in understanding how individuals will respond to a program. Support programs and initiatives that addressed some of these perceptions and associated responses are described in Section 5.

Evaluation insights and program reflections: Homeowners' perceptions of value and satisfaction did not always align with physical resilience and were linked with completion and progress stage, timing and concepts of equity and fairness. Experience and satisfaction prior to completion may be improved where homeowners perceive that their varied challenges, needs and values are being addressed through timely and transparent processes.

4.3 Conclusions on individual approach to resilience

Section 4 evaluated how the RHF's individually oriented and voluntary design performed in practice for a population of highly varied properties, inundation levels, and homeowner capabilities. The analysis showed that an individual approach enabled offers to be tailored to combinations of inundation severity and building typology (Section 4.1) and homeowner capacities and challenges (Section 4.2). Property characteristics shaped which interventions were technically feasible and recommended, while homeowners' financial, social, and emotional capacities and their existing vulnerabilities shaped whether and how they acted on those recommendations.

This section demonstrates that the RHF performed effectively in reaching and benefiting many of the most affected properties, with higher inundation associated with greater participation among registrants, and with many homeowners reporting increased resilience once their chosen intervention was completed. At the same time, the evaluation highlighted predictable tensions within a voluntary, individualised program. Not all homes were suited to every intervention; recommendations did not always align with the options homeowners ultimately chose, and some homeowners faced moderate or compounding challenges that limited their ability to act on the most physically resilient offer. Satisfaction and perceptions of value were shaped both by progress toward completion, fairness and personal circumstances, and by physical resilience outcomes.

5 Mobilising and managing equity within eligibility

Section 5 examines how the RHF mobilised the eligible target population during implementation and how different forms of support were used to manage equity within eligibility. *Mobilisation* refers to the practical work required to enable eligible homeowners to access the program, understand what it offers, and act on that offer. In resilient housing programs, eligibility alone is rarely sufficient to ensure participation or progression.[95] Delivery therefore needs to account for variation in homeowners' capacity to navigate information, make decisions, coordinate works, and sustain engagement over time. However, this evaluation does not explore challenges outside the control of homeowners, such as the building industry's capacity and capability to support homeowners and the program in general. As outlined in Section 2.4, this evaluation does not consider the role of, or participants' engagement with, other wider government support to homeowners such as DRFA programs which may have supported them in post-disaster recovery.

The evaluative framework underpinning this report treats mobilisation as a distinct delivery challenge in disaster recovery programs (refer to Section 2). Even where program settings and eligibility criteria are clear, households may be slow or reluctant to engage.[96] Prior analysis of resilient housing policies identified two broad levers for mobilisation: incentives and support mechanisms. *Incentives* reduce financial barriers and strengthen the rationale for participation, while *support mechanisms* reduce practical barriers by assisting households to access, interpret, and progress through program requirements.[97] The RHF was not designed around targeted incentives as a primary mobilisation tool. Mobilisation, therefore, relied predominantly on a suite of support mechanisms embedded within the program delivery.

As demonstrated in Section 4, homeowners experienced different levels of challenge in responding to the RHF, shaped by financial circumstances, housing conditions, digital and technical literacy, language and cultural factors, health and wellbeing and the cumulative effects of disaster recovery.[98] While eligibility criteria were applied consistently, these challenges generated inequities,[99] in which participation and progression were not experienced evenly across the target population. To address this, the RHF incorporated multiple forms of support delivered through RHF Service Delivery functions, the ICE supportive project, Internal and External Service Navigators, builders, and, in a pilot program, insurers. These mechanisms operated in parallel and were often complementary. Section 5 evaluates how these different forms of support contributed to mobilisation and equity within eligibility.

Key findings: The RHF successfully mobilised many homeowners by providing access to multiple types of standardised, specialised and tailored support. These supports were delivered directly by program staff, through ICE activities, and by engaging with other stakeholders including Internal and External Service Navigators and other support services, builders and insurers. In either directly providing or establishing connections for different types of support, the RHF program addressed equity issues for homeowners who experienced greater challenges to respond, making it possible for more homeowners to progress through the program.

5.1 Understanding variation in mobilisation and extent of support needs within RHF

Within the RHF, mobilisation activity was directed primarily toward resilience education and uptake of grant offers. Engagement was delivered through a combination of standardised, specialised and tailored mechanisms. These categories describe differences in the intensity and form of support required, rather than differences in program ownership or delivery responsibility. Standardised support was provided to all

homeowners, while specialised and tailored engagement were used where additional clarification, technical guidance, or coordination was required. The categories used in this section describe forms of engagement for mobilisation, not levels of entitlement to support. Mobilisation focused on helping homeowners and builders understand flood resilience options, technical requirements, and program processes so they could make informed decisions and progress works in line with RHF initiatives. Multiple delivery stakeholders contributed to each form of engagement, reflecting the collaborative structure of the program.

Figure 5.1 provides a heuristic framework for understanding how different forms of mobilisation activity were combined during RHF implementation. Conceptually, Figure 5.1 is analytically grounded in established insights from disaster recovery and public policy literature cited in this section and is presented as a heuristic to support evaluation.[100] The figure illustrates the types of standardised, specialised, and tailored engagement required to support education and uptake, rather than the proportion of homeowners receiving each form. These labels reflect well-established findings that standardised and accessible information can enable efficient self-service for a large proportion of a target population,[101] while more intensive and individualised forms of support are resource-intensive and therefore appropriately directed toward smaller groups facing greater barriers. In disaster recovery contexts, where time, capacity and resources are constrained, proportionate allocation of support is widely recognised as both effective and equitable.[102] Equity, in this context, refers to fairness in access and opportunity relative to vulnerability, recognising that homeowners faced different combinations of physical, financial, social, and emotional-related challenges that shaped their capacity to engage with the program (refer to Section 4.2).

Figure 5.1 provides a framework to align types of support with the varying needs of a target population. Figure 5.1 (A) summarises the RHF target population by level of challenge, drawing directly on the typology developed and conceptually and empirically substantiated in Section 4 (refer to Figure 4.11). Figure 5.1 (B) summarises the main types of support required, using three labels grounded in the literature and informed by evidence observed from RHF delivery (refer to Sections 3 and 4). Standardised support was universal, while specialised and tailored supports were layered across the cohort according to decision points, complexities of works and individual capacity to respond.

- Standardised support was offered to all registered homeowners and comprised information and process guidance including an individual home assessment report, VFM certificate, letter of offer and completion inspection. This included information about program eligibility, available interventions, and required steps, as well as stage-specific materials aligned to where homeowners were in their program journey. Standardised support was delivered through RHF Service Delivery functions such as written guidance, online resources, call centre responses, outbound communications, and publicly accessible materials, as well as through ICE-developed guidance and explanatory resources including fact sheets, videos, website information and design guides. These supports were intended to enable all homeowners to understand the program and progress through core stages.
- Specialised support involved additional clarification or facilitation for homeowners with particular questions, circumstances, or decisions that could not be resolved through standardised materials alone. This included case management to all Home Raising participants and was not solely associated with a homeowner's personal ability, but other factors such as build complexity and timeframes. One-on-one technical discussions were made available to all homeowners and builders to provide targeted advice and facilitate connections to relevant expertise or services. Specialised support was delivered across RHF Service Delivery, including 1,445 one-on-one technical support calls and 1,313 incidents of case management. ICE activities provided other specialised support such as information sessions and technical forums for builders and industry, and through direct interactions with builders and other stakeholders. Resilience expos also offered specialised support as they connected homeowners with builders to support them to undergo their works. While this support was individualised in form, it did not typically involve sustained or repeated case management and coordination across services.

- **Tailored support** included intensive, relational, and often coordinated assistance provided to homeowners with compounding challenges that substantially constrained their ability to engage with the program. This support typically involved repeated contact, case coordination, and assistance that extended beyond the core program. Examples included Service Navigator assistance to complete forms and upload documents, liaison with builders to progress approvals, and help to address practical barriers to participation, such as limited digital access, low English language literacy, or difficulty obtaining required property records. Tailored support was delivered primarily through formal case coordination mechanisms, within RHF Service Delivery and Internal and External Service Navigators (managed through Community Recovery), often in close interaction with other support organisations. Financial assistance provided through hardship measures was distinct from the engagement supports described in this section, as some recipients required financial relief without needing additional navigation or coordination support.

Figure 5.1 provides the organising structure for Section 5, supporting evaluation of how mobilisation mechanisms were deployed across the RHF to align appropriate provision of support with homeowner needs, to enhance equity within eligibility.

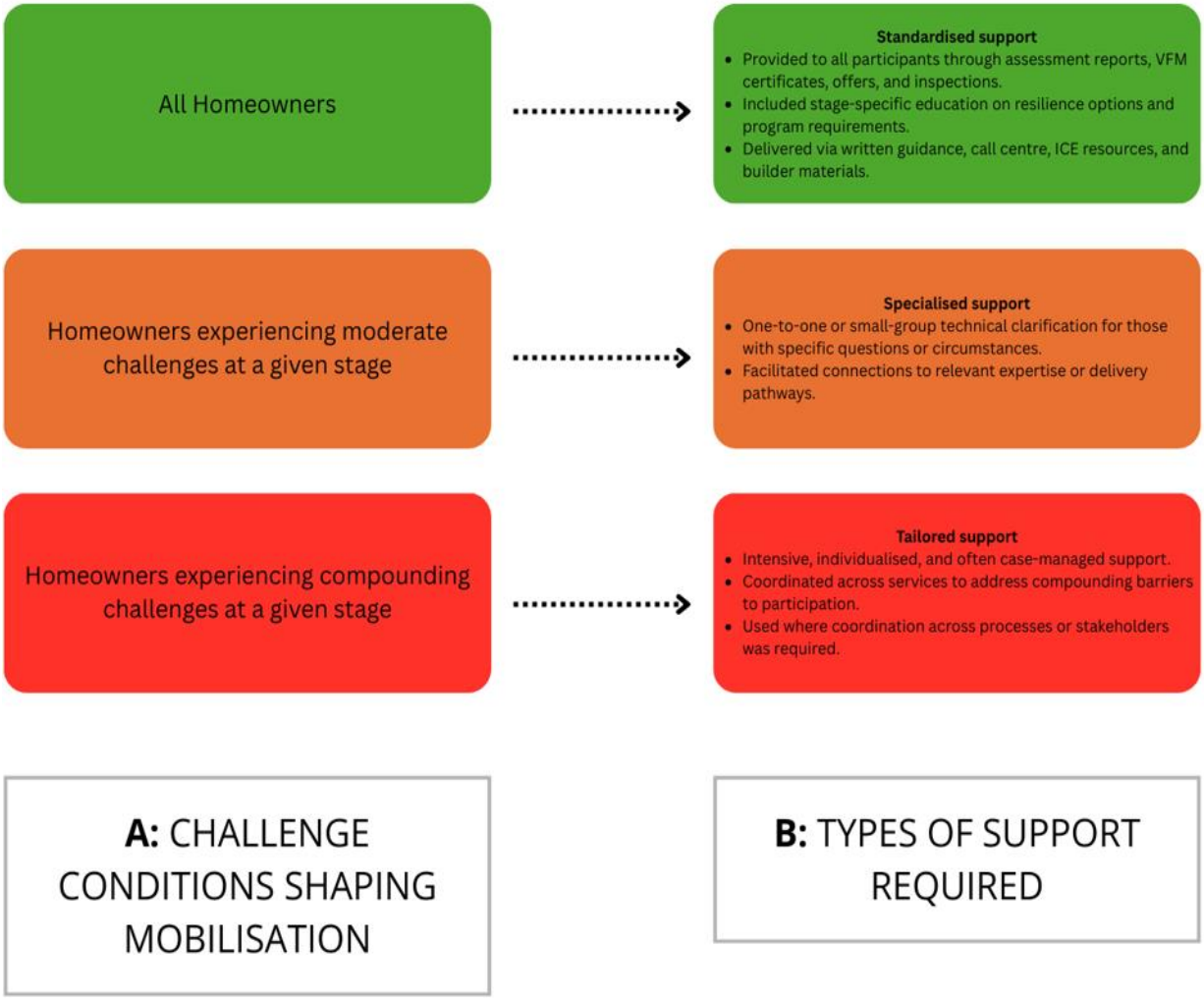


FIGURE 5.1: CONCEPTUAL FRAMEWORK FOR ALIGNING TYPES OF SUPPORT TO MOBILISATION NEEDS OF TARGET POPULATION

5.2 Evaluating the Industry and Community Education supportive project

This section evaluates the ICE supportive project against its stated objectives, drawing on qualitative and quantitative evidence while using the evaluative criteria defined in Section 2. ICE operated within the RHF and contributed to program access and capability across Queensland. The evaluation recognised that ICE delivery was ongoing at the time of reporting. Findings therefore reflected outcomes to date, based on the data made available, and considered the extent to which ICE was positioned to meet its longer-term aspirations.

ICE was the primary supportive project of the RHF and was delivered by DHPW with an emphasis on educating homeowners on the Home Raising and Resilient Retrofit interventions. ICE was one of five formal components of the RHF with $6 million in dedicated funding to be delivered through to December 2026.

Although ICE operated under the RHF umbrella, it had its own scope, funding and objectives, and was therefore evaluated as a distinct project. Designed as the education and outreach backbone of the program, ICE's activities often intersected with RHF communication and engagement. Where overlap occurred, this evaluation attributed outcomes to ICE's education and engagement functions where reasonable, while recognising that improvements in access, understanding, and capability resulted from the combined operation of the broader RHF.

ICE guidelines emphasised that homeowners needed to understand their flood risk, the resilience strategies they could implement to mitigate risks as identified through their home assessment report and which RHF intervention suited their circumstances. ICE also aimed to build longer-term capability across the construction industry, insurance, and support sectors, ensuring resilience knowledge extended beyond the life of the program.

As outlined in Figure 5.1, mobilisation within the RHF relied on different types and extents of support, aligned to variation in homeowner challenges rather than program ownership. Within this structure, ICE primarily contributed to the provision of standardised and specialised forms of support. ICE-developed guidance, explanatory materials and public-facing communications were part of the standardised support intended to enable most homeowners to independently understand the program. ICE activities such as community information sessions, resilience expos and sector forums also provided specialised support by offering opportunities for clarification, technical explanation and facilitating connections where standardised information alone was insufficient. ICE did not deliver tailored support, which was provided through formal case coordination mechanisms within RHF Service Delivery and through the Service Navigators under Community Recovery.

As ICE was established as a discrete, funded program with formally articulated objectives, this section includes an explicit assessment of ICE against those objectives to provide accountability for program intent and delivery. This objective-based assessment is complemented by a delivery-focused evaluation, consistent with the evaluative framework outlined in Section 2, examining how ICE activities operated in practice to support mobilisation and equity within eligibility during implementation.

ICE's objectives were:

1. To help inform evidence-based decision making about program eligibility, it is integral for homeowners to understand the flood risk for their home, better understand what they can do to mitigate/reduce their risk, and understand which option/s under the RHF, if any, will best suit their circumstance.
2. A targeted and tailored information and education campaign will be developed and delivered to ensure the *Flood Resilient Building Guidance for Queensland Homes* is updated and widely used and implemented during this program.
3. This will include information programs to encourage the take up of resilience initiatives for local government and state agencies, and for the following sectors:
    a) construction industry

b) insurance industry, including assessors and panel builders
c) wrap-around support sectors such as Non-Governmental Organisations (NGOs), legal and financial advisory services

4. Targeted community information sessions, with technical, one-on-one support for impacted homeowners.
5. Individual home assessments for eligible homeowners, including assisting with the identification of their flood exposure.

To deliver its objectives, ICE undertook a broad program of education, outreach and capability building activities. The following table summarises ICE's performance against its stated objectives, drawing on delivery data, survey responses, interviews, and document analysis.

TABLE 5.1: EVALUATION OF ICE AGAINST ITS STATED OBJECTIVES

ICE objective	Evidence[i]	Evaluation
1. To support homeowner understanding of eligibility, flood risk and RHF options	• 49 ICE events delivered information, practical demonstrations, and opportunities for homeowners and other stakeholders to ask questions. • Qualitative feedback highlighted the value of direct access to technical staff and builders.	***Achieved.*** Evidence indicates ICE improved homeowner understanding of flood risk and available RHF options, supporting informed decision making. This contribution complemented RHF Service Delivery.
2. To develop and deliver a targeted information and education campaign to update and promote the *Flood Resilient Building Guidance for Queensland Homes*	• Updated *Flood Resilient Building Guidance for Queensland Homes* and supporting homeowner and industry materials. • Dissemination through the RHF website; factsheets; informational videos; 'how to' videos; program-specific troubleshooting and next-step fact sheets; stage-based newsletters to homeowners; builder and stakeholder newsletters; webinars; internal training materials; and FAQs. • Used ICE events and public expos to explain and promote the guidance.	***Achieved***. ICE successfully updated and disseminated guidance materials across multiple channels. These resources supported consistent understanding of resilience measures, with relevance to RHF delivery and broader application beyond the program.
3. To deliver information programs encouraging uptake of resilient initiatives across construction, insurance, government and support sectors	• 23 builder-focused events across 17 locations and one webinar were held. • Engagement with insurers through the IDM pilot. • Participation of NGOs, legal and financial advisors in community events.	***Achieved***. ICE engaged key sectors and improved familiarity with resilience concepts and program requirements. This engagement supported mobilisation indirectly by aligning homeowner expectations and industry readiness, although outcomes remained contingent on broader delivery capacity.

[i] Data used to support this evaluation as received May 2025

4. To deliver targeted community information sessions with technical, one-on-one support for impacted homeowners	• 15 community information events and 7 resilience expos were held. • 1,112 recorded homeowner attendances. • Survey responses from homeowners who attended ICE events indicated they were useful for understanding options and next steps.	*Achieved*. Targeted events provided technical clarification and direct engagement that supported homeowner progression, particularly for those requiring more support than standardised information alone.
5. To support individual home assessments for eligible homeowners, including assisting with identification of flood exposure	• 5,633 Home Assessment Reports issued through RHF Service Delivery. • ICE activities supported interpretation of Home Assessment findings through explanation and guidance at events and one-on-one discussions.	***Contributed to achievement.*** While ICE did not deliver Home Assessments, its education and engagement activities supported homeowners to understand flood exposure and Assessment outputs, enabling more informed decisions about suitable interventions.

The evidence in Table 5.1 indicates that ICE made a substantive contribution to mobilisation within the RHF by improving access to information, supporting clarification at key decision points, and building shared understanding of flood resilience options across homeowners, industry, and support sectors. ICE's most direct effects were observed in relation to homeowner comprehension and engagement, particularly where program complexity or evolving circumstances risked slowing progress. The evaluation reflects ICE's role in enabling informed participation and reducing friction within the program, rather than attributing downstream delivery outcomes solely to ICE activities.

In practice, ICE activities did not operate as discrete workstreams but intersected and reinforced one another over time. Community information sessions, guidance materials, and sector engagement evolved together in response to delivery challenges, homeowner feedback, and changes in policy settings. While Table 5.1 assesses ICE against its stated objectives, Table 5.2 and the discussion that follows adopt a delivery-focused perspective, examining effectiveness, appropriateness, and efficiency in practice, with attention to how delivery challenges shaped ICE implementation over time.

Program reflections presented in this section translate observed delivery experience into considerations for the design of resilience programs operating in similar post-disaster contexts and signal their potential value if embedded earlier, more formally, or at greater scale.

TABLE 5.2: SUMMATIVE EVALUATION OF ICE SUPPORTIVE PROJECT

Evaluative focus	Evaluation insights	Program reflections
ICE was effective in supporting homeowner understanding and mobilisation	ICE improved homeowner understanding of flood risk, resilience options, and program processes by providing accessible information and opportunities for clarification. Face-to-face engagement was particularly effective where more standardised information was insufficient to resolve uncertainty. These contributions supported mobilisation, in conjunction with RHF Service Delivery and broader delivery capacity.	Place-based education and engagement mechanisms that allow for two-way interaction, particularly where programs involve complex technical or financial decisions, can support mobilisation.

ICE supported appropriate delivery for a post-disaster recovery context	ICE progressively adapted its communication approach in response to homeowner feedback, moving from uniform messaging toward staged and tailored information aligned to homeowner readiness. This improved fit between delivery methods and recovery conditions.	Built-in mechanisms for iterative communication testing and rapid content adjustment can support effective information dissemination.
ICE was effective in sector mobilisation	ICE engagement with builders, insurers, and support sectors increased familiarity with resilience concepts, technical requirements and program processes, enabling alignment between homeowner expectations and industry interpretation, even as mobilisation outcomes remained shaped by broader market capacity and workforce availability.	Early and sustained industry engagement alongside homeowner-facing communication recognises that mobilisation relies on both homeowner readiness and sector capability.
Contribution of ICE to longer-term resilience capability	ICE contributed to longer-term resilience capability by embedding flood risk and resilience knowledge in publicly accessible guidance, industry practice, and interorganisational relationships that extended beyond the immediate delivery needs of the RHF. While the durability and uptake of this capability could not be fully observed at reporting time, evidence indicates that ICE laid foundations for earlier and more informed engagement with flood risk, supporting a shift from reactive recovery toward anticipatory resilience.	Treating legacy planning as a core design consideration for education and engagement activities, with explicit strategies for transferability and ongoing use of materials and relationships beyond program lifecycles, can contribute to long-term resilience capability.

