



Value for Money Review:  
Poplar and Willow Research Trust  
Contributions





## Knowledge and Insights, Rōpū Taiao (Environment Group)





In the 2023 restructure of Rōpū Taiao (Environment Group), the Evaluation and Insights Team, within the Knowledge and Insights Function, were established to provide an internal evaluation service available to all of Rōpū Taiao (RT). This Value for Money Review was the first prototype of the new service.

We pay respect to iwi, hapū and whānau of the region who have mana over the whenua of Te Upoko o te Ika a Maui, with a particular acknowledgement to:

Rangitāne o Wairarapa, Ngāti Kahungunu ki Wairarapa, Ngāti Toa Rangatira, Taranaki Whānui, Ātiawa ki Whakarongotai and Ngā Hapū o Ōtaki.

**Tukua te wairua, kia rere  
Tukua te mauri, ka oho  
Ruruku ki a Ranginui  
Ruruku ki a Papatūānuku  
Ko tēnei te rangi ka ū  
Ko tēnei re rangi ka mau  
Ko tēnei te rangi ka ruruku  
Ko ēnei taura o te whenua ki te rangi  
I te Taiao ki te Arorangi, i rukutia noa atu  
Tūturu o whiti whakamaua kia tina! Tina!  
Haumie! Tāiki e!**

Send forth the spiritual essence, so it flows  
Send forth the vital life essence, to awaken  
Bound together to the sky above  
Bound together to the earth below  
This is the day, to be sustained  
This is the day, to seize hold of  
This is the day, to be bound together  
These examples are of the land and sky  
From the environment to the universal domains  
That weave us together, from long ago  
Steadfast as a shining light, to behold and be fixed  
Affirmed! By gathering here! And it is so!

<b>Report prepared by:</b>	S Smith	Senior Advisor, Evaluation	
<b>Report reviewed by:</b>	E Harrison	Manager, Knowledge	
<b>Report approved for release by:</b>	D Boone &  D Hipkins	Manager, Ecosystem and Community, Delivery  Director, Knowledge and Insights	    <b>Date: 17 Jan 2025</b>

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Greater Wellington Regional Council. 2024. Value for Money Review: Poplar and Willow Research Trust Contributions. Publication No. GW/KI-G-24-10, Wellington.

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## Executive summary

This Value for Money (VfM) Review evaluates the Greater Wellington Regional Council's contribution to the Poplar and Willow Research Trust (PWRT). The Environment Group (EG) within Greater Wellington implements the person-to-person and funding relationship with the PWRT. The PWRT is a sector initiative comprising 13 Councils, aiming to increase the use and effectiveness of poplars and willows to improve soil stability, flood protection, and environmental restoration throughout New Zealand. The report assesses whether the financial contribution made by EG delivers value for money, focusing on both the current utility and likely future benefit of the PWRT's work.

### Purpose and Scope

The review was commissioned to determine if EG's contribution to the PWRT adds value and evaluate the extent to which the PWRT's objectives align with Greater Wellington's evolving needs. This was undertaken particularly in light of the PWRT's recent increases in funding requirements. The evaluation considers the direct and indirect levies paid by EG and their implications for various EG business units, including those involved in flood protection, soil erosion, land management, Akura Nursery and Knowledge and Insights.

### Key Findings

1. **Relevance:** The contributions are highly relevant to EG's objectives in managing erosion, reducing flood risk, and improving water quality. The research and genetic material provided by the PWRT support the success of these initiatives, particularly in the Wairarapa region.
2. **Efficiency:** The contributions are deemed efficient when considering the overall cost relative to the benefits received. The indirect levy system, which funds the research through sales of poplar and willow poles, is also an efficient method of financing, though there are invisible trade-offs made.
3. **Effectiveness:** The contributions have been effective in achieving desired outcomes. EG's work in sediment, erosion control, flood protection, and environmental restoration has benefited significantly from the PWRT's research and genetic material. The PWRT's focus on future-proofing against climate change and pest incursions, as well as use of PW in new environments, adds to its effectiveness and will be key to it remaining effective.
4. **Cost-Effectiveness:** The review found that the benefits derived from the PWRT's work cannot be replicated for less cost. The collaborative research network, including Greater Wellington and other councils, provides a synergistic value that would be costly to replicate independently. However, there are trade-offs in choosing to fund the PWRT over other potential work that might equally contribute to EG outcomes.