5.2.1 ICE was effective in supporting homeowner understanding and mobilisation

ICE supported homeowners to understand flood risk, available resilience options, and the practical steps required to engage with the RHF. In a voluntary program characterised by technical complexity and varied homeowner capacity, effective mobilisation required opportunities for clarification at key decision points.

ICE delivery data and evaluation evidence indicated that community information sessions and resilience expos were effective mechanisms for improving homeowner understanding where standardised information alone was insufficient. During 2022, ICE collected 78 post-session survey responses from 12 community information sessions attended by 724 homeowners. Across these sessions, approximately half of respondents reported that the information provided was very or extremely helpful in understanding flood risk, available options, and next steps (Figure 5.2).

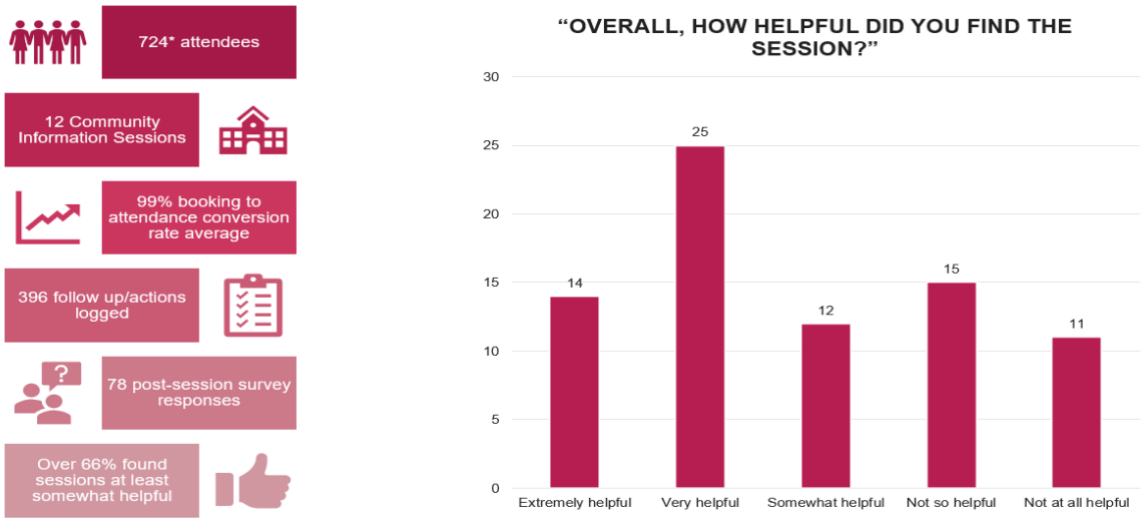


FIGURE 5.2: ICE ENGAGEMENT FIGURES FROM MAIN COMMUNITY INFORMATION SESSIONS IN 2022

These findings were reinforced in the Home Raising or Resilient Retrofit survey, where a third of respondents (101 responses) reported that they had attended community information sessions or resilience expos between 2022 and 2025. In this dataset, 83% of respondents reported that they understood what to do next, 79% reported improved understanding of resilience options, and responses were positive about other aspects of attendance, including rating the sessions a good use of time (refer to Figure 5.3). These findings suggest that ICE activities contributed to homeowner comprehension of and engagement with the program.

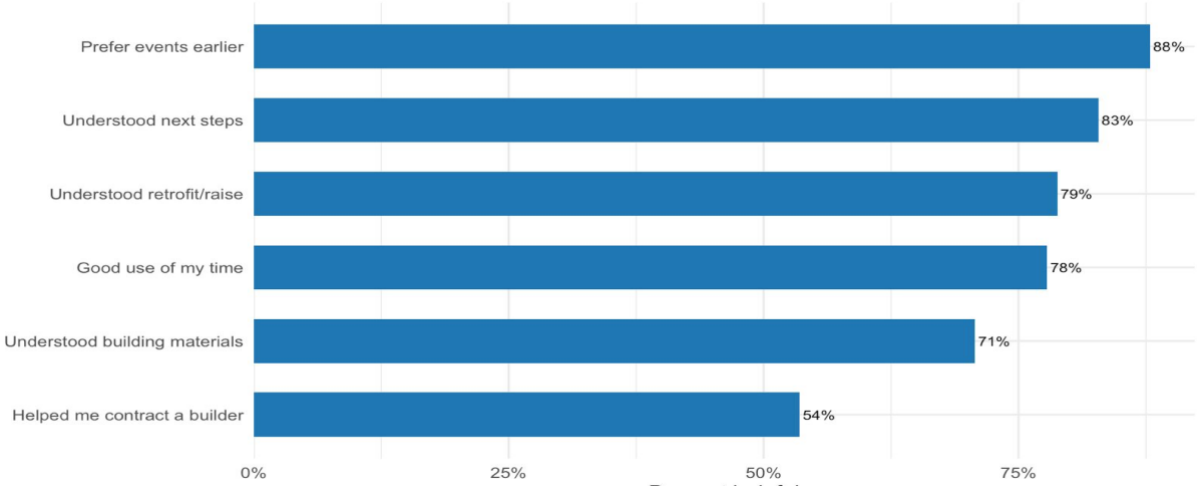


FIGURE 5.3: HOMEOWNERS' EXPERIENCE OF ICE EVENTS (% POSITIVE EVALUATION AT OR ABOVE THE MEDIAN)

Qualitative feedback provides further insight into how ICE supported mobilisation. Homeowners consistently emphasised the value of being able to speak directly with technical staff and builders in one setting, particularly where written guidance or call-based communication had not resolved uncertainty: "*Very helpful… the face-to-face meetings are helpful [to] sort out issues, much quicker than over the phone or email*" – *Homeowner*.

Overall, the evidence indicated that ICE was effective in supporting homeowner understanding, complementing RHF Service Delivery with mechanisms for direct clarification and engagement, by enabling homeowners to ask questions, interpret information, and maintain momentum at critical stages of their individual journeys.

Evaluation insights and program reflections: ICE improved homeowner understanding of flood risk, resilience options, and program processes by providing accessible information and opportunities for clarification. Face-to-face engagement was particularly effective where more standardised information was insufficient to resolve uncertainty. These contributions supported mobilisation, in conjunction with RHF Service Delivery and broader delivery capacity. Place-based education and engagement mechanisms that allow for two-way interaction, particularly where programs involve complex technical or financial decisions, can support mobilisation.

5.2.2 ICE supported appropriate delivery for a post-disaster recovery context

ICE delivery responded to the conditions of post-disaster recovery, including homeowner stress, uneven capacity to engage with complex programs and evolving program settings. Appropriateness was assessed in terms of whether ICE delivery methods were suited to these conditions and whether ICE adapted its approach as delivery experience accumulated.

Early ICE delivery relied on broad dissemination through standardised materials and public communication channels. While this enabled information to be shared quickly, feedback from early community information sessions indicated that uniform messaging alone was insufficient in a post-disaster recovery context, where homeowners were navigating trauma, uncertainty and complex technical decisions while program settings were still evolving. Program staff noted that *"one form of messaging is never going to work on its own"*, particularly when homeowners were at different stages of readiness and capacity to act.

ICE gathered feedback on homeowner understanding, concerns, and points of confusion through early community information sessions. This feedback informed ongoing adjustments to ICE materials and engagement strategies, contributing to a deliberate shift from uniform dissemination to a more staged approach aligned with homeowners' positions in the RHF journey.

> *"Those [community] forums were very well attended and helped us…they really helped us get a strong feel for community sentiment and what we needed to do…to engage with community members." – Program staff*

ICE progressively adapted its materials and engagement strategies. Guidance resources were rewritten in plainer language, visually simplified, and segmented to correspond with key decision points such as application, assessment, funding approval, commencement of works, and completion (refer to Figure 5.4). Rather than requiring homeowners to interpret the full program architecture at once, ICE materials were designed to reduce confusion by providing information relevant to the specific stage of the homeowner journey.

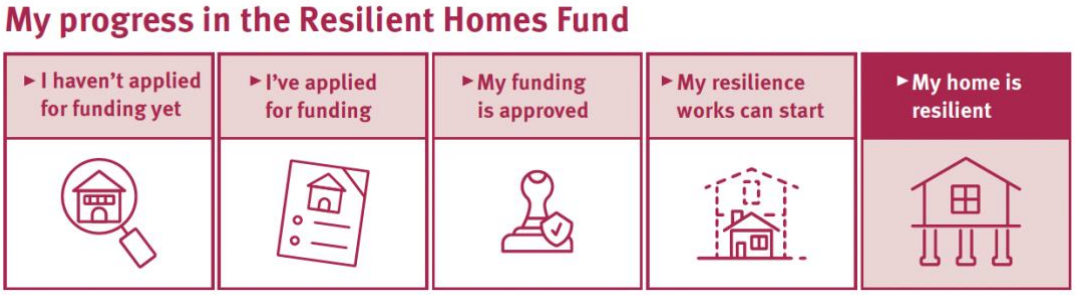


FIGURE 5.4: EXAMPLE OF ICE MATERIALS TO HELP HOMEOWNERS NAVIGATE SPECIFIC STAGES OF THE PROGRAM

Program staff described how changes were made after each major engagement activity, reflecting a learning-oriented delivery approach rather than a fixed communications plan. ICE events functioned as feedback sites where homeowner questions and points of confusion informed real-time refinement of messaging and materials: "*We made changes after every Expo. It wasn't static*" – *Program staff*.

Photo courtesv of DHPW

ICE also adjusted its delivery mix to better suit recovery conditions. While written and digital materials remained central, face-to-face engagement through community information sessions and resilience expos was increasingly emphasised to provide reassurance and resolve uncertainty in a context where many homeowners were managing stress, disruption and complex decisions. These settings enabled consistent explanations across stakeholders and supported homeowners to regain confidence in progressing through the program.

The evidence indicates that ICE delivery became more appropriate over time as it shifted from an information dissemination model to a staged approach, informed by homeowner feedback and aligned with recovery conditions. This responsiveness enabled ICE activities to support mobilisation within the RHF.

Evaluation Insights and Program Reflections: ICE progressively adapted its communication approach in response to homeowner feedback, moving from uniform messaging toward staged information aligned to homeowner readiness. This improved fit between delivery methods and recovery conditions. Built-in mechanisms for iterative communication testing and rapid content adjustment can support information dissemination.

5.2.3 ICE was effective in sector mobilisation

ICE supported sector mobilisation with the construction industry, insurers and wrap-around support services. Mobilisation at the sector level mattered because homeowner progression depended not only on homeowner understanding but on the availability, confidence and alignment of supporting stakeholders.

Evidence indicated that ICE's sector engagement evolved over time in response to delivery experience and emerging mobilisation challenges, rather than being implemented as a single, static strategy (refer to Appendix H). Builders also benefited from tailored support within the delivery of the grants, including VFM processes and one-on-one technical support calls. Early ICE activity in 2022 was primarily focused on homeowners, reflecting the immediate need to support understanding of flood risk, eligibility, and available interventions following the flood events. This phase centred on community information sessions delivered across affected locations, where homeowners sought clarity on their options and next steps in a highly uncertain recovery context.

As delivery progressed, it became apparent that greater clarity about options and program requirements alone was insufficient to support progression where industry capacity and readiness lagged. This highlighted the interdependence between homeowner decision making and sector readiness. Program staff consistently observed that mobilisation stalled when homeowners, despite having greater clarity about their own options, were unable to locate builders willing or able to engage with RHF requirements.

In response, ICE shifted its emphasis during 2023 to include targeted engagement with the construction sector. This included participation in Queensland Building and Construction Commission (QBCC) and Master Builders roadshows, as well as dedicated builder-focused events and webinars. Across 2023, ICE delivered a concentrated program of engagement activities, reaching builders in multiple regions through small-group forums that enabled detailed discussion of resilience measures, approved materials, quoting requirements, and program processes. These data suggest a targeted response to an identified mobilisation bottleneck rather than an expansion of ICE's original scope.

As a government-run program, the RHF could not recommend individual builders to homeowners without creating risks of perceived bias. However, repeated feedback through ICE engagement highlighted persistent difficulties in locating willing and appropriately informed contractors. To address this challenge, the RHF Contractor Register was introduced as a practical visibility mechanism rather than an endorsement tool. Promoted through radio and social media, the register attracted over 700 licensed builders and provided homeowners with a clearer pathway to identify contractors familiar with flood repair and resilience requirements. The RHF Contract Register was available on the QBCC website to ensure appropriately licensed builders were included, as managed through the regulator.

From 2024 onwards, ICE increasingly adopted a more integrated engagement model that brought homeowners and builders together through resilience expos and major public events such as the Brisbane Home Show. These events were deliberately structured as shared spaces where homeowners could access technical guidance while also connecting directly with builders familiar with RHF requirements. This integrative approach reflected learning from earlier delivery phases and recognised that mobilisation was most effective when homeowner-facing and industry-facing engagement occurred in parallel, supported by dedicated online resources for both groups (Figure 5.5).

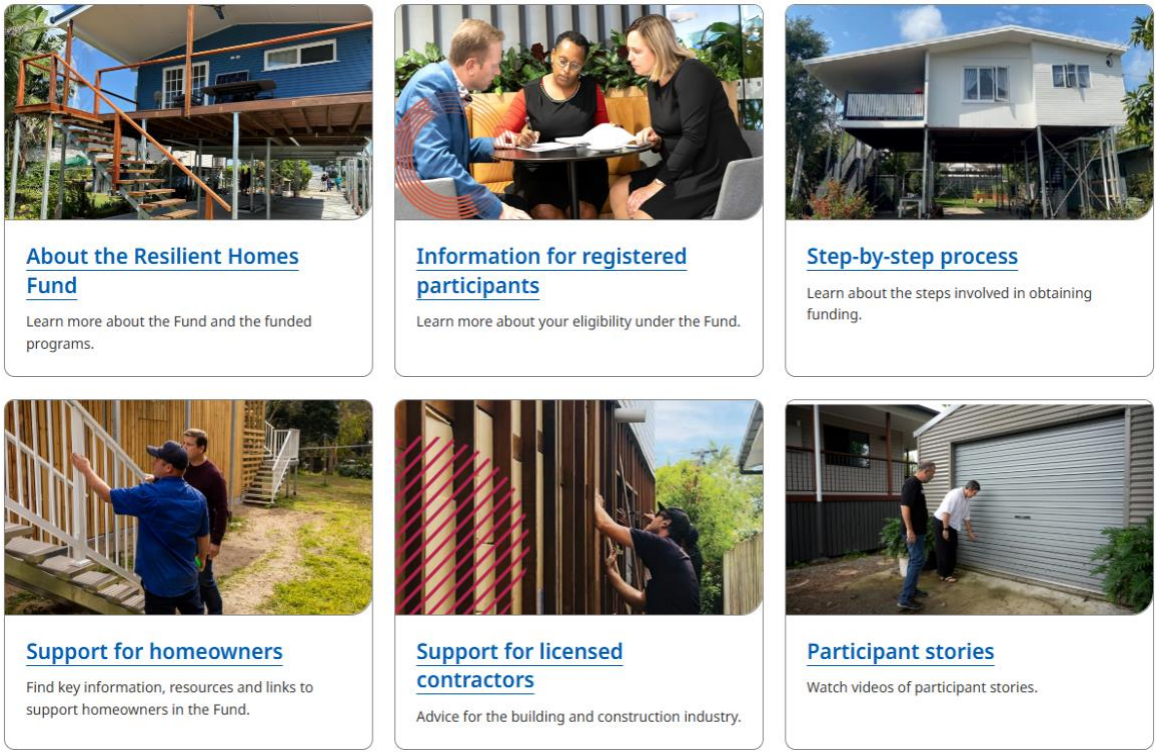


FIGURE 5.5: EXAMPLES OF HOMEOWNER AND BUILDER ONLINE RESOURCES

This progression is reflected in ICE delivery data, which show an initial concentration of 15 community information sessions in 2022, followed by a focused program of eight builder-oriented trade and roadshow events in 2023, and a subsequent shift from 2024 onwards toward more integrative engagement through seven Resilience Expos involving multiple stakeholders including homeowners and builders (refer to Appendix H). ICE also exhibited the RHF at three Brisbane Home Show exhibitions in 2023, 2024, and 2025. While these events were not designed specifically for RHF delivery, ICE's participation extended flood resilience guidance to audiences beyond direct program participants. For example, the 2024 Brisbane Home Show alone attracted 930 attendees to the RHF exhibition.

Builder feedback supports the value of these shared engagement settings in facilitating coordination and confidence between homeowners and builders.

> *"I think the homeowners left feeling a lot better because they had a few leads… [some] homeowners have been struggling to find a builder that was serious about helping them… So those nights, from what I could see was really good for everyone. It's good for the homeowner and it's good for the builder too." – Builder*

ICE's involvement in the IDM pilot (refer to Section 5.5) contributed to shared understanding of resilience guidance and assessment processes among participating insurers, supporting coordination in a delivery context where insurance-led repair processes and government-funded resilience measures intersected. This engagement operated at a limited, pilot scale, but provided a structured mechanism for aligning expectations and technical interpretation across sectors.

In addition, ICE activities created opportunities for wrap-around support services, including NGOs and legal and financial advisors, to participate in community information sessions and resilience expos. These settings enabled informal coordination, referral pathways, and shared understanding of homeowner needs, particularly for households facing additional financial, legal, or personal barriers to engagement. While these services were not responsible for RHF delivery, their presence supported a more integrated response to homeowner enquiries and concerns.

ICE supported sector mobilisation by adapting engagement strategies over time in response to feedback and observed delivery challenges. The progression from homeowner-focused education to builder-focused education to more integrated engagement reflects a learning-oriented delivery approach that responded to observed mobilisation challenges. While ICE did not control sector capacity or delivery outcomes, its evolving engagement model contributed to improved alignment between homeowner expectations and sector readiness by reducing informational and interpretive barriers that constrained progression.

Evaluation insights and program reflections: ICE engagement with builders, insurers, and support sectors increased familiarity with resilience concepts, technical requirements, and program processes, enabling alignment between homeowner expectations and industry interpretation, even as mobilisation outcomes remained shaped by broader market capacity and workforce availability. Early and sustained industry engagement alongside homeowner-facing communication recognises that mobilisation relies on both homeowner readiness and sector capability.

5.2.4 Contribution of ICE to longer-term resilience capability

This section examines ICE's contribution to longer-term resilience capability beyond the immediate mobilisation and delivery requirements of the RHF. While longer-term impacts could not be observed within

the timeframe of this evaluation, the analysis considers whether ICE delivery established foundations likely to support earlier and more informed engagement with flood risk and resilience options over time.

Although longer-term capability was not articulated as a stand-alone ICE objective, delivery reflected an explicit awareness that education and engagement activities could generate value beyond the life of the RHF. This orientation was evident in the design and progressive refinement of guidance materials, the selection of delivery channels, and the emphasis on building shared understanding across homeowners, industry, insurers and support services.

ICE embedded capability primarily through the development and dissemination of publicly accessible resilience guidance intended for use beyond the RHF. Guidance materials were progressively updated, simplified, and de-branded to support continued use by councils, builders, insurers and community organisations. These materials included design guidance, flood risk explanatory resources, and technical information initially developed to support RHF delivery but were structured to remain relevant in broader mitigation and recovery contexts.

Evidence suggests that this material supported earlier consideration of flood risk and resilience options among households outside immediate program participation, indicating a shift toward anticipatory engagement rather than reliance on post-disaster response alone: "*We were getting approached by people saying, 'My local flood mapping is now showing blue on my property… I probably need to start thinking about what I could do to my place'" – Program staff*.

Capability was also supported through industry engagement. Builder forums, technical guidance sessions and participation in industry roadshows contributed to a cohort of builders with increased familiarity with flood resilient construction principles, approved materials and documentation requirements. While these activities did not resolve broader workforce or capacity constraints, they contributed to a distributed base of practical knowledge that could be drawn upon in future recovery and mitigation contexts.

In addition, ICE supported capability through relationship building. Engagement with insurers via the IDM pilot (refer to Section 5.5), and the involvement of wrap-around support services such as NGOs and legal and financial advisors at community events, created informal coordination pathways and shared frames of reference around flood risk and resilience. These relationships enabled resilience concepts to be reinforced through existing institutional and community channels rather than remaining tied to a single, time-limited program.

Program staff explicitly described this work as an effort to avoid knowledge loss at program close and to ensure that learning generated through the RHF remained accessible and usable.

Taken together, the evidence indicates that ICE delivery extended beyond short-term mobilisation to support longer-term resilience capability by embedding knowledge in guidance materials, industry practice and local networks. The durability and uptake of this capability will only become visible over time. However, ICE established foundations that should help to reduce reliance on one-off, post-disaster interventions, and support earlier, more informed engagement with flood risk and resilience options. These foundations align with the evaluative framework's (refer to Section 2) emphasis on strengthening feedback loops from recovery to mitigation.[103]

Evaluation insights and program reflections: ICE contributed to longer-term resilience capability by embedding flood risk and resilience knowledge in publicly accessible guidance, industry practice and interorganisational relationships that extended beyond the immediate delivery needs of the RHF. While the durability and uptake of this capability could not be fully observed at reporting time, evidence indicates that ICE laid foundations for earlier and more informed engagement with flood risk, supporting a shift from reactive recovery toward anticipatory resilience. Treating legacy planning as a core design consideration for education and engagement activities, with explicit strategies for transferability and ongoing use of materials and relationships beyond program lifecycles, can contribute to long-term resilience capacity.