## **Summarised Recommendations**

To ensure continued value for money, it is recommended that:

- EG implements a more transparent and systematic approach to assessing the quality and value of the PWRT's contributions. This should include:
  - developing performance mechanisms within and across functions to agree what value to EG looks like
  - developing accountability mechanisms to measure and report on the agreed performance criteria (value) provided to EG within the context of the performance and accountability systems across EG.
  - ensuring that funding decisions are made with a clear understanding of the trade-offs involved and evidence base available, using a performance and accountability system as the data source.
- EG capitalise on the opportunity for better collaboration between EG's Knowledge and Insights (K&I) and Delivery functions to maximise the use of resources and expertise.

## **Conclusion**

The PWRT contribution is valuable and aligns with EG's strategic objectives. However, to maintain and enhance this value, it is recommended EG integrate its internal processes for assessing, managing and maintaining the value of the contribution. A focus on future needs and potential changes in the environmental landscape will ensure continued value, as will making decision making trade-offs transparent.



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## 1. Introduction

### 1.1 Purpose of the Review

The purpose of this Value for Money (VfM) Review is to evaluate the value of Greater Wellington's contribution to the Poplar and Willow Research Trust (PWRT). This sector initiative leverages the unique properties of poplars and willows to enhance soil stability, sediment, flood protection, and environmental restoration across New Zealand. The primary aim of this evaluation is to determine whether the Environment Group's (EG) financial contribution is delivering value for money, focusing on both current utility and the potential future benefits that the PWRT's work can provide.

Key areas of emphasis include:

- Understanding EG's contribution as part of the broader public good initiative across New Zealand;
- Evaluating how PWRT's efforts specifically benefit EG in areas such as erosion and sediment control, flood protection and recovery, and environmental restoration; and
- Identifying strengths and limitations in the value for money approach to inform future decision-making processes.

This report also offers recommendations for optimising the impact of EG's contribution across various business units and outlines a pathway for enhancing the effectiveness of future investments.

### 1.2 Intended Audience and Key Stakeholders

*Intended Audience:* This VfM Review was commissioned by David Boone, Manager of Ecosystems and Community Delivery, which is part of the Delivery Function within EG at Greater Wellington. The primary audience includes decision-makers responsible for EG's contribution to the PWRT, and other stakeholders who play a role in funding or benefiting from the initiative.

*Key Stakeholders:* The evaluation covers the work of PWRT, Councils and other stakeholders across New Zealand, with a specific focus on EG's activities, including the Akura Nursery, soil and water research within the Knowledge & Insights team, and flood protection, land management and environmental restoration initiatives. Key stakeholders include EG's Delivery and Knowledge & Insights Functions, the Environment Group Leadership Team (EGLT), the PWRT, and other contributing councils.

### 1.3 Structure of the Report

The report is structured to align with the EG Evaluation Framework and the methodology developed for this evaluation.

EG's evaluation framework is:

**1. Criteria | The standards by which we measure & evaluate processes and outcomes**

**2. Reason | Validate knowledge collation and assessment: Answer the *Why* questions?**

**3. Knowledge Collation | Collect and Validate qualitative and quantitative knowledge**

**4. Assessment | Assess all sources to draw conclusions**

**5. Inform & Influence | Evidence supported advice for decision making and reporting**

Based on this framework, the key sections of the report are as follows:

1. **Introduction:** Provides contextual information, background to the review, and an overview of the current operations of the PWRT contribution.
2. **Criteria and Reason Development:** Outlines the methodology and methods used in the evaluation.
3. **Knowledge Collation and Assessment:** Presents the findings and makes evaluative assessments of EG's contribution to PWRT.
4. **Additional Considerations:** Discusses issues that were out of the review's scope but should be considered in future decision-making.
5. **Inform and Influence:** Leverages learnings from the review and stakeholder feedback to offer recommendations on EG's ongoing contribution to the PWRT.

## 2. Background

### 2.1 Summary of Evaluation Approach

The evaluation approach is derived from the EG's Strategic Framework (Appendix 1) and the purpose of the VfM Review is to determine the value of the PWRT research and genetic material to EG. Based on the Review, EG can then determine whether, and how much, to continue contributing to the PWRT.

In this context, the evaluation purpose is to assess the extent to which EG's contribution to PWRT is:

- Fit for *current* use, by assessing the effectiveness (including cost effectiveness) of the contribution against its original objectives.
- Fit for *future* use, by assessing its viability against new and emerging needs.

Hence, the evaluation adopted a methodological approach that incorporated inductive and deductive methods to ensure both previously known and unknown aspects of the contribution were examined.