5.3 Evaluating homeowner support initiatives

Homeowners often relied on multiple initiatives to navigate the three RHF interventions. While some of these services were standardised, they were often specialised or even tailored to individual homeowners' needs (refer to Figure 5.1). Such services were important for mobilising some of the population to register for and progress through the program – particularly those with moderate or compounding challenges (refer to Section 4.2). The three main types of homeowner support initiatives were Internal Service Navigators, External Service Navigators and additional coordinated support services. These supports were complementary to ICE (refer to Section 5.1) and amplified the rollout of the RHF. As outlined in Section 2.4, this evaluation does not consider the role of, or participants' engagement with, other DRFA programs which may have supported them in post-disaster recovery such as the Accommodation Package (Category C).

Internal and External Service Navigator Initiative

The Service Navigator and Targeted Rebuild Case Management Initiative (hereafter called Service Navigator) consisted of two subprograms funded under the DRFA Community Health and Wellbeing Package for the 2021-22 flooding events: 1) the Service Navigator Hub (Internal – delivered by the state government's Community Recovery),[104] and 2) Place-based Service Navigators (External – delivered by funded Neighbourhood Centres). The objectives of the initiative were to support vulnerable community members impacted by disaster events to:

1. have a simple point of access and allocation for support
2. have access to appropriate and coordinated social services
3. act autonomously to contribute to the recovery process
4. be supported in their reconstruction efforts through the DRFA Category A Structural Assistance Grant,[105] RHF programs and the DRFA Category C Accommodation Package.

The Service Navigator initiative was not promoted to the public directly by the RHF. Rather, homeowners were referred to Internal Service Navigators by RHF program staff working with all three interventions: VHBB, Home Raising and Resilient Retrofit. Eligibility criteria reflected that of RHF program eligibility (refer to Section 1) as well as homeowners meeting vulnerability criteria related to: age, cultural diversity, disability, education background, family and domestic violence, financial literacy, gender, health and illness, housing and accommodation, independence, lack of community connectedness, interaction with the justice system, psychological wellbeing, and socioeconomic background. Consistent with the literature[106] and the material presented in Section 4.2, Service Navigators were thus a specific initiative to support the effectiveness and appropriateness of the RHF implementation for homeowners who, due to compounding challenges, faced equity issues in progressing with the program.

The Internal Service Navigator Hub was established on 1 April 2023. In addition, 13 Neighbourhood Centres were contracted as External Service Navigators from 11 November 2022 to 30 June 2024, with one delayed to start in January 2024. These External Service Navigators provided specialised and tailored support across 14 LGAs. Based on demand for services, six of these Neighbourhood Centres were offered new contracts as External Service Navigators from 1 July 2024 until 30 June 2025, and one, Yeronga Neighbourhood Centre, further extended to March 2026, while another was supported to continue via alternative funding. As External Service Navigators closed, their ongoing clients were transitioned to the Internal Service Navigators. The initiative was thus adaptive to demand, remaining available within resource constraints to continue supporting homeowner journeys beyond the initial funding period.

As referrals could be made in different ways, some referrals bypassed tracking. Nonetheless, as of July 2024, some 600 homeowners had been referred, directly or indirectly, to the initiative with approximately one-third to Internal Service Navigators and two thirds to External Service Navigators. These greater number of referrals to External Service Navigators reflects the fact that they were placed in existing Neighbourhood Centres, where many of these staff were already in roles that offered support to vulnerable community members. Formal contracting of these Neighbourhood Centres as External Service Navigators, was effective in resourcing them

to offer tailored support to such community members who were also RHF-eligible, helping them in both managing RHF procedures and accessing additional support services. Support was offered across all RHF interventions, with VHBB participants reported to be mostly supported by External Service Navigators, and the majority of homeowners supported across both Internal and External Service Navigators reported to be those undergoing either Home Raising or Resilient Retrofit.

Additional coordinated support services

Service Navigators were able to address some equity issues for homeowners with moderate and compounding challenges by connecting them with additional support services. Such services included legal assistance, financial services, faith-based organisations, and cultural and linguistic services.

The four themes and evaluation insights in Table 5.3 demonstrate the importance of homeowner support initiatives to the mobilisation of some of the population.

TABLE 5.3: SUMMATIVE EVALUATION OF HOMEOWNER SUPPORT INITIATIVES

Evaluative focus	Evaluation insights	Program reflections
The Service Navigator initiative contributed to mobilisation for homeowners with compounding challenges	The Service Navigator initiative was effective and appropriate for mobilising RHF-eligible homeowners with moderate or compounding challenges that needed additional support to progress.	Embedding support roles from the outset can enable rapid mobilisation of support.
Tailored support within communities enhanced homeowner participation and progression	The External Service Navigator initiative was effective and appropriate in mobilising support in local communities, where those with compounding challenges were known to local staff and could be helped to progress through tailored support.	Service organisations in local communities can help to identify eligible homeowners who are already known to have potential challenges, enabling timely access to tailored supports.
Homeowner support initiatives learnt to navigate the program to assist homeowners	Service Navigator staff needed to become experienced in technical program elements and develop their own resources for managing their RHF-eligible homeowners, which reduced efficiency, but was appropriate to offer the necessary support to guide homeowners through the program.	Appropriate training, resources, and systems can be developed to share information on case progress, to facilitate support for the most challenged homeowners.
The Service Navigator initiative was misaligned with homeowner journeys	Service Navigators faced an expanded scope of support beyond what was originally anticipated, and this added to the emotional and administrative strain on frontline workers as they attempted to offer tailored support to challenged homeowners within limited timeframes. Appropriately, within resource constraints, some External Service Navigators were extended to continue to meet these homeowner needs.	Support initiative timelines can be matched with program timelines to ensure availability of consistent tailored support throughout homeowner journeys, particularly for those with complex needs.

5.3.1 The Service Navigator initiative contributed to mobilisation of homeowners

The Service Navigator initiative supported the RHF agencies in catering for homeowners with complex needs by offering additional services beyond those provided by program staff. Internal and External Service Navigators provided specialised and tailored support to homeowners in all RHF interventions who would otherwise have struggled to access available processes and services by themselves, including:

- Overall support in making an RHF application to the eligible homeowner's chosen intervention, and navigating the application process
- Explaining the requirements of different stages of the chosen intervention
- Liaising with the RHF team on behalf of the applicant
- Providing information and sometimes making direct contact to access/locate trades
- Assisting homeowners with liaising with tradespeople
- Referrals and linkage to services for issues relating to vulnerability, that were not directly related to the RHF but impacted homeowners' ability to progress with the RHF

Service Navigators were an effective use of resources that could, appropriately, extend the one-to-one services offered by the RHF Service Delivery team and support ICE outreach. They did this by building key relationships with program staff, attending and hosting ICE events (refer to Section 5.2), helping connect homeowners with suitable builders (refer to Section 5.4), and leveraging existing relationships with representatives from LGAs and other elected officials to advocate on behalf of homeowners. The arms-length relationship of Service Navigators to RHF staff was important in delivering some of these tailored supports, because they could perform activities autonomously, such as support with contracting a builder, that could not be done by program staff due to conflicts of interest.

Evaluation insights and program reflections: The Service Navigator initiative, was effective and appropriate for mobilising RHF-eligible homeowners with moderate or compounding challenges that needed additional support to progress. Embedding support roles from the outset can enable rapid mobilisation of support.

5.3.2 Tailored support within communities enhanced homeowner participation and progression

External Service Navigators were already offering some of these types of support in their regular role as Neighbourhood Centres, prior to being contracted to the RHF delivery. Consistent with studies of the importance of place-based knowledge in disaster response and recovery,[107] they typically had deep knowledge of equity issues within their local communities because they already worked with those who had known vulnerabilities. They were also often at the centre of connecting such people to other support services. Knowing the homeowners' circumstances allowed homeowner support initiatives to coordinate the most appropriate targeted supports. For example, even before they were officially contracted as External Service Navigators, Neighbourhood Centres and other community groups learnt about the impacted communities through practices such as examining flood maps, door knocking, letterbox dropping, and hosting morning teas with potentially eligible homeowners. This face-to-face engagement and relationship building was valuable when they assumed their formal roles, especially for homeowners with compounding challenges to respond to the RHF program (refer to Section 4.2).

Service Navigators were able to offer one-on-one tailored support to homeowners. For example, External Service Navigators became authorised third parties for some homeowners who they helped to complete forms, educate about resilient design principles, assist with decision making on Resilient Retrofit strategies and seek alternative sources of funding to help cover ancillary costs. These practices were especially useful for addressing equity issues for homeowners such as CALD community members and those without digital literacy

or access to computers, and/or trust in government;[108] and by helping to bring those homeowners into and to progress through the program.

Importantly, the specific supports that homeowners with compounding challenges needed varied but could be tailored on a personal basis, particularly by External Service Navigators located within communities.

Evaluation insights and program reflections: The External Service Navigator initiative was effective and appropriate in mobilising support in local communities, where those with compounding challenges were known to local staff and could be helped to progress through tailored support. Service organisations in local communities can help to identify eligible homeowners who are already known to have potential challenges, enabling timely access to tailored supports.

5.3.3 Homeowner support initiatives learnt to navigate the program to assist homeowners

To offer specialised and tailored support, staff in homeowner support initiatives needed to learn about key program elements such as eligibility criteria, application processes, resilient design principles, and building materials. Some homeowners struggled to navigate the RoI and application processes and needed significant support, which required those providing homeowner support to learn the processes themselves: "*I was sitting down with someone trying to go through [it] and I'm struggling... I can't even figure out how to navigate this properly*" – *External Service Navigator.* Staff who were contracted as External Service Navigators needed to rapidly upskill on technical literacy and acquire detailed knowledge of program rules and construction processes.

The Service Navigators' arms-length relationship to the program, meant they could not readily access data on the progress of homeowners they were supporting, reducing efficiency. In response, External Service Navigators developed their own workarounds. These included databases to track progress, guides to explain form requirements to homeowners, making connections to builders within local communities that they knew were reputable and empathetic, and internal systems to manage homeowner caseloads. The responses were appropriate as some of the program architecture did not fully account for the needs of homeowners with compounding challenges (refer to Section 4.2).

Evaluation insights and program reflections: Service Navigator staff needed to become experienced in technical program elements and develop their own resources for managing their RHF-eligible homeowners, which reduced efficiency, but was appropriate to offer the necessary support to guide homeowners through the program. Appropriate training, resources, and systems can be developed to share information on case progress and to facilitate support for the most challenged homeowners.

5.3.4 The Service Navigator initiative was misaligned with homeowner needs

External Service Navigators were contracted by Community Recovery to assist homeowners. In this role, they became the human face of the program for homeowners who they helped to translate program details (sometimes literally for those with English as a second language), calm fears, and guide through the processes. These needs were greater than anticipated and the burden of support placed significant strain on Service Navigator staff who took on roles beyond those originally envisaged by the RHF. While ICE made efforts to coordinate this network through regular meetings and shared resources (refer to Section 5.2), some of the tailored supports needed were beyond ICE. For example, External Service Navigators found themselves

assisting homeowners not only with RHF-related issues but also with broader government services and personal challenges. This expanded scope of vital support generated inefficiencies as it was beyond what was originally anticipated and added to the emotional and administrative strain on frontline support workers.[109]

As Service Navigators were funded for specific periods, they were not always able to align their support to the concurrent timescales of homeowner journeys. Some of the most challenged homeowners needed more and longer tailored support. As program closure loomed, some Service Navigators expressed apprehension that homeowners with compounding challenges to respond were at risk of missing key program deadlines and that they would be unable to offer the appropriate assistance once their contracted support closed. Within resource constraints, the initiative was responsive to this ongoing demand based on homeowner needs, extending External Service Navigators in six Neighbourhood Centres for an additional year and one for a further nine months, as well as transitioning outstanding clients to the Internal Service Navigators.

Evaluation insights and program reflections: Service Navigators faced an expanded scope of support beyond what was originally anticipated, and this added to the emotional and administrative strain on frontline workers as they attempted to offer tailored support to challenged homeowners within limited timeframes. Appropriately, within resource constraints, some External Service Navigators were extended to continue to meet these homeowner needs. Support initiative timelines can be matched with program timelines to ensure availability of consistent, tailored support throughout those homeowner journeys, particularly for those with complex needs.

5.4 Evaluating builders' contribution to delivery and mobilisation

The construction industry is an important part of the delivery of post-disaster resilience programs.[110] Builders and other licensed contractors played a central role in progressing homeowners through Home Raising and Resilient Retrofit. Consistent with Figure 5.1, builders contributed primarily to specialised and, in some cases, tailored forms of mobilisation support, rather than to standardised support across the full RHF population. Their professional expertise helped homeowners translate program guidelines and resilience measures into feasible, site-specific resilience strategies, enabling movement from program understanding to implementation of approved works.

While technical experts and consultants contributed to the early development of resilience guidance, this section focuses specifically on builders engaged in implementing Home Raising and Resilient Retrofit works. Builders' direct engagement with homeowners positioned them in a delivery-facing role that involved interpreting program specifications, clarifying design requirements, and translating policy intent into site-level action.

Builders' experiences differed across RHF interventions, reflecting the degree of alignment between program design and established industry practice. In VHBB, builders did not play a direct mobilisation or support role for homeowners, as councils managed acquisition and demolition once properties were purchased. Demolition contractors described this work as largely "*business as usual*", supported by clear scopes, standardised tender packages, and strong coordination through councils.

By contrast, Home Raising and Resilient Retrofit works required builders to engage with sometimes novel design standards, evolving guidance, and heightened homeowner interaction, placing them in a more intensive support role (refer to Figure 5.1). Once contracted, builders worked directly with homeowners to scope and deliver eligible works, using RHF design guidance and technical resources. For a builder's perspective on the program, refer to *Resilient Homes Fund – A builder's testimonial*.[111] Insights from the evaluation into how builders provided part of the support framework for mobilising homeowners are summarised in Table 5.4 and explained in subsequent sections.

TABLE 5.4: SUMMATIVE EVALUATION OF BUILDERS' SUPPORT IN MOBILISING HOMEOWNER PROGRESS THROUGH THE RHF

Evaluative focus	Evaluation insights	Program reflections
Effectiveness of builders in translating design guidance into site-level delivery	Builders were effective in operationalising RHF resilience measures in Home Raising and Resilient Retrofit by interpreting design guidance and delivering compliant works. Challenges arose where program requirements, approval processes, and standard construction practices were misaligned, which builders experienced as unclear or shifting guidance.	Involving building industry expertise in program design can assist to align policy intent, technical standards, compliance processes, and construction practice. This can inform clear scopes, standard templates, and consistent approval pathways to reduce rework and support more effective delivery.
Builders supported homeowner communication during delivery	Builders became an important source of continuity for homeowners, undertaking communication and expectation management alongside construction delivery. When this went beyond typical industry practices, it generated delivery pressure and slowed progress.	Embedding support roles, such as Service Navigators, to support builders in managing coordination and communication can assist delivery, particularly when engaging with homeowners experiencing challenges.
Builders supported equity by sustaining homeowner progression	For homeowners with compounding challenges, some builders assumed additional administrative, financial and coordination work to keep projects progressing. While this discretionary effort supported equitable participation, it transferred business risk and fatigue onto builders.	Clear processes for managing variations, improved payment visibility, and dedicated administrative support can help sustain builder participation.

5.4.1 Effectiveness of builders in translating design guidance into site-level delivery

Licensed builders were central to turning RHF policy into physical works. As part of the program's standard delivery structure, they were responsible for interpreting and applying resilience measures in line with technical guidance and industry standards. Their work helped homeowners move from approval to completed, compliant projects.

However, builders experienced complexity as program requirements evolved. Early in implementation, design specifications and guidance were not always consistent. During this period, builders found themselves interpreting ambiguous directions or adapting their methods to meet shifting expectations: "*There was a lot of learning in that first year. The first six months I was just pulling my hair out… trying to figure this program out*" *– Builder.*

Builders valued the objectives underpinning the RHF and considered the resilience measures of Home Raising and Resilient Retrofit to be technically sound. Yet, they highlighted that a lack of clarity in specifications and changing administrative requirements led to duplication, uncertainty and inefficiency. Some builders described designing creative solutions for resilient construction details, only to have them rejected when new guidelines were introduced.

Despite these challenges, many builders remained committed and adapted quickly. They worked with program staff to clarify requirements, revise documentation and adjust their processes to stay compliant. This persistence helped maintain progress and ensured that resilient building standards were applied as effectively as possible within the evolving program context. Builders who were knowledgeable in the technical and administrative requirements of the RHF interventions were essential to helping homeowners complete their recommended measures.

Evaluation insights and program reflections: Builders were effective in operationalising RHF resilience measures in Home Raising and Resilient Retrofit by interpreting design guidance and delivering compliant works. Challenges arose where program requirements, approval processes and standard construction practices were misaligned, which builders experienced as unclear or shifting guidance. Involving building industry expertise in program design can assist to align policy intent, technical standards, compliance processes and construction practice. This can inform clear scopes, standard templates and consistent approval pathways to reduce rework and support more effective delivery.

5.4.2 Builders supported homeowner communication during delivery

As the program rolled out, builders increasingly became the primary point of contact for homeowners as construction progressed, taking on substantial communication and expectation-setting tasks alongside construction delivery. They spent substantial time explaining grant funding limits, clarifying scope, and helping homeowners, particularly those with challenges (refer to Section 4.2), to understand what the program could and could not deliver. This was valuable for homeowners who had no prior or little experience in construction.

> *"People [were] expecting the whole house to be rebuilt... things that are outside of the scope of the funds." – Builder*

This communication work was time-intensive but important for helping homeowners stay engaged with the program. Builders described how managing questions, paperwork, and disputes occupied unexpected lengths of time, extending well beyond normal construction interactions, as this representative sample of quotes from different builders indicates; "*I spent hours, hours trying to understand"*; "*The first few months were hard… I was going to give up*; *It was an interesting program at the beginning, [but] incredibly frustrating to work with*". In practice, as builders learnt the new RHF practices and processes, they became an important point of stability for homeowners navigating uncertainty, delays, and changing requirements.

Builders reported that this reliance created pressure and slowed delivery for some homeowners, particularly where communication responsibilities were not clearly defined or supported. The introduction of External Service Navigators helped alleviate this issue by reducing paperwork burdens and setting realistic expectations with homeowners, allowing builders to refocus on delivery.

> *"The Service Navigators have been fantastic… More builders would have run away from a lot of jobs if it wasn't for them." – Builder*

While communication with clients is a routine part of construction work, builders reported that the volume and intensity required in the RHF, particularly in complex cases where homeowners required additional explanation

or reassurance, exceeded standard industry practice. Where communication roles were shared with dedicated support services, delivery became smoother and homeowner confidence was more likely to be sustained.

Evaluation insights and program reflections: Builders became an important source of continuity for homeowners, undertaking communication and expectation management alongside construction delivery. When this went beyond typical industry practices, it generated delivery pressure and slowed progress. Future Embedding support roles, such as Service Navigators, to support builders in managing coordination and communication can assist delivery, particularly when engaging with homeowners experiencing challenges.

5.4.3 Builders supported equity by sustaining homeowner progression

Beyond communication and expectation-setting, some builders provided tailored support by taking on additional work to keep projects moving, particularly for homeowners who might otherwise have stalled or exited the program. This labour extended beyond standard construction practices, as some builders absorbed administrative, financial, and emotional burdens to complete projects. Examples included assisting homeowners to use the portal and complete required paperwork and covering small but necessary costs to avoid leaving homes unfinished. These actions shifted risk onto builders. Some builders described how delays in approvals, variations, and payment processes affected homeowner interactions on site. When timeframes extended beyond what households expected, builders often became the primary point of contact for managing frustration and uncertainty.

> *"They're already emotional because their house has been damaged, they've lost a lot… and then when you start delaying the process through the process itself, then they become emotional… so then that ends up being us taking [it]… we're stuck in the middle." – Builder*

As QRIDA payments depended on homeowner lodgement, business cashflow was a persistent constraint for builders. They explained problems like having unpaid invoices and waiting for release of funds, which limited their capacity to accept new RHF jobs.

> *"I can be three invoices outstanding before I get paid… it just cripples you for cash flow, and you can't do too many at one time because I'm not a bank." – Builder*

Program funding was limited to eligible resilience measures and approved construction scopes. In practice, sometimes on-site compliance requirements or unforeseen conditions arose that were outside the approved RHF amount. When such items fell outside the funded scope, builders faced difficult choices about whether to pause works, seek variations, or absorb additional costs to avoid leaving a home in an unsafe or incomplete state. These situations illustrate the tension between fixed grant amounts and the variable realities of construction delivery. The evaluation does not assess the adequacy of funding limits, but documents how those limits were experienced by builders during delivery.

These experiences show that mobilisation for some homeowners relied on informal contributions from builders to sustain project progress, particularly where households faced compounding challenges or limited capacity to navigate RHF processes. While this support enabled continued participation, it also created business strain and transferred delivery risk to builders.