### 2.2 Evaluation objectives

This evaluation has four key evaluation objectives:

1. **Formative-related:** What was the intent of contribution?
2. **Outcome-related:** What impacts and outcomes have resulted from the implementation and use of the PWRT research?
3. **Process-related:** How well-used is the PWRT's research?
4. **Lessons learned:** What lessons can be identified from the current contribution arrangement that can inform any future decisions about the amount of the contribution?

### 2.3 Scope and Limitations of Review

**Scope:** This evaluation focuses on assessing the value for money of EG's contributions to the PWRT. The scope includes examining the effectiveness, efficiency, and relevance of these contributions, as well as their alignment with EG's strategic objectives and future needs. The evaluation encompasses:

- The direct and indirect financial contributions made by EG to the PWRT.
- The impact of PWRT's research and genetic material on EG's flood protection, erosion control, and environmental restoration efforts.

- The potential future benefits of continued contributions to the PWRT considering evolving environmental and operational challenges.

**Limitations:** Several areas were identified as outside the scope of this evaluation, and the findings are constrained by the limited scope:

- **Cause of Levy Increases:** The evaluation does not investigate the reasons behind the recent large increases in PWRT levies. While the increases prompted this review, the focus remains on assessing the value of EG's contributions rather than scrutinising PWRT's financial management.
- **PW vs. Native Species Debate:** The review does not delve into the broader debate on the balance between supporting poplar and willow species versus native plants or other exotics.
- **Commercialisation of PWRT Services:** Potential alternative funding models, such as further commercialisation of PW funding, were not explored in this review. The focus remained on the current funding structure and its implications for EG.
- **Additional PWRT Services:** The evaluation does not cover PWRT's plans to offer additional services, which were announced after the levy increase. The implications of these plans may be considered in future evaluations.
- **Sector Initiative Contracting Arrangement:** The review does not assess EG's contracting relationship with PWRT or the efficiency of this sector initiative. The focus is strictly on the value derived from EG's current contributions.
- **River Managers Special Interest Group (SIG) Contribution:** The separate River Managers SIG contribution, which EG also funds, was excluded from this review. There is broad agreement within EG that this contribution should not be funded by EG, so it remains outside the scope of this evaluation.

The evaluation focuses solely on the aspects within its defined scope. The implication of this is that the question of value is isolated to the value of the contributions and not its relative value compared to other worthy programmes and projects. These limitations should be considered when interpreting the findings and recommendations of this report. In order to mitigate these limitations as much as possible, Section 5 raises related issues that will need further investigation and consideration.



### 3. Criteria and Reason Development

#### 3.1 Overall Design

##### Value for Money Assessment: Assessing Value

Given the purpose of this evaluation is to assess whether the EG contribution is suitable for current and future use (fit for purpose) and specifically, whether EG's contribution to PWRT provides value for money as an investment, it is necessary to define 'value'. This is particularly because the PWRT research helps EG achieve its own outcomes but also broader public good benefits ratepayers.

Value is typically measured in monetary terms; therefore, this report first focuses on quantifying the identified value delivered by PWRT. Additionally, the evaluation considers intangible benefits and opportunity costs to provide a comprehensive understanding of the contribution's value. Finally, it covers any other relevant issues discovered during the knowledge collation stage.

Key informant interviews (KIIs) revealed that some elements of the PWRT's value are well understood within Greater Wellington, but there is a limited shared understanding across functions and units. This disparity suggested a need for an evaluation design incorporating both inductive and deductive methods. Consequently, the methodological approach adopted a mixed methods strategy, combining quantitative and qualitative data collection.

The evaluation design is informed by a 'systems thinking' perspective, acknowledging the complexity of real-world issues and the interconnectedness of various components. A soft systems methodology was used to explore the tangible and intangible ways in which Greater Wellington's contribution to PWRT can be measured. The evaluation was conducted in two stages:

- **Stage One:** Determine the specific ways PWRT's work contributes to Greater Wellington outcomes.
- **Stage Two:** Assess the quantitative and qualitative value of these contributions as well as any challenges encountered in valuing the benefits for current and future needs.

### 3.2 Research Methods

A range of research methods were employed to complete this evaluation, categorised into four types:

- **Document, Website, and Literature Review:** An extensive review of publicly available information, internal documents, and relevant literature provided the foundation for the evaluation.
- **Intervention Logics (IVL):** Diagrammatic models were developed to illustrate the intended outcomes of the PWRT's research and genetic material, based on KII input and publicly available data (see Appendix 5 through 9).
- **Key Informant Interviews (KII) and Workshops:** 3 KIIs and 8 workshops were conducted, complemented by 1 site visit to gather qualitative, in-place information (see Appendix 3 & 4).
- **Quantitative Data Analysis:** Existing quantitative data were analysed to corroborate the qualitative findings and the linkages between data sources and analysis framework are included as Appendix 4.

#### **Process for Developing and Valuing IVL Components:**

The lead evaluator developed draft intervention logics based on initial research and KII input. These logics were discussed with interviewees, who were given opportunities to review and adjust the components—adding or deleting items to reflect the true costs and benefits of the PWRT contribution.

#### **Valuation was approached in two ways:**

- **Cost-Based Approach:** A ratio analysis was used to compare the costs of the contribution with the benefits received, focusing on efficiency and effectiveness.
- **Opportunity Cost Analysis:** This method considered what alternative uses could be made of the funds currently directed to the PWRT, including the potential costs of contracting out similar research or not funding the PWRT at all.

#### **Gathering Interviewee Perspectives:**

Qualitative data were collected from interviews and site visits, supported by specific data from PWRT and Greater Wellington records related to levies and PW use. The sequential exploratory design allowed for initial qualitative data collection followed by quantitative analysis, ensuring comprehensive coverage and minimising bias.

The IVL model, combined with the evaluation objectives and questions, provided a robust framework for data collection and analysis. This approach ensured that all information was systematically organised and analysed against the evaluation objectives, leading to well-rounded findings. (See Appendix 4).

### 3.3 Evaluation Criteria

Value can be perceived and assigned differently by various stakeholders. To address this, a consensus was developed on the benefits of PWRT's work to Greater Wellington. These benefits were identified during the IVL development and monetised where possible. Costs were then subtracted from benefits to determine the return on investment.

In addition to cost-benefit analysis, opportunity cost analysis was conducted to explore alternative uses of Greater Wellington's contributions. The following three criteria were used to evaluate the value of PWRT's contributions:

- **Relevance:** context and need (sitting at the 'base' of the model). 'Formative' evaluation objective and associated questions.
- **Efficiency:** inputs, activities and outputs identified on the model. 'Process' evaluation objective and associated questions.
- **Effectiveness:** outcomes identified on the IVL model. 'Outcome' related evaluation objective and associated questions.

The relationship between each of the criteria was also considered. Particular attention was focused on the specific relationship between the inputs/outputs and the outcomes, known as **Cost-effectiveness**. This focuses the 'Lessons Learned' evaluation component, which is designed to inform decision-making on sustainability of the investment.

These criteria were selected from The Organisation for Economic Cooperation and Development – Development Assistance Committee (OECD-DAC) international quality standards. The DAC's other two criteria were also incorporated into the framework. "Impact" was incorporated within the effectiveness criterion and sustainability into the sub-category of cost-effectiveness. This approach ensures a balanced evaluation that considers both direct benefits to Greater Wellington and the broader public good.

Final assessments were made based on evidence collected throughout the evaluation, mapping the criteria against the IVL model and evaluation objectives to ensure comprehensive coverage and accuracy.

### 3.4 Assumptions, Scope of Methodology, and Limitations

**Assumptions:** The evaluation operates under several key assumptions, including:

- The PWRT's contribution is sufficient to address its financial needs and continue its research.
- Competitive models ensure cost efficiencies.
- Adequate funding, legislation, and stakeholder capacity are in place to achieve objectives.
- Greater Wellington continues to collect appropriate data for decision-making and recognises opportunities for innovation.

These assumptions were tested during the evaluation and are only further commented on where they were found to be relevant and pertinent to decision-making.

**Limitations:** The scope of the methodology created the following limitations:

- Selection of respondents was influenced by key informant interviews (KIIs), which may have excluded some perspectives.
- Limited publications on environmental levy value restricted the ability to draw direct comparisons with other jurisdictions.
- The evaluation was conducted by generalist evaluators with technical input from Greater Wellington staff, which may introduce some bias.
- The evaluation focused on PWRT's current activities, including future focused research, but with limited emphasis on anticipated PWRT organisational implications of a new manager or future developments the Trust has signalled to manage its funding communication.

These limitations are noted for consideration in interpreting the findings and recommendations.