5.5 Evaluating the insurance delivery model

Within the evaluative framework from WP1 (Section 2), incentives such as insurance premium reductions are one mechanism through which mobilisation may occur in resilience programs.[112] While direct financial or behavioural incentives were not a feature of the RHF, the IDM pilot is examined in this section because insurance processes can function, in practice, as a mobilisation lever by shaping how and when homeowners engage with reconstruction and resilience decisions.[113] The IDM was not designed as an incentive to participate in the RHF. Rather, it was a pilot mechanism trialled in collaboration with private insurers to explore whether insurance-led reconstruction could be aligned with government-funded resilience upgrades for insured homeowners. In this section, the IDM pilot program is explained and evaluated. The potential to scale the IDM for wider application in future resilient housing programs is also considered.

The IDM pilot included 51 insured homeowners participating in the Resilient Retrofit intervention. As part of these homeowners' insurance reconstruction, the insurers' builders carried out the works within the claims process rather than homeowners separately engaging a builder. Although some elements were standardised, many needed to be tailored to the individual homeowners due to the program's novelty.

The IDM working group was established in May 2022, bringing insurers and RHF staff together to work through the legal and technical complexities of combining insurance claims and Resilient Retrofit funding in reconstructing a home. This deliberative process was lengthy due to many considerations, including how to share insurers' data, and the first two legal agreements between DHPW and insurers were signed in October 2022. These delays, while understandable given insurer commercial confidentiality with data, added to the time to settle claims for some homeowners. Nonetheless, following these agreements, homeowners in the pilot program were able to progress their Resilient Retrofit assessment procedures alongside their insurance claims. Data and assessments were shared between insurers and RHF staff, which supported efficiency between the two processes. Some homeowners in the pilot then experienced rapid progress, with the earliest works approved in January 2023.

As a pilot program, the IDM aimed to work with 100 homeowners. Ninety-eight homeowners were identified in collaboration with insurers and invited to participate in the IDM, with 51 completing Resilient Retrofit. The IDM was positively received by insurers, builders, and homeowners. Particularly, many homeowners were grateful for a program that enabled them to combine insurance claims and government funding in rebuilding their homes to be more resilient.

> *"Unfortunately, it took a catastrophe for it to happen, but [the RHF] was something that we genuinely, hands on heart, thought was a great thing." – Insurer*

Despite this overarching positive view, stakeholders' experience of the pilot revealed some challenges. Some of these challenges were grounded in the differences between insurance as a largely like-for-like, post-disaster reconstruction mechanism with specific procedures to follow that are not always compatible with those of a resilient housing program.[114] This section outlines how these challenges were addressed, provides program learnings, and offers considerations for scaling up insurance as a lever for mobilisation in resilient housing programs (refer to Table 5.5).

TABLE 5.5: SUMMATIVE EVALUATION OF IDM PILOT FOR MOBILISING HOMEOWNER PROGRESS THROUGH THE RHF

Evaluative focus	Evaluation insights	Program reflections
Assessment procedures and purposes varied	Insurance claims assessments supported relatively standardised desktop Resilient Retrofit assessments. However, the novelty of the RHF program meant a tailored approach added more value to homeowners.	Data sharing protocols can inform standardised and aligned assessment procedures.
Insurer and builder experiences varied	Lack of knowledge of materials and RHF requirements by builders and homeowners, necessitated additional resourcing, education, and building of confidence in those materials. A tailored approach was therefore necessary to implement the IDM.	Integration of resilience measures into insurance reconstruction protocols can be supported by education – including establishing mutual confidence in materials.
Limited alignment of data and processes between stakeholder groups	Lack of standardised data sharing and aligned processes between government and insurers delayed the identification of eligible homeowners leaving some homeowners, who had started works or settled their insurance claims, ineligible for the IDM.	Data sharing agreements and/or better aligned processes between stakeholders could be prioritised to expedite necessary homeowner checks, and standardised procedures could be developed for homeowners to opt into resilience programs and data sharing when submitting claims.
Scaling up insurance as a lever of resilience implementation requires significant change	While insurance claims have potential to be a vehicle for implementing resilient housing measures, scaling up will require alignment of standardised data and processes well beyond the tailored approach taken in the IDM pilot.	Buy-in by insurers, homeowners, and government policy makers is required to scale up insurance as a lever for mobilising resilient reconstruction after disaster.

5.5.1 Assessment procedures and purposes varied

In the interest of efficiency and to reduce the number of home visits required, DHPW intended to use the insurers' home assessments to determine the home's suitability for Resilient Retrofit, followed by a final desktop assessment. This was successful, as 31 properties had only a desktop assessment, indicating the potential for such assessments to become relatively standardised for insured homeowners. Other properties had a home visit assessment, as DHPW staff recognised that the purpose of Resilient Retrofit assessments varied from that of insurance assessments. Insurance assessments only assessed restoration from the event, with a focus on building like-for-like. In contrast, DHPW assessments considered the home holistically with a view for long-term resilience against future weather events; for example, installing water resistant materials and raising utilities. DHPW assessments went beyond insurance assessments and also considered placement of services, ceiling heights, location of laundry spaces, and non-compliant works to calculate the livable area that would be eligible for resilience works.

Given these different purposes and procedures, the pilot was used to compare the efficacy of desktop or home visits for assessments on four homes. This comparison revealed that desktop data was less reliable than an onsite visit and tended to include some impractical strategies. Importantly, DHPW staff also recognised that home visits were an opportunity to educate the homeowners about resilient designs, and to understand

different households' needs in combining insurance with resilient reconstruction. DHPW staff thus reported educational value from implementing this tailored approach to onsite visits.

Evaluation insights and program reflections: Insurance claims assessments supported relatively standardised desktop Resilient Retrofit assessments. However, the novelty of the RHF program meant a tailored approach added more value to homeowners. Data sharing protocols can inform standardised and aligned assessment procedures.

5.5.2 Insurer and builder experiences varied

Both insurers and their builders discussed resourcing in relation to the IDM. Insurers and builders invested time into learning the requirements of the program, to understand how the homeowner's scope of works could fit with the work being conducted through insurance claims. The process was highly tailored, with builders required to prepare additional quoting documentation to meet RHF technical and scope requirements outside of the standard insurance processes. These materials were then provided to insurers, who lodged the RHF application for assessment. This tailored process added complexity for multiple stakeholders: "*It wasn't simple for our suppliers, it wasn't simple for us, it wasn't simple for our customers*" – *Insurer*. Insurers dedicated staff to working solely on the IDM, including contacting potentially eligible homeowners and then managing their claims and IDM processes concurrently.

> ***"We don't have this as a normal role in our company. So, it was [asking myself]… 'can you do this, plus my normal job?' And for six months this was basically me full time, just calls, emails and going out to meet people… it was pretty hard." – Insurer***

In some instances, the homeowner decided not to proceed with Resilient Retrofit after both the insurer and their builder invested time in scoping different works. For example, one insurer described a homeowner requesting changes to their scope of works 18 times and then ultimately deciding not to proceed, which placed strain on the relationship between the insurer and builder.

As noted in Section 5.4, builders also needed to be educated in the resilient building materials and processes which were often distinct from typical insurance processes. For example, internal wall materials in flood-impacted homes are typically stripped out and disposed of, due to insurance-based hygiene and mould requirements. While correctly applied Resilient Retrofit measures would alleviate this need to dispose of internal wall materials, insurance builders needed to become confident in these materials to work with homeowners to understand and use them. Builders also reported that they were dealing with equity issues, as distressed post-flood homeowners struggled to understand and engage with the Resilient Retrofit intervention while progressing with their insurance claim and restoration works. "*It's quite difficult for a customer and we found that there's a lot of decision inertia that came into play*" – *Builder*. These challenges further illustrated the value of a tailored approach in supporting customers through the IDM process.

Both insurers and builders reported that they used their prior experience in working with homeowners in disaster recovery contexts, together with a schedule of regular communication with DHPW, to manage resourcing, program requirements, and the needs of homeowners within the more complex demands of the IDM (when compared to a standard claims' reconstruction).

Evaluation insights and program reflections: Lack of knowledge of materials and RHF requirements by builders and homeowners, necessitated additional resourcing, education, and building of confidence in those materials. A tailored approach was therefore necessary to implement the IDM. Integration of resilience measures into insurance reconstruction protocols can be supported by education – including establishing mutual confidence in materials.

5.5.3 Limited alignment of data and process between stakeholder groups

There were limitations in data sharing that affected alignment of processes between insurers and DHPW staff. For example, customers did not register for IDM directly as insurers identified potential customers with open claims and had their own criteria for inclusion. Insurers nominated potential homeowners, which then allowed RHF to run additional checks (such as title search) and gain General Manager approval to include them in the pilot. Once approved, the insurers then had to obtain homeowners' consent to share further data (such as their insurance assessment and insurance repair quote), to support alignment with the Resilient Retrofit assessment. These procedures delayed homeowners from registering and proceeding with the IDM, meaning some homeowners had started (or even completed) their restoration, or had accepted a cash settlement for their claim and thus were ineligible for the IDM.

Insurers were experienced in home assessments and claims processing in disaster recovery contexts.[115] However, their processes did not include some checks that were essential for Resilient Retrofit, such as title searches. In addition, until the homeowners opted into the pilot, their data could not be shared due to privacy requirements. While this lack of alignment could be addressed through tailored activities in a small-scale pilot like the IDM, it indicated challenges for wider use of insurance claims as a means of implementing Resilient Retrofit.

Evaluation insights and program reflections: Lack of standardised data sharing and aligned processes between government and insurers delayed the identification of eligible homeowners, leaving some homeowners, who had started works or settled their insurance claims, ineligible for the IDM. Data sharing agreements and/or aligned processes between stakeholders could be prioritised to expedite necessary homeowner checks, and standardised procedures could be developed for homeowners to opt into resilience programs and data sharing when submitting claims.

5.5.4 Scaling up insurance as a lever of resilience implementation requires significant change

Despite the challenges, insurers, builders and homeowners supported the IDM in principle as they saw value in more resilient homes and believed that the RHF was an opportunity to complete resilient works concurrently with insurance reconstruction.

The IDM program demonstrated that insurance could complement resilience programs in the initial identification and assessment of eligibility, in mobilising homeowner engagement with resilience programs and in completing works. Homeowners who used the IDM in the RHF benefited by incorporating increased resilience into their insurance claim and reconstruction works.

Therefore, for future resilient housing programs, there appear to be efficiency gains and benefits to implementing increased resilience measures alongside insurance claims. However, most international programs that have used insurance to mobilise a population to take up resilience measures are government owned or legislated,[116] which can ease some of the challenges in data sharing and process alignment observed in the IDM. There are significant barriers to scaling this pilot into a standardised response for combining private

sector insurance claims with government resilience funds in disaster recovery contexts. Considerations for surmounting these barriers include:

1) aligning assessment procedures for insurance claims and approving resilience works
2) implementing IDM processes on the same timeframe as claims processing and aligning insurance and retrofitting scope of work requirements
3) developing mutual confidence in resilient materials through education and standardised protocols for housing and material types
4) establishing a basis for data sharing[117] to ensure that eligible insured homeowners can be rapidly identified and offered the option to opt into a resilient building assessment at the time of submitting their claim
5) empowering insured homeowners to select Resilient Retrofit and sharing of data at the time they submit an insurance claim.

Evaluation insights and program reflections: While insurance claims have potential to be a vehicle for implementing resilient housing measures, scaling up will require alignment of standardised data and processes well beyond the tailored approach taken in the IDM pilot. Buy-in by insurers, homeowners and government policymakers is required to scale up insurance as a lever for mobilising resilient reconstruction after disaster.

5.6 Conclusions on mobilising the target population

Section 5 examined how mobilisation and equity were operationalised within the RHF. Within this evaluation, mobilisation refers to the practical work of helping people access and navigate a resilience program, rather than homeowner and builder understanding of the concept of resilience. It is an important yet sometimes overlooked part of disaster recovery efforts. This work proved critical to program effectiveness, given the post-disaster recovery context, the voluntary nature of participation, and the varied capacities of homeowners to engage with administrative, technical, and decision-making requirements.

Rather than relying on direct financial or behavioural incentives, the RHF embedded mobilisation through a set of support mechanisms and stakeholders who were engaged in delivery. As shown in Figure 5.1 and evidenced throughout this section, homeowners faced different levels of challenges in responding to the program and therefore required different forms of support. Standardised and specialised supports enabled efficient mobilisation of most participants, while more intensive, tailored support was provided as appropriate to support equitable participation for some homeowners.

Over time, the RHF differentiated these forms of support more clearly. Program staff provided foundational mobilisation through consistent information, guidance, case management, and one-to-one technical assistance as part of implementation. ICE functioned as an important supportive project for mobilisation, demonstrating increased responsiveness by revising materials, segmenting audiences, and using community events as access points to specialised services.

Service Navigators extended this mobilisation capacity, particularly for more challenged homeowners. Their integration with local community organisations enabled tailored assistance grounded in local knowledge, trust, and cultural competence, addressing equity barriers linked to vulnerability rather than financial factors alone.

Builders, while not formally positioned as part of the homeowner support network, also became integral to mobilisation outcomes in the Home Raising and Resilient Retrofit interventions. Builders who became familiar with RHF requirements helped translate policy intent into site-level delivery and, in some cases, took on additional communication and coordination tasks that enabled homeowners to complete their projects, underscoring the importance of delivery-side alignment to program effectiveness. Through one-to-one discussions on site and participation in ICE events, builders also contributed to homeowner understanding of

resilience measures and practical options, which directly supported grant uptake. This educational role complemented formal RHF and ICE communication by providing context-specific explanations at the point of decision and construction.

Overall, Section 5 shows that mobilisation and equity within the RHF were achieved through an interconnected set of supports that evolved and became more differentiated over the life of the program, rather than through any single intervention or stakeholder.

6 Evaluation outcomes and lessons learned from the Resilient Homes Fund

This section provides a summative assessment of the RHF program using the evaluative criteria set out in Section 2 and the evidence presented in Sections 3, 4 and 5. The section is structured to first identify key policy and delivery learnings arising from RHF design and implementation and then to assess progress against the RHF program objectives using the available evidence at the time of reporting.

This section is structured according to policy learnings, impacts, and framework extensions which reflects the evaluative framework that was introduced in Section 2 and is reproduced as Figure 6.1. The section emphasises how policy and delivery settings shaped implementation outcomes, before drawing together a summative assessment about progress toward stated objectives.

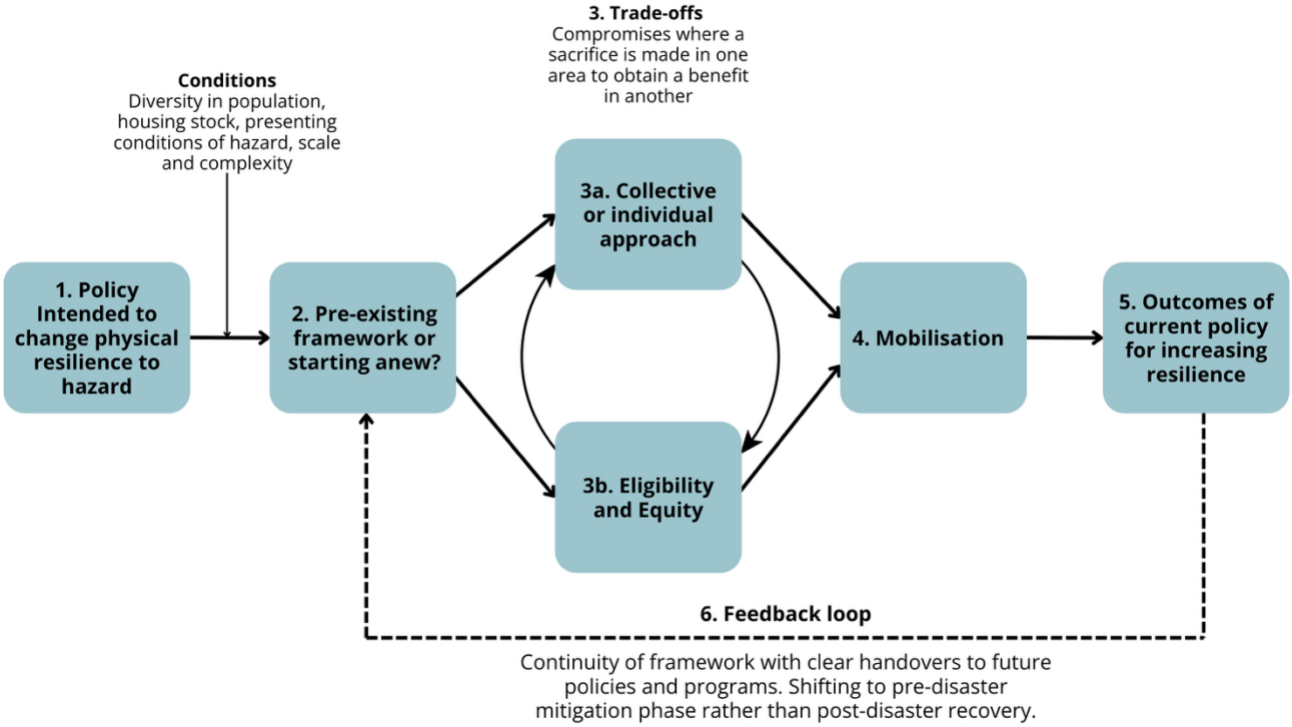


FIGURE 6.1: THE EVALUATIVE FRAMEWORK (ALSO PRESENTED IN SECTION 2, AS FIGURE 2.1)

The RHF was a voluntary, post-disaster recovery program and delivery was still ongoing at time of reporting. Accordingly, this assessment distinguishes between: (a) outcomes that are evidenced as achieved to date; (b) outcomes that are evidenced as emerging or on track; and (c) outcomes that require longer-term monitoring to assess. As program delivery was ongoing at the time of this report, program delivery numbers referenced in this section are specific to the noted dates on which data were provided.

6.1 Policy learnings, potential impacts, and extensions to the evaluative framework

This section identifies the key policy learnings arising from the design and implementation of the RHF policy, drawing from the evaluative framework developed in the report *Resilient housing policies: A framework for evaluation*,[118] to inform future resilient housing program policy design through evaluative learning. These

policy learnings were developed from, but do not repeat, the findings presented in Sections 3 to 5, and followed ACE and OECD guidance on policy evaluation in complex public programs,[119] with attention to implementation learning, plausible longer-term impacts, and the sustainability of resilience effects beyond the immediate delivery period.

For clarity, this section distinguishes between three analytically distinct outputs of the evaluation:

- First, **policy learnings**, which refer to insights about the RHF delivery that shaped implementation and outcomes within this program.
- Second, **potential impacts**, which refer to plausible longer-term effects of the RHF beyond the immediate delivery period, including implications for housing resilience, future risk reduction, and the use of recovery-funded investments to inform longer-term planning.
- Third, **extensions to the evaluative framework**, which refer to aspects of program delivery that proved consequential during RHF implementation but are not fully foregrounded in the existing framework. These extensions do not constitute a new framework. Rather, they indicate where future applications of the framework would benefit from greater analytic attention and potential for its extension based on delivery experience and policy considerations in this case.

Table 6.1 synthesises the policy learnings specific to RHF design and delivery, the potential longer-term impacts beyond the immediate delivery period, and the implications for extending the evaluative framework, mapped against each element of the framework introduced in Section 2.