## 4. Findings – knowledge collation and assessment

This section presents the key findings and assessments of the evaluation. The findings are structured around the intervention logic model, which outlines the inputs, outputs, and outcomes associated with Greater Wellington’s contribution to the PWRT. The evaluation criteria—relevance, efficiency, and effectiveness—are used to assess the performance of the contribution. A dedicated section on cost-effectiveness is also included to inform decision-making.

The findings are based on data collected from multiple sources and methods, including document reviews, KIIs, workshops, and quantitative data analysis. Findings are included if they have been corroborated through triangulation. In some cases, findings are presented with qualifiers where full triangulation was not possible.

### 4.1 Relevance

#### Does PWRT contribute to Greater Wellington Outcomes?

**Inputs:** The financial contributions made by Greater Wellington to the PWRT were found to be up to date, with contractual arrangements in place through 2025. These contributions are integral to supporting the PWRT’s research and genetic material development, which are directly aligned with Greater Wellington’s objectives in erosion control, flood protection, and environmental restoration.

**Outputs:** The outputs generated by the PWRT—including research findings, genetic material, policies, information guides, and procedures—were found to be operating as intended. The quality of the research outputs was consistently high, with no significant concerns raised by stakeholders. The PWRT website was also highlighted as an excellent resource for engaging with farmers and landowners, encouraging their participation in erosion control and restoration projects.

#### Two Caveats for these Outputs:

- While scientists could agree the PWRT research and subsequent work by Greater Wellington was of high quality, it did not always include all scientific perspectives that might be relevant for the outcomes.
- It was generally agreed that the PWRT was not yet good at communicating its more general value to stakeholders, nor its current or future costs. A General Manager has been appointed and is aware of this stakeholder concern. This issue will need revisiting when the PWRT’s contribution is next evaluated.

**Outcomes:** The intervention logic model (see Appendix 5 for an overview of method and specific findings) identifies three significant outcomes resulting from these four key areas of value:

1. **Confident, Research-Based Education:** PWRT’s research provides Greater Wellington staff with the confidence to offer well-informed advice to private landowners. This advice enhances the credibility of Greater Wellington, encouraging landowners to adopt recommended practices for erosion control, flood protection, and water quality improvement. (More detail in Appendix 6)
2. **Genetic Material:** The availability of high-quality, well-researched genetic material ensures that Greater Wellington can confidently select and use the most suitable poplar and willow species for various environmental conditions. This contributes to the success of restoration and protection efforts across the region. (More detail in Appendix 7)
3. **Research:** The comprehensive research conducted by the PWRT, in collaboration with Greater Wellington and other councils, underpins the effectiveness of the genetic material and the advice provided to landowners. This research also supports Greater Wellington’s broader land management and restoration strategies. (More detail in Appendix 8)
4. **Insurance Function:** The PWRT’s work provides an insurance function by ensuring that Greater Wellington’s investment in poplar and willow plantings is robust and resilient. This reduces the risk of failure due to unforeseen environmental changes, such as climate shifts or pest incursions, and ensures that Greater Wellington can quickly adapt to new challenges. (More detail in Appendix 9).

This can be expressed as a summarised IVL diagram, with more detailed explanation of the methodology in Appendix 5.

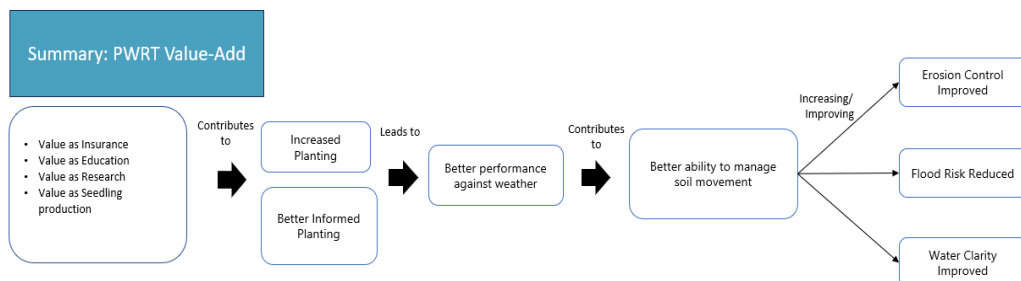


Figure 1: Summary of the individual IVL’s outlined in Appendix 5 through 9.



Overall, the relevance of PWRT's contributions to Greater Wellington's outcomes is demonstrated in the alignment between the research outputs and Greater Wellington's strategic objectives.