TABLE 6.1: RHF POLICY LEARNINGS, POTENTIAL IMPACTS, AND EXTENSIONS TO THE EVALUATIVE FRAMEWORK

Evaluative framework element	Policy learnings | Potential impacts | Framework extensions
Policy guidelines	**Learnings:** Rolling out the RHF within a post-disaster recovery context enabled mobilisation of funding and delivery mechanisms that are only available under DRFA, shaping both the timing and form of impact achievable through the program. A key lesson is the need to evaluate these potential long-term effects so future policies can better link disaster recovery interventions to ongoing risk mitigation.
	Impacts: Although the RHF was designed and funded as a recovery program, some of its outputs can inform future mitigation-oriented activity. Examples include the development of ICE guidance materials on flood resilience (refer to Section 5), and evidence on the feasibility and implementation of different resilience measures at dwelling level (refer to Section 4).
	Extensions: Future applications of the framework would benefit from clearer differentiation between recovery-funded resilience programs and mitigation-oriented programs, particularly in how impact and sustainability are assessed over time.
Pre-existing framework or starting anew	**Learnings:** The RHF demonstrates that implementing a start anew program comes with challenges in terms of establishing new databases and procedures, and that this shapes implementation. While a program of funding for disaster recovery can be announced relatively rapidly after a relevant event, it takes time to develop effective systems and processes for delivery and to revise and adapt them as appropriate to the needs of disaster-affected homeowners (refer to Section 3). A key learning is the value of preserving and documenting core delivery systems, data structures, and guidance developed through starting-anew programs,

	recognising that future disaster responses may require selective reactivation of specific components, as appropriate to the disaster context and homeowner needs, rather than wholesale reuse of the full program. Decisions about what to retain, adapt, or retire should be guided by the nature and scale of future events and undertaken within relevant privacy, records, and resourcing constraints.
	Impacts: Ensuring flexible policy implementation, such as incorporating mechanisms to extend timelines, adjust eligibility criteria and accommodate feedback will enhance overall impact by enabling tailoring of some policy elements to the specific conditions of that post-disaster context.
	Extensions: The RHF extends the evaluation framework, by indicating that starting anew programs will experience trade-offs between rapid announcement of a funded program and the time needed to establish effective and appropriate procedures for implementing that program. The framework could be extended to more explicitly account for system-building effort and learning curves when evaluating new or first-of-type programs.
Trade-offs in delivery a) Collective versus individual approach b) Eligibility and equity	**Learnings:** The RHF demonstrates that individual, voluntary, and exposure based eligibility criteria were suitable for a new program, as data were generated on affected properties, and provided time for affected individuals to learn about and become socialised to the new program. A key learning is that future policies can capitalise on pre-existing datasets held by government and local authorities (for example, flood exposure, property characteristics, and hazard information).
	Impacts: Over time, improved use of pre-existing risk and property information, combined with consolidation of established databases and procedures, could support more targeted approaches and reduce administrative burden in future programs.
	Extensions: Future evaluative frameworks would benefit from more explicit attention to how eligibility design choices shape equity outcomes over time.
Mobilisation	**Learnings:** The RHF demonstrates that a range of mobilisation supports, beyond those case management and technical consultations delivered by program staff as part of implementation, are important for homeowner progress, and to surmount equity-based challenges to progression. These include supportive projects, such as ICE, that was built into the RHF program delivery, as well as alternatively funded initiatives, such as the Service Navigator initiative, to enable access to additional social, emotional, financial, housing, and health-based supports. In addition, wider stakeholders such as insurers and builders, needed to be educated and inducted into RHF program criteria and procedures (refer to Section 5). A key learning is the importance of designing supports that can address challenges to progression, including equity-based challenges, at the outset. This includes educating other stakeholders, such as insurers and builders, and developing additional supports, identifying which agencies will deliver them, determining how they will be funded, and ensuring they remain available for vulnerable members of the target population throughout the program.
	Impacts: The RHF policy was strengthened by the allocation of dedicated activities and support agencies, as well as by educating builders in how to work within the

	RHF guidelines. Ongoing impact would be supported by creating and maintaining an ongoing Contractor Register with these capabilities and working with industry to develop standards and registries for builders with resilience-compliant capabilities across different types of hazards. Future policies may also benefit from identifying different forms of existing support that could be activated to support household progression through resilience programs. For example, RHF delivery indicates that access to additional funding pathways, or to temporary housing, or other targeted supports such as access to mental health services, supported some households to progress (refer to Section 5). Some of these supports are already delivered to vulnerable individuals, outside any specific disaster recovery program, and could be further activated to support such individuals during disaster recovery.
	Extensions: Evaluative frameworks should be extended to consider industry capability more broadly as an aspect of mobilisation, including but not limited to building contractors, designers, assessors, suppliers and relevant regulatory and professional bodies that are integral to delivery capacity.
Evaluating outcomes	**Learnings:** At the time of this report, evidence shows that the RHF has achieved the objectives of supporting homeowners affected by the 2021–2022 Southern Queensland Floods to: a) better understand their flood risk; b) implement practical solutions to reduce exposure to future flooding; and c) accelerate community recovery following the 2021-22 events. In addition, the RHF is likely to achieve the objective to reduce future response and reconstruction costs, although this will require future monitoring.
	Impacts: Longer-term impacts, particularly cost reduction and risk exposure outcomes, require monitoring beyond program closure.
	Extensions: The framework could more explicitly incorporate staged outcome assessment, distinguishing short-term delivery outcomes from longer-term resilience effects.
Feedback loop to mitigation	**Learnings:** The RHF was designed and funded as a recovery program, not a mitigation program. Nonetheless, delivery outcomes will provide evidence relevant to future mitigation planning and resilience policy development.
	Impacts: Monitoring of completed Home Raising and Resilient Retrofit works and VHBB outcomes can inform future risk reduction strategies and investment decisions.
	Extensions: Evaluative frameworks should explicitly address how evidence from recovery programs can feed forward into mitigation planning, and consider the legislative, policy and funding conditions under which such a shift to mitigation might be enabled.

6.1.1 Policy guidelines

Like many other resilience programs,[120] the RHF was a post-disaster recovery program delivered within a disaster recovery funding context. The post-disaster context can be enabling because specific sources of government funding are activated following eligible events and there is a strong societal imperative to provide timely assistance to households affected by disaster.[121] This was relevant to the RHF, as DRFA activation

enabled dedicated recovery funding to identify and target homes in need of interventions due to flood damage.

Post-disaster recovery contexts also introduce challenges. Flood-affected homeowners may have reduced capacity to engage with complex decisions and major works in the period following an event[122] (refer to Section 4.2), and disaster recovery funding is typically time-limited.[123] These features constrain the extent to which recovery-funded programs can generate and sustain longer-term resilience outcomes on their own. Hence, it is important to ensure that evidence and learning generated through recovery-funded initiatives can inform future resilience and mitigation policies, which may occur under different legislative and funding settings.

International experience illustrates how recovery-initiated resilience measures can inform longer-term policy development. For example, resilience policies introduced following Hurricane Sandy in 2011 in New Jersey informed the development of 12 different programs, some of which were still continuing in 2025.[124] However, this type of long continuation is not typical. Many post-disaster policies conclude once disaster recovery funding closes,[125] which can limit longer-term impact where delivery processes, data, and program effects are not systematically documented and monitored over time.

6.1.2 Starting anew programs

The RHF was created as a post-disaster DRFA recovery program without a pre-existing delivery framework or consolidated database as eligibility must be determined by event impact and relied on homeowner self-registration rather than leveraging the pre-existing government or insurance datasets that are found in some other programs that do not start anew.[126] By contrast, start anew programs necessitate significant investment in developing processes for program delivery (refer to Section 3). These RHF conditions are thus consistent with expectations for a starting anew program and provide key learnings for future policy evaluations.

The program was established quickly, which is an important signal of government support for households affected by disaster.[127] This rapid commencement was shaped by the DRFA timeframes and requirements associated with establishing recovery programs following an eligible event. As a result, some systems and processes were necessarily developed and refined during implementation rather than being fully specified at commencement. Such gaps between policy design and delivery are well-documented in new or major change programs,[128] and point to the importance of establishing feedback loops from implementation to improve processes and inform policy adjustments.[129]

In the case of the RHF, program staff responded effectively by revising processes to address emerging challenges and by providing feedback that informed policy adjustments to eligibility criteria and extensions to registration and completion timeframes (refer to Section 3). These adaptations enhanced program uptake and progression for participating households.

The time required for process development, policy flexibility and establishment of implementation-to-policy feedback loops was not clear from the case studies underpinning the evaluative framework in WP1. The RHF experience indicates that future policies and policy evaluations should expect a trade-off between the rapid announcement of a new policy and the time taken to establish and stabilise effective delivery systems, particularly within disaster recovery settings.

Given the investment in developing RHF-specific databases and guidance materials, a key learning is the value of retaining and documenting core program components for potential future use. In the Queensland context, this does not imply full reactivation of the RHF in future events. Rather, it highlights the importance of identifying which elements of delivery may be adapted or selectively re-used, subject to DRFA requirements, privacy and records obligations, and the nature and scale of future disasters. Where appropriate, this may require allocation of responsibility and resourcing within ongoing government functions, rather than reliance on time-limited disaster recovery funding.

6.1.3 Trade-offs in program delivery

No resilient housing policy can satisfy all stakeholders at the same time. Policies involve trade-offs in which gains in some areas constrain the outcomes of others.[130] Two key trade-offs were identified from benchmark programs, as follows.

Collective versus individual approach

Consistent with the evaluative framework developed in WP1, a collective approach refers to area-level designation for resilience interventions. The RHF was not designed around pre-existing collective zoning of key properties or areas for intervention. Rather, eligible individual properties were established according to how they were impacted by the 2021-2022 Southern Queensland Floods (refer to Section 1). The RHF was individual and voluntary, allowing eligible homeowners to decide whether they wished to participate (refer to Section 4).

The individual and voluntary design of the RHF was appropriate for a new program. Individual assessments enabled the identification of relevant properties, establishment of a database, and supported learning about the procedures and policy adjustments needed to implement a resilient housing program (refer to Section 3). This approach also gave homeowners, who are often traumatised after a disaster,[131] time and opportunity to learn about resilience options at their own individual pace.

By contrast, a collective approach typically requires pre-identification of relevant properties based on rigorous criteria and involves time consuming, ideally pre-disaster, socialisation of targeted communities into the changes that will affect them.[132]

Eligibility and equity

Eligibility for the RHF was based on the specified criteria of flood risk and verified flood impact associated with the 2021–2022 events rather than being means-tested or based on financial need (refer to Sections 1 and 4). It was thus an equality of exposure rather than equity-based approach to eligibility.

Establishing eligibility based on experience of flood damage rather than financial need also supported the potential for future learning and wider impact. All RoIs, and particularly those deemed eligible for an intervention, provide a basis for future analysis of flood exposure patterns that is relevant for both future policymaking and for local government decision making. These data, if evaluated for socioeconomic variation in the target population, can also support the development of equity-based policies and additional supports to target individuals with specific vulnerabilities, who might otherwise struggle to achieve greater housing resilience.[133]

While adhering to the individually oriented and exposure-based eligibility criteria of the program, RHF staff addressed the equity needs of more vulnerable homeowners through a range of mobilisation activities, discussed below. A key learning is that future programs could more rapidly identify affected individuals and stratify these according to potential vulnerability by drawing on pre-existing datasets already held by government and local authorities (for example, flood exposure, property characteristics, hazard information, and socioeconomic and demographic characteristics of the target population). This would enable more targeted approaches to affected individuals, while reducing administrative burden.

6.1.4 Mobilisation and ongoing outcomes

Mobilisation of target populations is a common feature of resilient housing policies and activities typically include support agencies and/or incentives.[134] Support agencies (refer to Section 5) enable mobilisation by assisting homeowners in taking up a program, particularly those with vulnerabilities that might challenge their ability to progress without such support. Policies designed on an equity basis typically identify these vulnerabilities in advance,[135] and build in suitable supports accordingly.

While the RHF policy was not designed on an equity basis, program implementation included several mobilisation activities for the broader population, including RHF Service Delivery case management, one-to-one technical support, the DRFA-funded Community Health and Wellbeing Package and Service Navigator initiative, and the ICE supportive project. In addition to support in navigating the specific RHF interventions, these activities enabled homeowners in need to access mental health, temporary housing, and additional financial and legal support, and were effective in addressing equity challenges that emerged during delivery (refer to Section 5).

Incentives can also be used to mobilise a target population. While the offer of government funding for resilient measures is an incentive, benchmark programs show that homeowners can be slow to take up such offers, which is related to their other challenges during post-disaster recovery, and the disruption associated with implementing resilient measures or moving home.[136] Additional incentives typically include supplementary grants for those who face financial difficulties[137] or specified insurance premium reductions for those who implement measures.[138] The RHF policy was not designed around incentives, beyond the significant funding offered for each intervention. However, some homeowners accessed means-tested Structural Assistance Grants and 83 Hardship Certificates were also approved. While these grants are not specifically designed to support resilience outcomes, analysis on the role of such funding in incentivising homeowners' ability to progress through the program has not been considered in this evaluation (refer to Section 2.4).

While insurance was not an incentive that could be offered through the RHF, program staff did work with insurers on the IDM pilot (refer to Section 5.5) to examine how resilience measures might be incorporated into insurance claims. The IDM pilot was too small for robust conclusions on how to best leverage insurance within resilient housing programs but provided some important insights into the challenges to be overcome if insurance delivery is to be scaled up for future programs. These grant support activities and insurance pilot study partially supported the impact of the RHF policy and provide learnings for future policies.

While not evident in the evaluative framework, a key mobilisation learning for future policies is the importance of developing building industry capabilities (refer to Section 5.4). Interventions such as Home Raising or Resilient Retrofit required builders who understood the resilient materials and were willing to work within the program guidelines. Developing these program-compliant capabilities post-disaster is challenging due to high demand on builders and associated trades. Yet without builders, homeowners cannot progress through a program within the time limits of the funding. Through ICE, the RHF supported capability development, such as publicly available guidance materials, information sessions, and the establishment of a register of builders able to undertake resilient work, highlighting an important extension for future evaluative frameworks.

A key learning is the importance of designing interconnected supports that can address challenges to progression, including equity-based challenges, at the outset. This includes educating other stakeholders, such as insurers and builders, and developing additional supports needed, identifying which agencies will deliver them, determining how they will be funded, and ensuring they remain available for vulnerable members of the target population throughout the program.

6.1.5 Evaluating outcomes of a resilience program

Within the evaluative framework, assessment of outcomes focuses on the extent to which RHF delivery contributed to progress toward its stated program objectives whilst recognising the voluntary nature of participation, the post-disaster recovery context, and that program delivery was ongoing at the time of reporting.

The RHF program objectives[139] were to support homeowners affected by the 2021-2022 Southern Queensland Floods[140] to:

- better understand their flood risk
- implement practical solutions to reduce exposure to future flooding

- accelerate community recovery following the 2021-22 events
- reduce future response and reconstruction costs.

Evaluation of progress toward these objectives drew on qualitative and quantitative data collected for this evaluation (refer to Section 2) and applies the evaluative criteria of effectiveness, appropriateness, and efficiency to assess:

- the *effectiveness* of the RHF program implementation in supporting eligible homeowners to make informed decisions and progress with their chosen resilience intervention
- the *appropriateness* of the RHF process in accommodating the varied homeowner' needs, while remaining aligned with program intent and policy requirements
- the *efficiency* of the systems, staffing, and processes established to support homeowners' progression, noting the voluntary nature of the program and the absence of pre-existing templates or databases.

In this section, the relevant evidence presented in Sections 3 to 5 is synthesised and explicitly linked to the overarching RHF program objectives to provide a consolidated, contribution-based assessment of progress to date.

While Table 6.1 uses the evaluative framework to surface policy learnings, potential impacts, and implications for future evaluation, Table 6.2 applies the evaluative criteria set out in Section 2 to assess progress against the RHF program objectives. In doing so, it translates the framework-led analysis into a contribution-based outcome assessment.

Table 6.2 summarises key indicators underpinning the evaluation of each objective and identifies their achievement or likelihood that these objectives will be achieved, based on the available evidence at the time of reporting. It should be read as an integrated synthesis alongside the richer empirical results in Sections 3 to 5, rather than a stand-alone performance measure. An objective is assessed as *achieved* where evidence indicates that RHF delivery was effective, appropriate, and/or efficient in contributing to the intended outcome. *Likely to achieve* indicates that the program is plausibly positioned to contribute to the outcome, but confirmation requires completion of delivery and longer-term monitoring.

TABLE 6.2: SUMMATIVE EVALUATION OF RHF AGAINST ITS OVERARCHING OBJECTIVES

Objective	Evidence	Evaluation
Better understand their flood risk	• 5,633 Home Assessment Reports were issued, providing consistent technical information on flood levels, structural vulnerabilities, and resilience options*. • ICE delivered flood resilience education at 49 homeowner, builder or other community-facing events, including formal Design and Industry Guidance materials and sessions (refer to Appendix H)**. • Most registrations received were from suburbs most exposed to flood inundation (Figure 4.3). • Of the 233 survey respondents who had completed or were undertaking Home Raising or Resilient Retrofit, agreement or strong agreement was expressed that: a) their property was more resilient to future floods (66%); b) they better understood their property's flood risk	***Achieved*** – Based on evidence of effective and appropriate delivery, the Home Assessment Reports and ICE activities contributed to improved homeowner understanding of flood exposure and the practical implications for property level resilience. Survey results on Home Raising and Resilient Retrofit validated that homeowners also perceived they had a better understanding of their flood risk.

	(65%); c) they better understood flood resilient design and construction (71%); d) they were less concerned about future floods (49%); and e) they were more resilient to future floods (68%) (refer to Appendix I).	
Implement practical solutions to reduce exposure to future flooding	• VFM Assessments completed for 1,887 properties*. • 869 VHBB offers presented, with 685 VHBB offers accepted and contracts settled*. • 805 Resilient Retrofit grants completed*. • 341 Home Raising grants completed*. • Recommendations were appropriate to inundation level and structure type (Figure 4.6). • Where eligible, homeowners were able to choose the intervention that most suited their personal circumstances (Figure 4.7).	***Achieved*** – Evidence indicates that the RHF was effective and appropriate in enabling eligible homeowners to take up and complete suitable resilience interventions.
Accelerate community recovery following the 2021-2022 events	• 49 ICE events delivered across affected LGAs to support, educate and provide guidance to homeowners and builders, including information provision, Design and Industry Guidance, and facilitated access to builders and support services**. • 60% of survey respondents expressed satisfaction with the process and outcomes of the VHBB intervention. • 41% of survey respondents who had **completed** Home Raising or Resilient Retrofit interventions expressed high satisfaction.	***Achieved*** – Evidence indicates that RHF delivery processes were effective and appropriate in supporting recovery for participating households, particularly through access to information, guidance, and support to implement their chosen intervention. Uptake of guidance materials beyond the RHF may have also increased the capability of builders or general knowledge of the community about physical flood resilience measures.
Reduce future response and reconstruction costs	• 685 homes were permanently removed from future flood exposure through VHBB*. • 1,146 homes completed Home Raising or Resilient Retrofit which increases the likelihood of reduced inundation in habitable areas and/or quicker reoccupation, following future floods*. • Of the 45 Home Raising or Resilient Retrofit survey respondents who experienced a subsequent flood event following the RHF works, agreement or strong agreement was expressed that: a) their property was more resilient (53%); b) they were able to return to the property faster (42%); and c) they felt safer (47%) (refer to Appendix J). This is supported by feedback provided to DHPW from some homeowners who	***Likely to achieve*** – Early evidence indicated that homes with RHF interventions are plausibly positioned to reduce future response and reconstruction costs. Confirmation of this outcome requires completion of all works and longer-term monitoring of performance in future flood events.

reported increased physical resilience to properties (that had participated in Home Raising or Resilient Retrofit) following Tropical Cycle Alfred in 2025.

**Data used to support these figures are based on the monthly report from December 2025.*

***Data used to support this evaluation as received May 2025*

Based on available evidence, the RHF has achieved its first three stated objectives relating to improved understanding of flood risk, uptake of practical resilience measures, and support for community recovery following the 2021-2022 Southern Queensland Floods. The fourth objective, reducing future response and reconstruction costs, cannot be fully assessed while program delivery remains ongoing and until future flood events occur that allow these outcomes to be observed and monitored. However, evidence indicated that the program was well positioned to contribute to this outcome

6.2 Conclusion

Section 6 has presented a summative evaluation of the RHF, applying cumulative evidence from Sections 3, 4 and 5 to the evaluative framework outlined in Section 2. Policy and delivery learnings arising from RHF design and implementation were identified, and progress toward the stated objectives was assessed using the available evidence at the time of either data provision or reporting.

The evaluation identified a set of policy learnings relevant to the design and delivery of future resilient housing programs. These include the implications of operating within disaster recovery funding arrangements, the challenges and trade-offs associated with starting-anew programs, the consequences of eligibility and equity design choices, and the importance of embedding mobilisation supports and industry capability within program delivery. The analysis also highlighted aspects of delivery that are not fully foregrounded in existing evaluative approaches, indicating where future applications of the framework would benefit from greater analytic attention, to support future policy making.

Drawing on this analysis, the evaluation assessed progress toward RHF objectives. Based on available evidence, the program achieved its objectives relating to improved understanding of flood risk, uptake of practical resilience measures, and support for community recovery following the 2021-2022 Southern Queensland Floods. The objective of reducing future response and reconstruction costs cannot be fully assessed while delivery remains ongoing and until future flood events occur that allow these outcomes to be observed. However, early evidence indicates that the RHF is plausibly positioned to contribute to this outcome.

7 Preliminary assessment of the Property Level Flood Information Portals

This section provides a preliminary assessment of the Portals initiative (which was ongoing at the time of reporting) and considers how the initiative may support longer-term resilience.

The Portals initiative was a supportive project of the RHF administered by QRA (refer to Section 1). The Portals were aligned with the DRFA-funded Flood Risk Management Program (FRMP).[141] The initiative also included a Council Grant Program for LGAs that opted not to participate, and funding to update the state-wide FloodCheck Queensland[142] application.

The Portals aimed to provide consistent, property-specific flood information to the public across RHF-eligible LGAs. They needed to be implemented across LGAs with significant variation in data maturity and digital architecture. The Portals were designed to meet six core objectives outlined in the project requirements. These were categorised into two domains:

Technical solution objectives

1. The Portal solution must have the ability to be customised to suit the current-state architecture of each council.
2. The Portal solution must have the ability to vary its functionality to suit the degree and accuracy of input data available for each council both initially and over time.
3. All content and messaging contained within the Portal solution must align with QRA's Regional Guideline for Flood Awareness Mapping and Communication.[143]
4. A low-administrative and cost-effective solution.

User Experience Objectives

5. The Portal solution utilises responsive design principles to ensure a consistent and adaptive user experience irrespective of the device used to access the system.
6. The Portal solution must be intuitive and allow the public to interact to obtain the information they are seeking without prior training or experience.

Evaluating progress against these six objectives provided a basis for assessing whether the Portals were tracking towards technical viability, appropriate across diverse councils, accessible for the public, and positioned for long-term resilience value. As the Portals remained in development at time of reporting, this evaluation provides a preliminary assessment of progress against intended capabilities and identifies risks that may influence future sustainability. The assessment drew on 16 internal project documents provided by QRA and two interviews with five key program staff at different stages of delivery (April 2024 and November 2025). As the Portals were not deployed for public use at the time of reporting, the evaluation was constrained by the absence of in-field user data. It therefore reflects a preliminary assessment based solely on internal documentation, staff insights, and controlled testing.

The preliminary findings are presented in two parts:

- Section 7.1 assesses the technical solution (Objectives 1 to 4)
- Section 7.2 assesses the user experience (Objectives 5 and 6)

7.1 Assessment of technical progress to date

Progress was evaluated against the four technical solution objectives listed above. Based on evidence available at the time of reporting, the Portals were tracking towards achieving their technical objectives, although sustainability risks remained.

Fit with council digital architecture

The Portals were built on a tiered architectural model that recognised the diversity of council digital environments. This avoided the need for bespoke builds for each LGA and reduced implementation complexity. Councils with limited Information and Communication Technology (ICT) capacity could onboard without extensive configuration, while larger councils could integrate more fully with their existing systems. QRA absorbed software development costs, supported councils through the onboarding process, and produced standardised prototypes that could operate across a range of technical environments.

Early evidence suggested strong initial uptake, with 33 of the 39 eligible LGAs opting into the Portal solution at the time of reporting. Decisions not to participate reflected differing local circumstances, including reliance on existing platforms and capacity constraints. These early patterns suggest that the tiered model was broadly accepted across heterogeneous council environments, while also highlighting variation that will warrant closer examination once implementation and use are under way.

Responsiveness to variable flood data maturity

The Portals design scaled functionality to the quality, completeness and maturity of each council's flood dataset. Program staff noted that capability was directly shaped by the sophistication of underlying flood studies. They developed three levels of classification for councils according to their flood data status, to determine the relevant approach for each council (refer to Table 7.1).

TABLE 7.1: PROTOTYPE CONFIGURATIONS FOR THE PORTALS, SUMMARISED BY LGA STATUS AND DATA MATURITY

LGA Flood data status	Summary
Comprehensive	• General Flood Awareness • Flood Exposure based on Potential Hydraulic Risk • Historical Flood Events • Ground Elevation Layers • Cross-sections • Overland Flow • Flood Awareness Report – up to 13 pages
Moderate	• General Flood Awareness • Flood Exposure based on Potential Hydraulic Risk or Flood Hazards • Historical Flood Events • Cross-sections • Flood Awareness Report – up to 13 pages
Limited	• Queensland Flood Assessment Overlay (QFAO) • General Flood Awareness • Flood Exposure information based on QFAO • Flood Awareness Report – 6 pages

> *"The amount of information that each Council has depends on the complexity of the tools that we can provide… in the case of smaller councils that don't have the sophistication of a Level 3 flood study, they have a reduced level of capability… purely because of the absence of data." – Program staff*

Peer review of program-funded flood studies strengthened the reliability of data fed into the Portals. Councils retained ownership of all datasets and chose which layers appeared in the system, so preserving local knowledge, maintaining alignment with council communication practices, and allowing flexibility as data improved. This data-responsive configuration supported relevance across councils with very different levels of technical readiness.

Alignment with QRA Flood Awareness Guidelines

Content, terminology, and messaging were developed in accordance with QRA's Regional Guideline for Flood Awareness Mapping and Communication.[144] Alignment was strengthened through eight engagement sessions held between September 2022 and August 2024, with 384 total attendances and representation from 15 to 26 LGAs per session. These sessions enabled councils to review content, standardise terminology, and provide input on report structure. Integration with FloodCheck Queensland further reinforced alignment with state-level requirements.

Administrative burden, cost-effectiveness, and sustainability

The project was delivered with minimal administrative impact on councils. QRA carried all software development and configuration costs during the building phase. The project had expended $2.17 million of its $10 million funding (which includes FloodCheck) at the time of reporting, with $7.83 million still to be allocated as the project progresses. Councils were not required to co-contribute, which reduced barriers to participation.

Long-term sustainability is less certain. Ongoing licensing and maintenance costs will fall entirely to councils once the system is operational. Program staff expressed concern that smaller or resource-constrained LGAs may be unable to sustain these costs. A reduction in participating councils would fragment state-wide coverage and weaken the Portals' ability to operate as a consistent public information resource.

Key learnings to date: The tiered approach is well suited to councils with highly variable ICT capacity and flood data maturity, enabling early participation and reducing implementation barriers through centralised development. However, the transfer of ongoing costs to councils introduces a material sustainability risk that may undermine long-term coverage and consistency if not actively managed.

7.2 Assessment of user experience progress to date

Early evidence indicated that the user experience design was tracking well. The interface was intuitive for non-technical users, navigation improved across testing rounds, and the system appeared to function consistently across devices. Final usability cannot be confirmed until full deployment, but performance at the time of reporting signalled a clear and accessible public-facing design.

Public comprehension and intuitive navigation

The Portals were developed for members of the public who need clear and comprehensible information about property level flood exposure. The interface, terminology, and report structure were intentionally designed to avoid technical language and to distinguish flood awareness information from planning or emergency management functions. Program staff emphasised the need for clarity about the tool's purpose, noting that it must support awareness rather than guide behaviour during active disasters.

> *"We want to help councils communicate that this tool is for flood awareness for individuals… and make it clear that it's not for event management when there's a disaster actually happening." – Program Staff*

Two rounds of usability testing with a diverse group of residents provided early validation. Participants varied in age, gender, cultural background, education, digital literacy, and homeownership status. Eighty per cent of participants showed improvement between testing rounds, with tasks completed with ease increasing from

27% in Round 1 to 47% in Round 2. These results indicated that refinements to navigation, icons, terminology and report structure improved user comprehension and reduced confusion.

Final confirmation of usability will require end-to-end testing after deployment, when real-world patterns of use can be observed.

Consistent and responsive experience across devices

The Portals incorporated responsive design to ensure consistent operation across desktop, tablet, and mobile devices. This was essential because users might access flood information on smartphones. Testing confirmed that functionality and navigation logic remained stable across device types. Visual differences were minor and related to screen size rather than underlying design. Developers also worked with QRA to maintain consistent formatting and terminology across councils, reducing the likelihood of public confusion when viewing information for different regions.

Key learnings to date: Early usability testing indicates that the Portals' user experience design is on track to support public comprehension, with simplified language, clear separation between flood awareness and emergency response functions and responsive design across devices emerging as critical features. Iterative testing and refinement improved task completion and reduced confusion, emphasising the value of early user engagement in the development of public-facing risk information tools. Final confirmation of usability and performance will depend on observed patterns of real-world use following deployment.

7.3 Overall assessment at time of reporting

Based on the evidence available at the time of reporting, the evaluation suggests that the Portals' initiative is tracking towards delivery of a technically sound and publicly accessible system for property level flood awareness. The design accommodates substantial variation in council digital capacity and flood data maturity, and early usability testing indicates that the interface is likely to be manageable for non-technical users. As the Portals remain in development, these findings represent a preliminary assessment of expected performance rather than confirmed public outcomes.

Two conditions are likely to shape whether the Portals deliver enduring resilience value once operational. The first concerns long-term sustainability. Ongoing licensing, data maintenance, and system updates will become council responsibilities following the build phase. This transfer of costs introduces a material risk for smaller or resource-constrained LGAs and may reduce statewide consistency if participation declines over time. The second condition concerns public uptake. The Portals' contribution to resilience depends on residents being aware of the tool, able to access it, and confident in the information provided. Governance arrangements, including responsibility for the integrity and updating of data, communication and stewardship, will be central to sustaining trust and consistent use.

Future monitoring should therefore focus on council participation, maintenance of supporting datasets, and patterns of public use. Tracking these elements will be critical to determining whether the Portals function as a reliable, state-wide information resource that supports long-term flood awareness and resilience across Queensland.

7.4 Conclusion

Resilient housing policies such as the RHF can be evaluated beyond their initial scope by their impact on wider societal resilience and its sustainability over time. The sustainability of some of this impact can be intentionally developed through the legacy resources arising from a policy, such as the databases, program implementation procedures, and community education resources noted in Section 6, and the Portals supportive project evaluated in this section.

Other impacts, intended or unintended, on individuals and their properties and wider socioeconomic considerations can also be monitored and evaluated

Importantly, the RHF operated as a fixed-term program within the broader and ongoing DRFA policy context. The value of evaluation therefore lies not in extending RHF itself, but in identifying which elements of its design, delivery, and supporting activity warrant continuation, adaptation, or refinement within future recovery and mitigation initiatives under DRFA. In this way, evaluation findings can inform iterative policy development, supporting evidence-based decisions about whether resilience investment is most effective if delivered reactively, in recovery contexts, or proactively ahead of hazard events.

8 Appendices

Appendix A: List of eligible LGAs for the RHF

Note: Cells shaded grey indicate LGAs affected by the flood event.

Flood Events / LGA	Central, Southern and Western Queensland Rainfall and Flooding, 10 November – 3 December 2021	Ex-Tropical Cyclone Seth, 29 December 2021 – 10 January 2022	South-East Queensland Rainfall and Flooding, 22 February 2022 – 5 April 2022	Southern Queensland Flooding, 06 – 20 May 2022
Bundaberg Regional Council				
City of Gold Coast				
Gympie Regional Council				
North Burnett Regional Council				
South Burnett Regional Council				
Balonne Shire Council				
Fraser Coast Regional Council				
Goondiwindi Regional Council				
Lockyer Valley Regional Council				
Logan City Council				
Scenic Rim Regional Council				
Somerset Regional Council				
Southern Downs Regional Council				
Toowoomba Regional Council				
Western Downs Regional Council				
Brisbane City Council				
Gladstone Regional Council				
Ipswich City Council				
Livingstone Shire Council				
Moreton Bay Regional Council				
Rockhampton Regional Council				
Banana Shire Council				

Barcaldine Regional Council				
Barcoo Shire Council				
Blackall-Tambo Regional Council				
Boulia Shire Council				
Carpentaria Shire Council				
Central Highlands Regional Council				
Cherbourg Aboriginal Shire Council				
Diamantina Shire Council				
Flinders Shire Council				
Isaac Regional Council				
Kowanyama Aboriginal Shire Council				
Longreach Regional Council				
Maranoa Regional Council				
Murweh Shire Council				
Noosa Shire Council				
Redland City Council				
Sunshine Coast Regional Council				

Appendix B: Analytic methods for using qualitative data

Qualitative data were triangulated by source and participant (refer to Table 2.2) to gain deep insights from all relevant perspectives, and to minimise source and participant bias,[145] including:

- 210 interviews with 286 participants from the 8 key stakeholder groups.
- 85 observations across a mix of regular agency meetings, field-configuring events, and site visits; and
- 225 documents, including internal documents, publicly facing documents, and weekly and monthly reports.
- 487 open-ended qualitative responses to three survey questions of key relevance to this report (156 VHBB and 331 Home Raising and Resilient Retrofit qualitative survey responses).

These data were analysed using best practice in qualitative methods.[146] Interviews were recorded, with permission, and transcribed verbatim. Rich field notes, including some verbatim quotes, were taken within observations or, where that was not feasible, such as during site visits, field notes were written up within 24 hours of data collection.[147] Open-ended survey responses to the questions pertinent to this report were turned into Microsoft Word documents, with each response coded to the specific respondent characteristics. These data, having been rendered as text for analysis, were then imported, with all the documentary data, into NVivo, a qualitative software package for indexing, searching and coding qualitative data. All data were organised and attributed by data type, stakeholder type, and date of collection to ensure that we could easily search across data sources and stakeholders, as well as trace changes over time.

The use of NVivo software enables fine-grained first-order (empirical) coding of qualitative data and for these first-order codes to then be clustered under second-order (thematic) codes.[148] Thematic codes are typically labelled in iteration with the literature, where possible using pre-existing labels that are already theoretically substantiated, albeit that this is also where theoretical novelty can emerge, for further examination.[149] This thematic clustering involves a constant comparative method of sorting and comparing first-order coded data,[150] drawing from different sources and participants to ensure evidence is triangulated, to enable convergence within the categories and labels for the thematic codes. This method ensures that any single datum presented in the report, such as a quote or documentary extract, is based on a rigorous coding of all data relevant to that theme and representative of the other data within that theme.

As the scope of the report was wide-ranging, we had multiple different first-order codes that were clustered into themes that were then drawn upon for the different sections of the report. While it is beyond the scope of this appendix to explain the full analytic process, we give a flavour of the approach taken below, including explaining the coding process, the uses of triangulation for convergence, and the grounding of triangulation in holism.

For Section 3 which examines program rollout, we drew on data coded to development of systems and processes, staff turnover, coordination challenges, delays in rollout, access to data, and so forth. These could then be clustered into themes that were consistent with the literature, such as the tensions between speed of roll out and need to develop robust systems, emotional burden on staff, knowledge transfer, and so forth.

For Section 4, which examines individual resilience, we coded homeowner data around first-order empirical issues such as unable to occupy home, lived in damaged home, job (in)security, help from friends and family, isolation, ill health (self or dependents), feelings about recent flood, feelings about future flood, struggles with contractors, competence in building, competence in project management, cultural or linguistic issues, and so forth. We were then able to cluster these first-order codes into themes that we labelled according to the theoretical categories already guiding this report, of physical, financial, social, and emotional resilience. We also identified additional issues related to the capabilities of individuals and their life experiences that we were able to thematically cluster based on the literature on resilience and capability endowment.

For Section 5, which examines multiple facets of mobilisation across different stakeholders including program staff, insurers, builders, service navigators and other support organisations, we undertook first-order and then

thematic coding of each separate stakeholder type, to understand their worldview. We then paid close attention to triangulation across stakeholder type and data sources, with a particular focus on convergence.[151] This is because different stakeholders have their own perception of their roles and activities but may be less aware of how these are integrated with the work of others. To minimise stakeholder bias whilst also accurately reflecting the experiences of those stakeholders, it is necessary to ensure convergence across multiple sources of evidence that underpin any claim.

For example, data triangulation confirmed that Culturally and Linguistically Diverse (CALD) homeowners needed additional support. Some of this was apparent from our analysis of homeowner data. We then checked this across evidence from program staff, builders, and support organisations, such as reporting difficulty in explaining technical terms related to resilient materials to members from CALD communities or needing to source translators or cultural experts to assist such individuals. We also checked documents authored by some support organisations, such as case studies or data registers to track homeowners, which showed many repeated contacts with such individuals. This type of convergent triangulation – not only on CALD communities but across the dataset – gave confidence in the thematic categories that emerged, enabling us to use them as evidence in the report, and to provide representative quotes.

Granular coding and the constant comparative method, with triangulation, can overly foreground points of convergence, but lose sight of the broader setting (failing to see the forest for the trees) we ensured that all analyses were constantly drawn back to holistic triangulation. Holistic triangulation is concerned with conceptual (not statistical) generalisability across the dataset, and authenticity of claims to the broader research context, rather than taking some convergent pieces of data out of context. This is enabled by repeatedly locating all thematic findings within the bigger case story, in particular examining the timing in which different themes emerged and how they evolved over time as the RHF program progressed.[152] We also reverted to the literature to look for conceptual categories that may further validate and explain relationships within the findings.[153] These types of analyses, drawing on the data and the literature with a focus on holistic triangulation, enabled us to develop conceptually grounded heuristic diagrams, such as Figures 4.8, 4.11 and 5.1.

Finally, validation with field participants is important as one source of validity and trustworthiness of findings that are reported. Throughout this project we held regular meetings with stakeholders at different levels (69 meetings in total), including to co-design the research, and to guide the emerging analyses, as well as to discuss the findings.[154] Research partners also received first drafts of every section of this report, on which they were able to comment and provide feedback that was independently addressed by the research team. Consistent with naturalistic validation, this process ensured the robustness of the findings.[155]

Appendix C: Depiction of progress through VHBB steps over time

VHBB

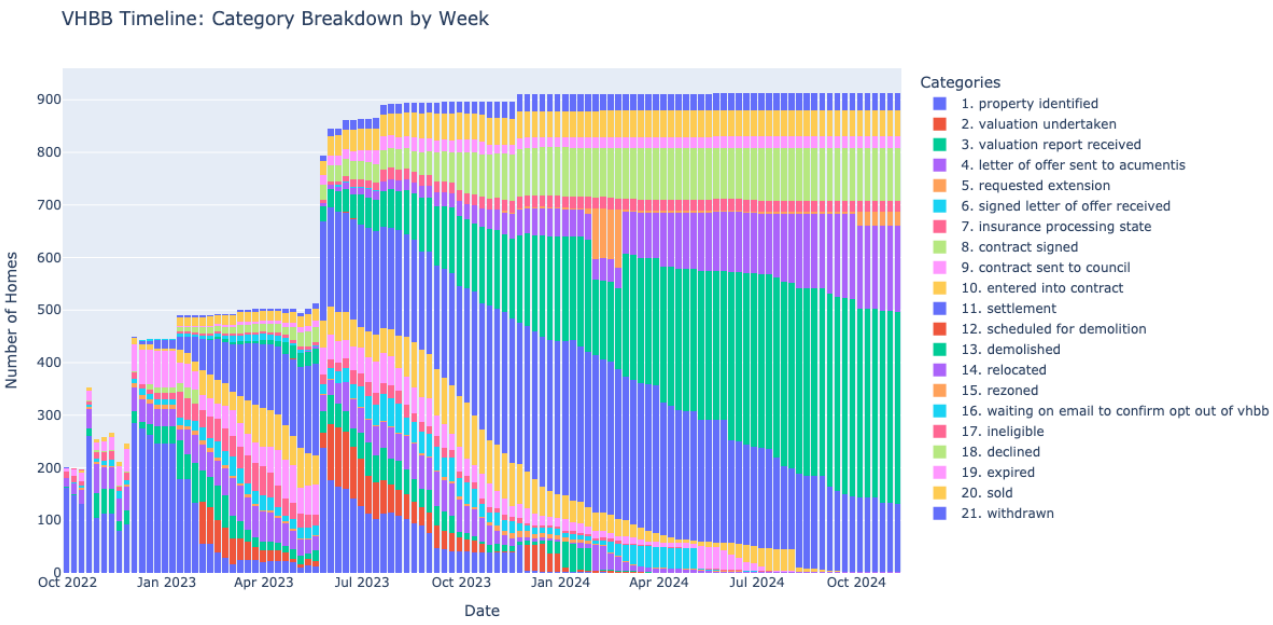


FIGURE C.1: PROGRESSION OF VHBB HOMES OVER TIME

Figure C.1 depicts the progression of homes through the VHBB steps over time, based on a weekly breakdown of the different stages. This figure may be interpreted with reference to the following points, which also note limitations in what may be concluded from these data, which were provided in February 2025, for data that appears current to 8 November 2024.

Two waves of uptake in the program can be observed, occurring around specific times (week ending 2 December 2022 and 26 May 2023, respectively). It is not entirely clear from just the data what led to this, but it is possibly related to the fact that additional properties were emailed to inform them that they were eligible for VHBB. It may also be that this is a product of how the data was processed, or how the program was administered internally, when applications in practice may have increased more gradually.

It appears that the progression of homes in the first and second waves were similar, indicating that the program was relative consistent from an aggregate level. This is seen from an essentially repeating pattern of downward sloping colours over time.

Generally, it appears that states where a home was being “processed” had no buildup in the number of homes despite increasing numbers of homes in the program (the vertical length of each colour does not increase), which indicates that the buy-back program proceeded relatively fluidly.

Appendix D: Correlating inundation depth with proportion of beneficiaries among RoIs

Figure D.1 supplements the analysis in Section 4.1.2 by showing a positive correlation between inundation depth and likelihood of benefiting from one of the interventions in the RHF program. The chart suggests that uptake tended to be higher in areas with more severe inundation.

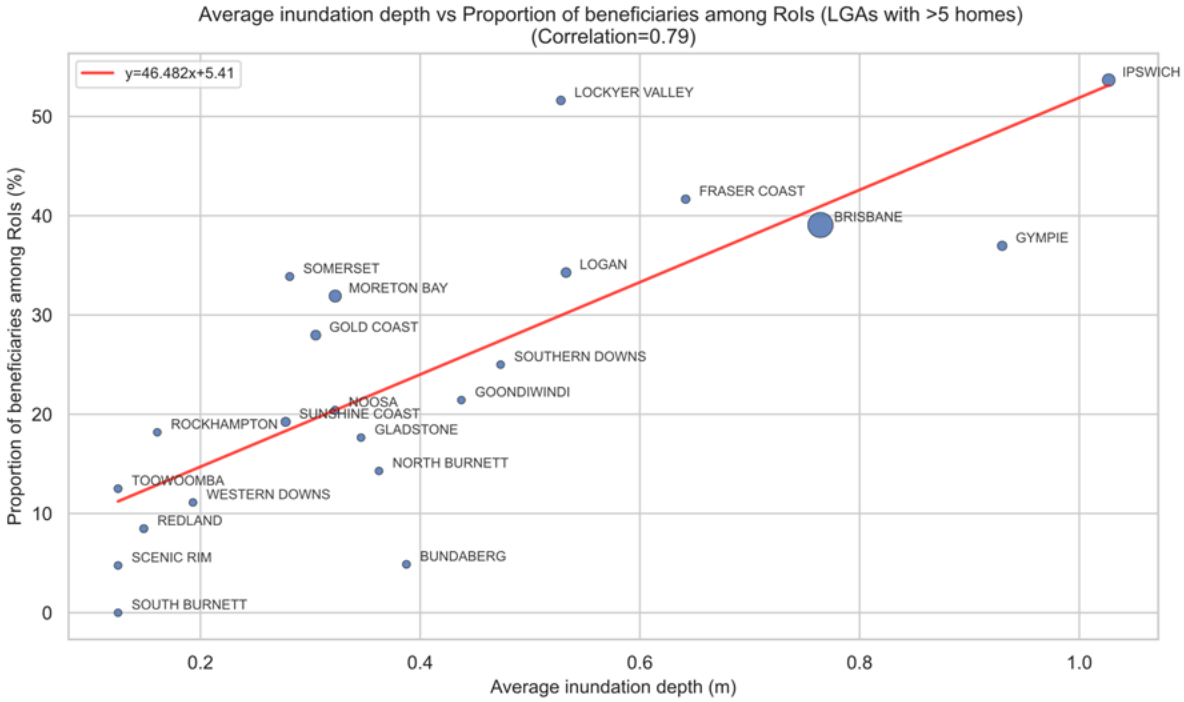


FIGURE D.1: PROPORTION OF BENEFICIARIES AMONG ROIS VS AVERAGE INUNDATION DEPTH BY LGA (DOT SIZE IS PROPORTIONAL TO THE NUMBER OF HOMES FROM THAT LGA IN THE DATASET)

Explanation of Figure D.1

The data we have available only pertain to homes that registered interest for and potentially benefited from the RHF program. To examine the association between inundation levels and likelihood to benefit from one of the RHF we needed to assess the correlation between:

- The proportion of (flood-affected if available) dwellings in each LGA (i.e., #RoIs/#total dwellings); and
- Some notion of "level of inundation" for ALL dwellings in each LGA.

We faced some limitations with the data, as the "level of inundation" is not clearly defined. Given these data limitations, we investigated if there tends to be more homes proportionally benefiting from the program relative to RoIs at higher levels of inundation (that is, we investigated the proportion of registrants (larger group) which ended up being beneficiaries (smaller group) for different LGAs, and their associated inundation level). Note that inundation provided by DHPW was a range. We took the midpoint inundation so that the scatterplot can be plotted (e.g., if a home's range is 1.00m – 1.50m, then the value used is 1.25m). The answer seems to be yes as there appears to be a positive correlation. This suggests that a higher proportion of registrants tend to benefit from the RHF program when inundation is more severe.

Appendix E: Further illustrative analyses of building typology, inundation depth, and interventions offered

Appendix E supplements Section 4.1.3 by presenting further analyses of who chose which Home Raising and Resilient Retrofit intervention, and the characteristics of those properties. This analysis does not include the VHBB. Starting with wall type, the Figure E.1 spine plot shows that brick veneer homes mostly featured in the Resilient Retrofit and Expanded Criteria $150,000 capped interventions. Timber frame, on the other hand, featured prominently in Home Raising, which makes sense as it is the lightest and easiest frame to elevate, and primarily would have been the building type deemed to be practical to raise.

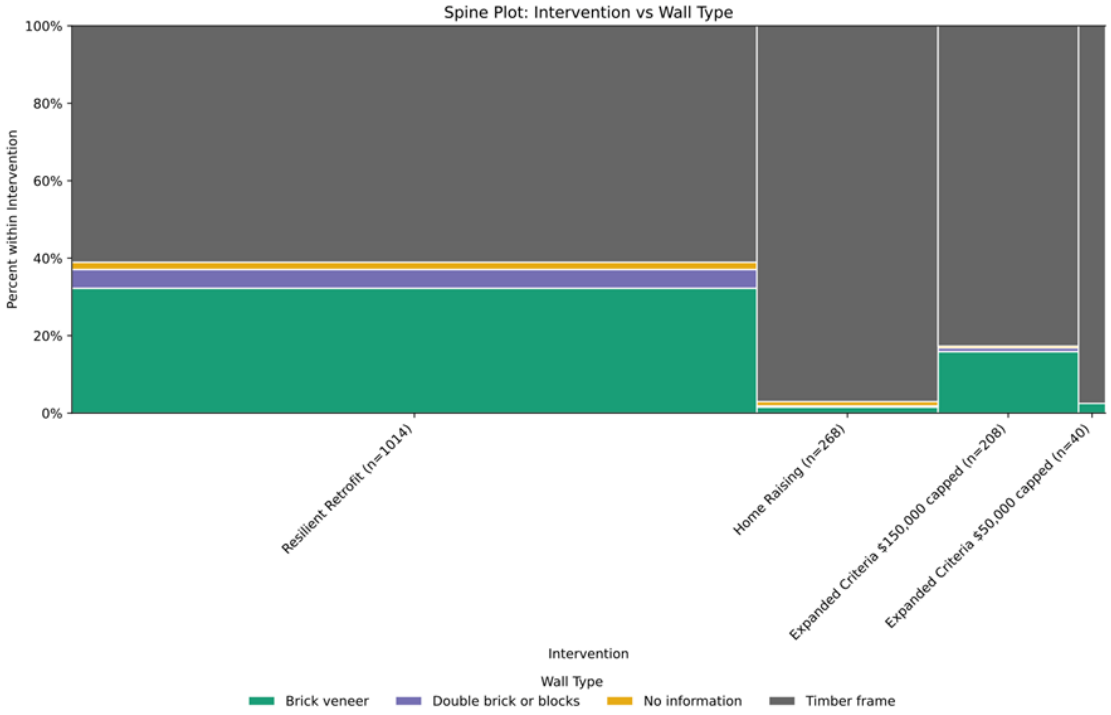


FIGURE E.1: SPINE PLOT OF WALL TYPE BY INTERVENTION

NOTE: Spine plots have areas proportional to counts (here properties in the different interventions). Here the width is dictated by the number of homes in the different interventions, and the height always adds up to 100% (depending on wall type).

In Figure E.2, focusing on foundation type, many homes in all programs were found to be on an elevated foundation, and this type was (unsurprisingly) more prominent in those homes that were raised. The other prominent type of foundation was slab-on-ground. Most of the suspended slabs ended up being demolished.

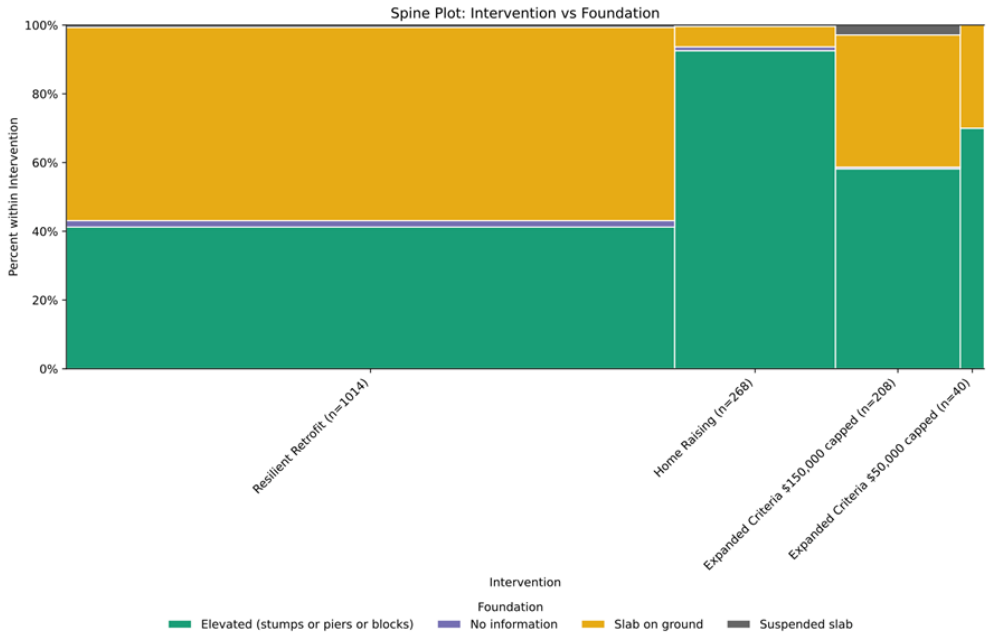


FIGURE E.2: SPINE PLOT OF FOUNDATION TYPE BY INTERVENTION

As depicted in Figure E.3, the inundation depths were broadly consistent across interventions but were less severe in the Expanded Criteria $150,000 and Expanded Criteria $50,000 capped interventions.

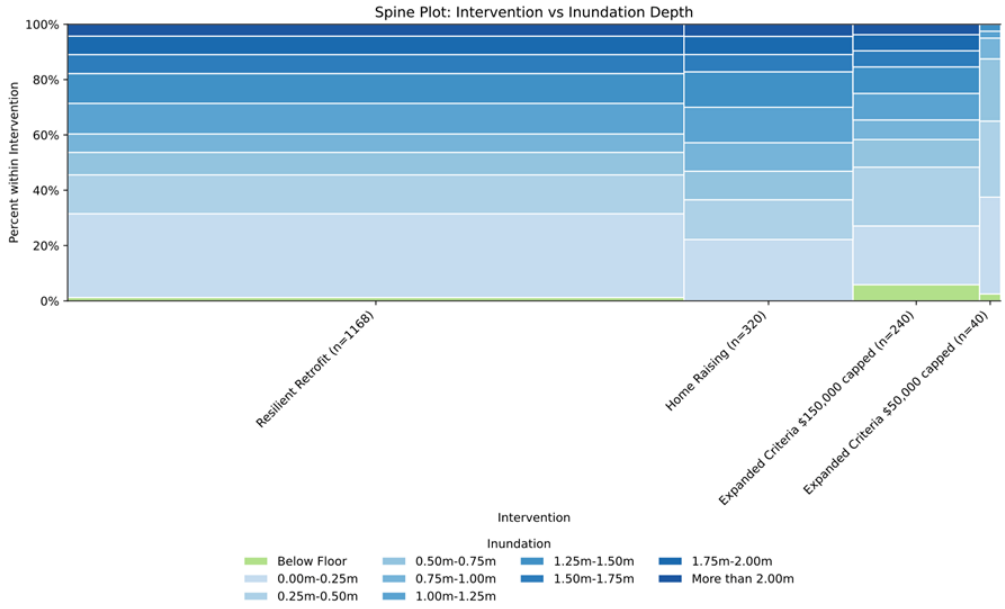


FIGURE E.3: SPINE PLOT OF INUNDATION DEPTH BY INTERVENTION

Appendix F: Multinomial choice modelling of property journey patterns in Figure 4.7

Figure 4.7 shows the path of 6537 households who made decisions to enter one of the following options:

- Expanded Criteria $150,000 capped
- Expanded Criteria $50,000 capped
- Home Raising
- Resilient Retrofit
- VHBB Accept
- VHBB Not Accepted[i]
- Did not proceed with program (Exit)

We modelled the above choice set in their relationship to price changes (pre- vs post event), building type, inundation levels, demographics. From Figure 4.7 (h), 4097 households did not proceed with any part of the program. There was no available information as to why these households did not proceed. This is a heterogenous group likely combining not eligible households as well as voluntarily exits, which could add noise to the data. Ideally, an exit survey to further finetune the set of choices (outcomes) would have been useful to include this group as additional choice categories. To account for possible biases and additional noise, two separate estimations were conducted. A base model and a robustness model. The base model concentrated on those that decided to stay in the program and for whom there was available data across all predictor variables required for the model. The data that had the most missing values was for inundation levels ***(flood)*** and ***prices***. We had a total of 4888 usable observations. Out of this total 2697 were households that did not proceed with the program and 2191 that proceeded through the program and chose one out of the six possible (refer to above).

Tables F.1, F.2 and F.3 provide the descriptive statistics for the Outcomes (1-6), the sample of those that stayed in the program and the sample of those that exited the program, respectively.

We estimate two models, the first, **Model1**, uses all available data and six choices (Expanded (merged 1 and 2 due to small samples), Home Raising, Resilient Retrofit, VHBB Accept, VHBB Not Accepted, did not proceed with program- exit). The second model, **Model2**, uses all the available data for the sample of those that stayed in the program and five choices (Expanded (merged 1 and 2 due to small samples), Home Raising, Resilient Retrofit, VHBB Accept, VHBB Not Accepted).

We estimated ***multinomial choice models*** (for a technical description refer to page 644).[156] This is simultaneously modelling of all the available choices with one used as the reference (known as the base choice). Thus, the estimates showed in the result's tables are *the relative risk ratio compared to that base*. *Resilient Retrofit* was used as the base choice, as this is the entry point to the program from which households can access other choices.[157] All results are with reference to this choice. The team studied specifications and some control variables were not significant predictors of any outcomes in which case they were not included in the final specification.

The project team did not have individual household level demographic characteristics, nor location with respect to key amenities (e.g., transport, hospitals, CBD) available. This is a major shortcoming of the data that was made available for the project. The team therefore used suburb aggregate measures (based on ABS SA2

[i] There were 69 houses under i), k), and l) which moved to Expanded Criteria, Home Raising and Resilient Retrofit after not accepting the VHBB offer. The observations that remain in VHBB not accepted are those that exited the program.

available data and concordances) for the modelling. A number of demographic characteristics were collected and tried in model specifications. Some model specifications included the suburb median household income. However, the team decided a derived measure of poverty indicator that was more relevant. This is based on whether the household is in a suburb where the median income per week is less than $850. Other variables that were included in the modelling where SEIFA (IRSEAD decile), suburb employment rate, household size, share of native English speakers, median age. Some were not statistically significant determinants of *any of the choices* and thus, they were removed from the last version of the model.

Results

Tables F.4 and F.5 present the estimated Models 1 and 2, respectively. The key findings (refer to tables for estimates) are summarised below.

Key findings:

- From Table F.4 which includes those household that did not proceed with the program, we find
- Very high positive odds associated with price growth, inundation levels up 0.75 mts above floor, double brick, split level houses, residing in suburbs with higher employment, but with median income below $850 per week.
- For those that stayed in the program, the findings are (holding everything else constant),
- A one per cent increase in the estimated post- vs pre- price difference, households had highly positive odds of choosing Expanded Criteria or accepting VHBB over Resilient Retrofit; and negative odds (or not significant) of choosing any of the other program options.
- Low inundation levels (up to 0.25 mts above floor) were associated with very high odds of choosing Expanded Criteria over Resilient Retrofit.
- High inundation levels were consistently associated with high odds of choosing Home Raising, and VHBB Accept.
- Among dwellings that are not undertaking resilience retrofit, brick veneer houses are more likely to appear in the Home Raising category relative to Resilient Retrofit than timber houses. This somewhat unusual finding on brick veneer needs to be interpreted with caution as only 25% of houses in the sample were brick veneer so those that ended up with this choice outcome, may be a very small sample. Nonetheless, it is indicative suggests that people's choices may not be those that are most optimal for their building type, which might then affect their ability to progress
- Double brick houses are more likely to appear in the VHBB category relative to Resilient Retrofit than timber houses.
- Split level homes were associated with high odds of choosing either Expanded Criteria (or accepting VHBB) over Resilient Retrofit and compared to single storey houses.
- Households residing in higher ranked socioeconomic suburbs, with higher employment and median age were associated with higher odds of choosing not to accept VHBB.

Tables

TABLE F.1: DISTRIBUTION OF OUTCOMES FOR AVAILABLE SAMPLE – CHOICE MODEL

Outcomes			
	Counts	Share of in Program total	
Expanded Criteria $150,000 capped	192	0.087	A single choice named "Expanded Criteria" is used for the modelling 247 houses
Expanded Criteria $50,000 capped	37	0.017	
Home Raising	247	0.111	
Resilient Retrofit	924	0.421	
VHBB Accepted	614	0.280	
VHBB Not Accepted	177	0.081	
Sample in Program	2191		
Sample Exit Program	2697		
Total (Program + Exit)	4888		

TABLE F.2: DESCRIPTIVE STATISTICS OF REGRESSOR VARIABLES FOR THE SAMPLE THAT STAYED IN THE PROGRAM

	mean	**sd**	**min**	**max**
Price Growth: log(post_price) – log (pre_price) in $'s of 2021				
Price Growth	0.1291	0.0999	-0.3299	0.7741
Inundation Levels				
d_000_025	0.2501	0.4332	0.0000	1.0000
d_025_050	0.1511	0.3582	0.0000	1.0000
d_050_075	0.1000	0.3000	0.0000	1.0000
d_075_100	0.0899	0.2861	0.0000	1.0000
d_100_150	0.1529	0.3600	0.0000	1.0000
d_150_200	0.1068	0.3089	0.0000	1.0000
d_gt_200	0.1287	0.3350	0.0000	1.0000
d_below_floor	0.0205	0.1419	0.0000	1.0000
Building Type (material)				
c_timber	0.7065	0.4555	0.0000	1.0000
c_brickVen	0.2542	0.4355	0.0000	1.0000
c_doubleBrick	0.0393	0.1942	0.0000	1.0000
Building Type (storeys)				
single_storey	0.1438	0.3509	0.0000	1.0000
split_level	0.0383	0.1921	0.0000	1.0000
multi_storey	0.1753	0.3803	0.0000	1.0000
other	0.6426	0.4793	0.0000	1.0000
Suburb Demographic Characteristics (*)				
SEIFA(IRSEAD_decile)	5.9662	3.3396	1.0000	10.0000
Emp_rate	0.6084	0.0851	0.3225	0.7592
hh_size_av	2.5328	0.2627	1.7000	3.3000
Median_age	37.4893	4.7679	25.0000	63.0000
Second English Speaker Rate	0.5277	0.1488	0.1155	0.8127
Poverty (Weekly Suburb Median Income < $850)	0.0009	0.0302	0.0000	1.0000
(*) Due to data availability, only suburb demographic characteristics can be included				
Geographical Controls: ABS Statistical Area 2 = 213				

TABLE F.3: DESCRIPTIVE STATISTICS OF REGRESSOR VARIABLES FOR THE SAMPLE THAT EXIT THE PROGRAM

	mean	**sd**	**min**	**max**
Price Growth: log(post_price) – log (pre_price) in $'s of 2021				
Price Growth	0.5580	0.1492	0.1155	0.8485
Inundation Levels				
d_000_025	0.3530	0.4780	0.0000	1.0000
d_025_050	0.1950	0.3963	0.0000	1.0000
d_050_075	0.1098	0.3126	0.0000	1.0000
d_075_100	0.0775	0.2674	0.0000	1.0000
d_100_150	0.1057	0.3075	0.0000	1.0000
d_150_200	0.0727	0.2596	0.0000	1.0000
d_gt_200	0.0397	0.1952	0.0000	1.0000
d_below_floor	0.0467	0.2111	0.0000	1.0000
Building Type (material)				
c_timber	0.6804	0.4664	0.0000	1.0000
c_brickVen	0.2874	0.4526	0.0000	1.0000
c_doubleBrick	0.0323	0.1767	0.0000	1.0000
Building Type (storeys)				
single_storey	0.1487	0.3558	0.0000	1.0000
split_level	0.0549	0.2278	0.0000	1.0000
multi_storey	0.2529	0.4347	0.0000	1.0000
other	0.5436	0.4982	0.0000	1.0000
Suburb Demographic Characteristics (*)				
SEIFA(IRSEAD_decile)	6.6177	3.0003	1.0000	10.0000
Emp_rate	0.6158	0.0840	0.1654	0.7580
hh_size_av	2.5345	0.2906	1.6000	3.4000
Median_age	38.6151	5.3650	25.0000	63.0000
Second English Speaker Rate	0.1389	0.1136	-0.5535	0.7741
Poverty (Weekly Suburb Median Income < $850)	0.0070	0.0837	0.0000	1.0000
(*) Due to data availability, only suburb demographic characteristics can be included				
Geographical Controls: ABS Statistical Area 2 = 213				

TABLE F.4: MULTINOMIAL CHOICE MODEL ESTIMATES – MODEL 1 (SAMPLE 4888)

Base Outcome: Resilient Retrofit; **Base Predictors**: Inundation below floor, single storey, timber

\ Outcome	Expanded Criteria		Home Raising		VHBB Accepted		VHBB Not Accepted		Exit	
Predictors	*RRR*	*p_value*	*RRR*	*p_value*	*RRR*	*p_value*	*RRR*	*p_value*	*RRR*	*p_value*
Price Growth	**42.7292**	0	0.2214	0.2135	**15063.24**	0	**0.0004**	0	**1.51E+06**	0
Inundation Depth (0.00_0.25m)	**96.7239**	0	**0.3624**	0	**0.1203**	0	**0.0103**	0	**2.45E+07**	0
Inundation Depth (0.25_0.50m)	**0.0692**	0	**0.5737**	0	**10.8991**	0	0.8614	0.8242	**5492.2361**	0
Inundation Depth (0.50_0.75m)	**7.71**	0	**8252.618**	0	**3.26E+06**	0	**93646.784**	0	**1.05E+04**	0
Inundation Depth (0.75_1.00m)	6.3293	6.3293	**53035.11**	0	**5.97E+11**	0	**0.0005**	0	0.7646	0.4631
Inundation Depth (1.00_1.50m)	2.1788	0.7152	**0.4572**	0.0007	**1.63E+12**	0	**0.0401**	0	**0**	0
Inundation Depth (1.50_2.00m)	0.8433	0.8602	**1.33E+05**	0	**67256.61**	0	**0.0001**	0	**0.0018**	0
Inundation Depth (greater than_2.00m)	0.0811	0.1541	**38337.81**	0	**0.0003**	0	1.1489	0.8693	**0.0003**	0
Construction: Brick Veneer	2.5003	0.7373	**88897.26**	0	**0.3223**	0.0016	**0.0006**	0	**0.3223**	0.0016
Construction: Double Brick	**0.3326**	0.0151	**0.0007**	0	**4.08E+05**	0	**0.0002**	0	**4.08E+05**	0
Building type: split_level	**1.99E+07**	0	0.4474	0.3254	**6.85E+05**	0	**0.1127**	0	**6.85E+05**	0
Building type: multi_storey	**0.3335**	0.0004	**0.0037**	0	**0.3661**	0	**1.3565**	0	**0.3661**	0
Building type: other	**0.3359**	0.0214	**0.015**	0	**0.5855**	0	**12589.597**	0	**0.5855**	0
Socioeconomic indicator	**0.1841**	0.0051	**0.0003**	0	**0**	0	**1.9199**	0	**0.3747**	0
Employment rate	0.6759	0.3879	**0.0061**	0	**0.0219**	0	**1.0949**	0	**9.52E+04**	0
Median age	**0.3879**	0	0.3700	0.3735	**0.4106**	0	**5.39E+04**	0	**0.0846**	0
Average house size	0.4305	0.0074	**0.1794**	0	**0.0002**	0	**0.0026**	0	**0.3443**	0
Poverty indicator	0.6021	0.2871	**0.6749**	0	**0.0003**	0	**0.1180**	0	**1.03E+05**	0
(Intercept)	**0.0026**	0	**0.0024**	0	**64874.64**	0	**0.0002**	0	0.3674	0.163

N= 4888

AIC =12535.66

Notes:
SA2 Fixed Effects included. Bold relative risk ratios (RRR) are statistically significant at the 5% level. RRR interpretation: holding everything else constant, the RRR of a predictor indicates the household is (number RRR) more likely to make that choice compared to the Resilience Retrofit.

TABLE F.5: MULTINOMIAL CHOICE MODEL ESTIMATES – MODEL 2 (SAMPLE 2191)

Base Outcome: Resilient Retrofit; **Base Predictors**: Inundation below floor, single storey, timber

\ Outcome	Expanded Criteria		Home Raising		VHBB Accepted		VHBB Not Accepted	
Predictors	*RRR*	*p_value*	*RRR*	*p_value*	*RRR*	*p_value*	*RRR*	*p_value*
Price Growth	4.6698	0.0000	0.0120	0.0000	0.0058	0.0000	0.0002	0.0000
Inundation Depth (0.00_0.25m)	**0.0561**	0.0000	**0.0014**	0.0000	**0.0000**	0.0000	**0.0006**	0.0000
Inundation Depth (0.25_0.50m)	**4.5066**	0.0001	**0.0887**	0.0000	**0.0056**	0.0000	**0.0191**	0.0000
Inundation Depth (0.50_0.75m)	0.7970	0.9161	**0.7585**	0.0000	**0.0000**	0.0000	**0.0813**	0.0000
Inundation Depth (0.75_1.00m)	4.6101	0.5256	**0.1965**	0.0000	**0.0187**	0.0000	**0.0064**	0.0000
Inundation Depth (1.00_1.50m)	0.0191	0.0700	**0.0587**	0.0000	**0.0200**	0.0000	**774.0260**	0.0000
Inundation Depth (1.50_2.00m)	0.6639	0.9005	**0.1331**	0.0000	**0.0771**	0.0000	**114.0851**	0.0000
Inundation Depth (greater than_2.00m)	0.2913	0.0231	**0.0050**	0.0000	**0.7011**	0.0000	**0.0157**	0.0000
Construction: Brick Veneer	1.60E+05	0.0000	**0.2585**	0.0000	**0.5256**	0.0000	**0.4306**	0.0000
Construction: Double Brick	**0.2897**	0.0196	**0.4742**	0.0000	**0.0075**	0.0000	**0.0469**	0.0000
Building type: split_level	**0.1356**	0.0037	**0.2261**	0.0000	**0.0093**	0.0000	**0.1600**	0.0000
Building type: multi_storey	0.8008	0.6825	**0.0000**	0.0000	**0.3612**	0.0000	**0.6153**	0.0000
Building type: other	1.03E+05	0.0000	**0.0001**	0.0000	**0.6652**	0.0000	**0.5413**	0.0000
Socioeconomic indicator	0.4893	0.1779	**0.0009**	0.0000	**0.0465**	0.0000	**0.0045**	0.0000
Employment rate	**0.1873**	0.0169	**0.0030**	0.0000	**0.1173**	0.0000	**0.0873**	0.0000
Median age	0.6112	0.3833	**0.0370**	0.0000	**0.0049**	0.0000	**310.4547**	0.0000
Average household size	1.48E+05	0.0000	**0.0036**	0.0000	**0.7061**	0.0000	**0.0285**	0.0000
Poverty indicator	0.7164	0.5389	**0.0015**	0.0000	**0.0345**	0.0000	**0.0322**	0.0000
(Intercept)	0.0154	0.0000	**0.0262**	0.0000	**0.0102**	0.0000	**0.0517**	0.0000
N = 2191.0000								
AIC= 5526.8680								

Notes:
SA2 Fixed Effects included. Bold relative risk ratios (RRR) are statistically significant at the 5% level. RRR interpretation : holding everything else constant, the RRR of a predictor indicates the household is (number RRR) more likely to make that choice compared to the Resilience Retrofit.

Appendix G: Overview of VHBB and Home Raising/Resilient Retrofit survey analytic methods

In this Appendix we briefly outline the survey data presented in different parts of this report. We also provide an overview of analytic methods including multi-variate analyses and cluster analyses. All findings relevant to the evaluation are presented in the report.

VHBB Survey: Response rate 16% (158 respondents)

Dependent variables

To assess respondent's satisfaction with the VHBB intervention, we use participants' level of agreement with three separate statements as the dependent variables in multivariate regression analyses. Each of the items is measured on a scale of 1 to 5, where 1 is strongly disagree and 5 is strongly agree. The statements are: "*If I was in the same situation again, I would participate in the RHF"; "I am satisfied with my experience with the RHF"; "I am satisfied with my outcome from the RHF process"*.

Independent variables

We use the following variables as the independent variables to assess their impact on respondent's satisfaction with the VHBB:

Cluster membership: In this study we estimate clusters of respondents to identify four case *typologies* based on four survey variables: whether the participant moved postcode pre-post VHBB; household income; perceived fairness of VHBB; perceived ease of the resilient homes process (1= difficult/negative; 5= positive, easy). We use Ward's hierarchical clustering to identify the four typological groups within the data. Ward's method produces a cluster solution that minimises distance between cases within each cluster and maximises differences between clusters.

Perceived fairness of the Voluntary Home Buy Back intervention is a mean scale score computed from four survey items. Participants were asked to how strongly they agreed with the following statements: *"The VHBB offer was sufficient for my needs"*; *"The VHBB offer was fair"; "I received the VHBB offer I expected"; "I had a chance to discuss the offer I would receive in the VHBB"*. The scale has an alpha reliability of 0.89.

Perceived ease of the Resilient Homes Fund was measured on a mean scale ranging from 1 to 5 where higher scores indicate stronger agreement. The scale was computed from participants responses on seven survey items. Participants were asked to state their level of agreement on a scale of 1 to 5 with the following seven statements: *"Registration information was easy to access"; "The registration of interest process was easy to complete"; "The home assessment process was easy to complete"; "My experience with the Resilient Homes Fund met my expectations for timeliness and communication"; "The support and services I received through the Resilient Homes Fund met my needs"; "I was able to ask questions about the Resilient Homes Fund"; "If still available, I would recommend the Resilient Homes Fund to a friend or family member"*. The scale demonstrated high internal validity with an alpha score of 0.91.

Demographic variables: We included a number of individual and household level variables to examine the extent to which population characteristics influenced participants' satisfaction with the experience and/or outcome of the VHBB or the likelihood that they would participate in the intervention again. We included the following variables in the regression models: sex (man; woman); children living the household (yes; no); age in years; employed (yes; no); highest level of education (High school; Tafe; Bachelor; Postgraduate); moved post-code pre-to-post VHBB (yes; no); regional location (regional; urban centre).

Home Raising and Resilient Retrofit Survey: Response rate 10% (312 respondents)

In this study we estimated eight ordinal logistic regression models to examine factors influencing Home Raising and Resilient Retrofit participants' (1) satisfaction with the process; (2) satisfaction with the outcome; (3)

extent to which they would recommend the program to others; (4) the extent to which they felt more resilient after participating in the program.

Dependent variables

The four dependent variables are drawn from items in the survey. Respondents were asked to rate their level of agreement ranging from 1 (strongly disagree) to 5 (strongly agree) with the following statements: *"I am satisfied with my experience with the RHF"; "I am satisfied with my outcome from the RHF process"*; "*I would recommend the RHF to others in the same situation as me"; "My property is more resilient to future floods"*.

Independent variables

Cluster membership: In this study we estimate clusters of respondents to identify *typological* cases based on individual variables drawn from the survey: annual household income; current stage of the RHF; intervention; and the extent to which the participant agreed with the statement *"the funding was sufficient for my needs"*. Our cluster analysis also took into account a scale computed from six items in the survey that measured the *perceived ease of the Resilient Homes Fund*. This scale was computed from six variables where participants were asked to rate their agreement on a scale of 1 (strongly disagree) to 5 (strongly agree) with the following statements: *"Registration information was easy to access"; "The registration of interest process was easy to complete"; "The home assessment process was easy to complete"; "My experience with the Resilient Homes Fund met my expectations for timeliness and communication"; "The support and services I received through the Resilient Homes Fund met my needs"; "I was able to ask questions about the Resilient Homes Fund".* The scale has an alpha score of 0.90. For the RHF data we use hierarchical clustering based on Gowers distance to identify groups within the data. Gowers distance is appropriate for mixed data types and produces a cluster solution based on a weighted function that minimises the distance between cases within each cluster and maximises differences between clusters.

Appendix H: List of ICE events between September 2022 – March 2025[i]

Date	Name of event	Type of Event	Location	Target Audience
13/9/2022	Brisbane Floodies United Facebook	Info Session	Yeronga, Chelmer	Community
24/9/2022	Community Info Session	Info Session	Yeronga 1	Community
25/10/2022	Community Info Session	Info Session	Red Hill	Community
30/10/2022	Community Info Session	Info Session	Oxley	Community
3/11/2022	Community Info Session	Info Session	Sandgate/ Fitzgibbon	Community
5/11/2022	Community Info Session	Info Session	Gympie	Community
10/11/2022	Community Info Session	Info Session	Yeronga 2	Community
12/11/2022	Community Info Session	Info Session	Goodna	Community
16/11/2022	Community Info Session	Info Session	Karalee Community Association	Homeowners
21/11/2022	Community Info Session	Info Session	Ipswich	Homeowners
26/11/2022	Community Info Session	Info Session	Deception Bay	Community
3/12/2022	Community Info Session	Info Session	Logan	Community
5/12/2022	Community Info Session	Info Session	Wynnum	Community
7/12/2022	Community Info Session	Info Session	Lockyer Valley	Community
12/12/2022	Community Info Session	Info Session	Gold Coast	Community
24 to 26/02/2023	Brisbane Homeshow	Exhibitor	Brisbane City	Homeowners/Builders
20/4/2023	Bunnings Trade Expo	Exhibitor	Brisbane	Builders
9/5/2023	Master Builders Roadshow	Exhibitor	Brisbane	Builders
11/5/2023	Master Builders Roadshow	Exhibitor	Gold Coast	Builders
16/5/2023	Master Builders Roadshow	Exhibitor	Sunshine Coast	Builders
17/5/2023	Master Builders Roadshow	Exhibitor	Hervey Bay	Builders
19/5/2023	Master Builders Roadshow	Exhibitor	Bundaberg	Builders
22/5/2023	Master Builders Roadshow	Exhibitor	Rockhampton	Builders

[i] The specific location of one event has been changed to the LGA in which it was held, to preserve confidentiality

30/5/2023	Master Builders Roadshow	Exhibitor	Toowoomba	Builders
23 to 25/02/2024	Brisbane Homeshow	Exhibitor	Brisbane	Homeowners/Builders
10/08/2023	Building Industry Forum	Forum	Oxley	Builders
26/10/2023	Building Industry Forum	Forum	Moreton Bay	Builders
1/11/2023	Building Industry Forum	Forum	Ipswich	Builders
20/3/2024	Master Builders Webinar	Webinar	Online	Builders
16/4/2024	QBCC Tradie Toolbox	Exhibitor	Toowoomba	Builders
17/4/2024	QBCC Tradie Toolbox	Exhibitor	Ipswich	Builders
18/4/2024	Resilience Expo	Expo	Yeronga	Homeowners/Builders
29/4/2024	QBCC Tradie Toolbox	Exhibitor	Logan	Builders
30/4/2024	QBCC Tradie Toolbox	Exhibitor	Maroochydore	Builders
2/5/2024	QBCC Tradie Toolbox	Exhibitor	Gympie	Builders
7/5/2024	Helping Business Access Major Supply Chains (State Development	Exhibitor	Herston	Builders
8/5/2024	Master Builders Roadshow	Exhibitor	Chermside	Builders
9/5/2024	QBCC Tradie Toolbox	Exhibitor	Gold Coast	Builders
13/5/2024	QBCC Tradie Toolbox	Exhibitor	Kallangur	Builders
23/5/2024	Master Builders Roadshow	Exhibitor	Bokarina	Builders
28/5/2024	Master Builders Roadshow	Exhibitor	Gold Coast	Builders
29/5/2024	Master Builders Roadshow	Exhibitor	Toowoomba	Builders
4/8/2024	Get Ready Lockyer Day	Exhibitor	Lockyer Valley	Homeowners/Builders
6/8/2024	Resilience Expo	Expo	Gatton	Homeowners/Builders
29/8/2024	Resilience Expo	Expo	Goodna	Homeowners/Builders
5/9/2024	Resilience Expo	Expo	Sandgate	Homeowners/Builders
8/10/2024	Get Ready Launch	Workshop	Corinda State High School	Students
5 to 13/10/2024	Bunnings Get Ready Week	Promotion	Caboolture and Brendale	
13/2/2025	Resilience Expo	Expo	Gympie	Homeowners/Builders
21 to 23/02/2025	Brisbane Homeshow	Exhibitor	Brisbane	Homeowners/Builders
19/3/2025	Resilience Expo	Expo	Fitzgibbon	Homeowners/Builders
26/3/2025	Resilience Expo	Expo	Ipswich	Homeowners/Builders

Appendix I: Survey respondents' knowledge of resilient design and perceptions of future flood resilience

Of the 233 respondents who had undertaken or were undergoing a Home Raising, Resilient Retrofit, or Expanded Criteria intervention, there was a strong agreement that these interventions had improved their knowledge of their property's flood risk and of resilient design principles and had increased their perceptions of resilience to future floods. These figures are summarised in Figure I.1. These positive assessments are consistent across intervention types, with somewhat higher agreement for those who undertook Home Raising, albeit given the relatively small numbers, not sufficient to draw statistical conclusions about variation across intervention types.

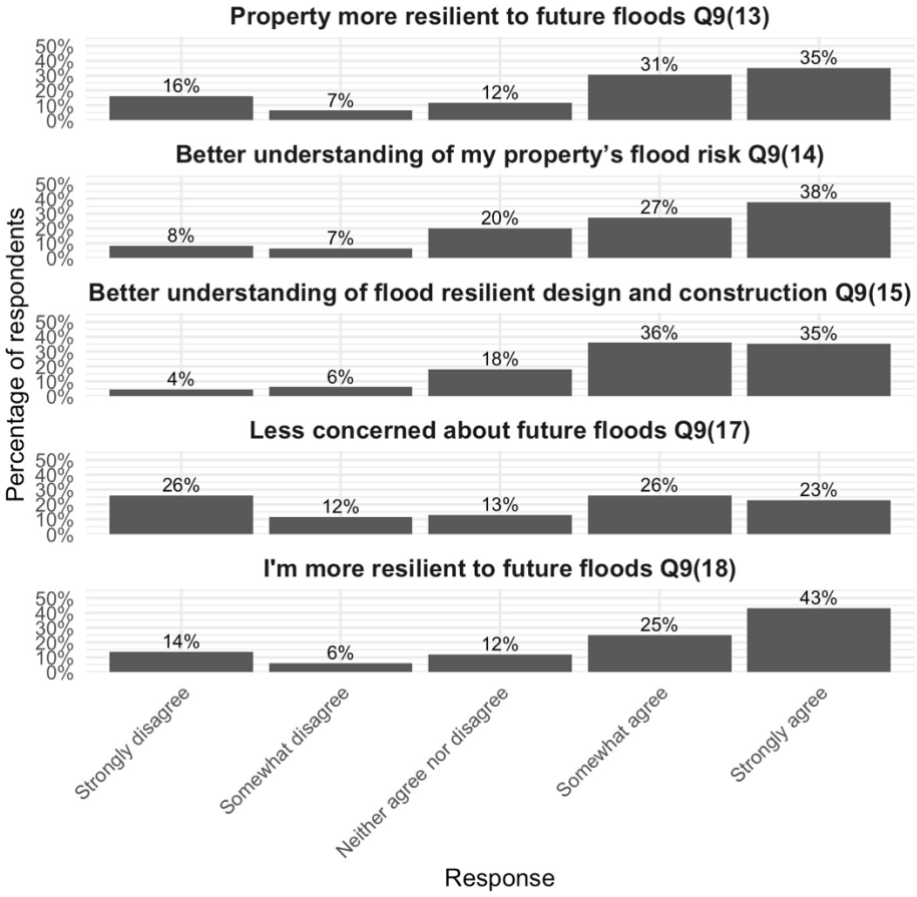


FIGURE I.1: SURVEY RESPONDENTS' PERCEPTIONS OF INCREASED KNOWLEDGE ABOUT FLOOD RISK, FLOOD RESILIENT DESIGN, AND FUTURE FLOOD RESILIENCE (BASED ON PARTICIPATION IN THE HOME RAISING, RESILIENT RETROFIT, AND EXPANDED CRITERIA INTERVENTIONS)

Appendix J: Resilience responses of those who experienced a subsequent flood event

Of the 45 Home Raising and Resilient Retrofit survey respondents who experienced a subsequent flood event, agreement or strong agreement was expressed that, following the RHF works, the recipients had improved flood resilience outcomes. While these numbers are too few to draw statistical conclusions, these results are presented in Figure J.1, as indicative results, that can be further monitored across the broader population for future flood events.

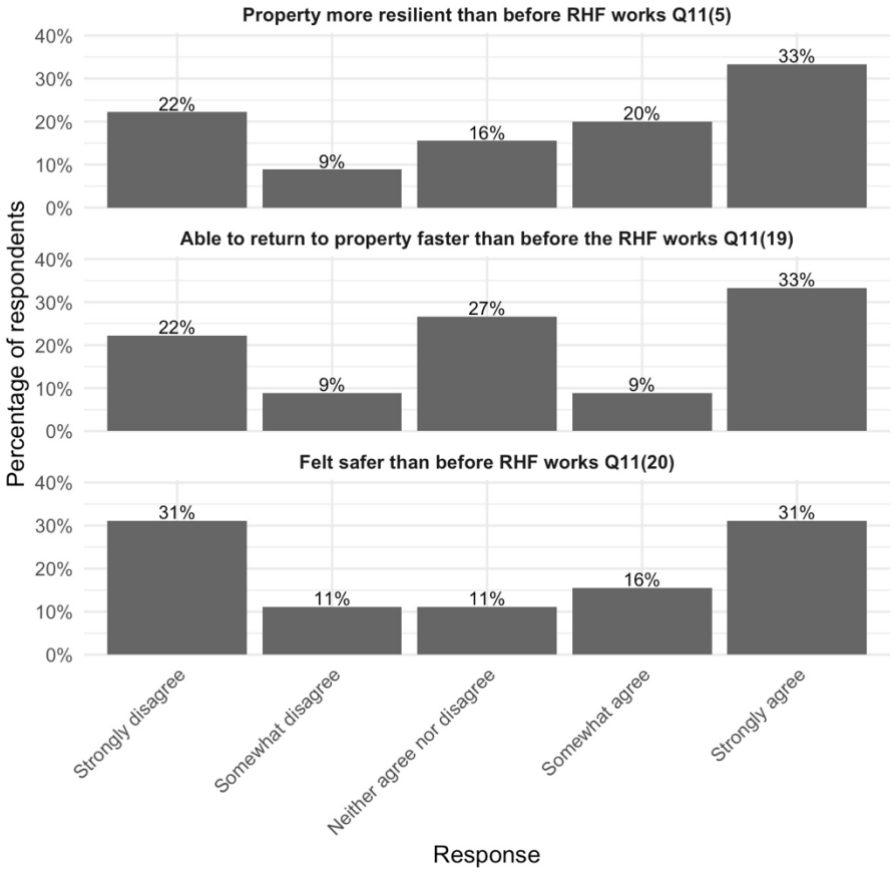


FIGURE J.1: SUBSEQUENT FLOOD EXPERIENCES OF THOSE WHO HAD COMPLETED HOME RAISING OR RESILIENT RETROFIT WORKS

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