## 4.2 Efficiency

**Efficiency is the Relationship between Inputs and Outputs:** The evaluation found that Greater Wellington's contributions to the PWRT are efficiently utilised, with a favourable cost-benefit ratio. In addition, the indirect levy system, where the sale of poplar and willow poles helps fund PWRT's research, was highlighted as an efficient financing mechanism. There are invisible trade-offs that would benefit from being transparent, however, PWRT funding continues to take priority.

Regardless of its efficiency, however, funding PWRT may still be having unintended negative consequences. This is because choosing PWRT necessitates reduction of focus and effort in other areas. As a result, there are invisible trade-offs that would benefit from being transparent, so that these trade-offs are made in a fully informed way and any detrimental impacts can be actively managed.

**Synergistic Value of Collaborative Research:** The collaborative research network, which includes PWRT, Greater Wellington, other Councils, and CRIs provides significant synergistic value. This network allows Greater Wellington to leverage the collective expertise and resources of multiple entities, reducing the cost of research and development while enhancing the quality and applicability of the findings. The evaluation concluded that replicating this value independently would be more costly and less effective. There is also disagreement as to whether PWRT would remain viable if more significant funders, like Greater Wellington, exited the sector initiative.

## 4.3 Effectiveness

### Do PWRT Contributions Achieve Desired Outcomes?

**Achievement of Outcomes:** The contributions from Greater Wellington to the PWRT have been effective in achieving the desired outcomes. Specifically, Greater Wellington's work in erosion control, flood protection, and environmental restoration has been significantly enhanced by the research and genetic material provided by the PWRT. The focus on future-proofing against climate change and pest incursions has added further value. This further value is critical to supporting Greater Wellington's efforts to remain resilient and adaptable to evolving environmental conditions.

**Impact of Research-Based Education:** The research-based education provided by the PWRT has been particularly impactful in building trust and

credibility with private landowners. This has led to increased adoption of recommended practices, contributing to the overall success of Greater Wellington's initiatives.

**Insurance Function and Future-Proofing:** The PWRT's contributions also play a critical role in providing an insurance function, ensuring that Greater Wellington's investments in poplar and willow plantings are protected against future risks. This future-proofing is essential for maintaining the long-term effectiveness of Greater Wellington's environmental strategies.

#### **4.4 Cost-Effectiveness**

##### **Is the Contribution Worth the Investment?**

The evaluation determined that the benefits derived from PWRT's work cannot be replicated for less cost. The collaborative research network provides a unique value that would be challenging and expensive to replicate independently. Moreover, the intangible benefits, such as the insurance function and the increased credibility of Greater Wellington's advice, further enhance the cost-effectiveness of the contribution.

In conclusion, Greater Wellington's contributions to the PWRT are deemed both cost-effective and necessary for achieving the council's strategic objectives. The evaluation recommends continuing the contributions while implementing mechanisms to improve transparency, accountability, and collaboration across business units. This will enable quick identification of changes to the status quo that decrease the value of the contribution or have unintended detrimental effects.

## 5. Additional considerations

This section addresses additional issues identified during the review that, while outside the primary scope of the evaluation, are important for future decision-making. These considerations include transparency in trade-offs, performance and accountability mechanisms, and opportunities for enhanced collaboration across EG's functions and business units.

### 5.1 Trade-Offs and Financial Transparency

**Lack of Visibility in Financial Decisions:** The evaluation found that the exact amounts, cost centers, and levy contributions related to the PWRT have low visibility across EG. This lack of transparency is consistent with the relatively small financial sums involved; however, it also diminishes the ability to undertake best-practice accountability for funding decisions. Decisions regarding the allocation of funds are often made within individual business units, leading to a fragmentation of financial oversight. It also undermines the ability to maintain a VfM perspective in decision making.

Moreover, there is a misalignment of incentives, as the costs and benefits of the PWRT research do not accrue evenly across business units. This disparity can result in suboptimal decision-making, where the true value of the contributions is not fully recognised or leveraged.

**Consequences of Unplanned Increases in Levies:** The unexpected increase in the indirect levy has had significant implications for the Akura Nursery, a standalone cost-recovered unit within EG. The increase, coupled with the impacts of Cyclone Gabrielle, has jeopardised the nursery's budget, forcing it to deprioritise other needs to continue funding the PWRT. There is a wide-spread assumption that the changes in the indirect levy will be off-set with price increases.

In economics, this assumption is only true if the price/demand is infinitely elastic. Only highly addictive narcotics achieve infinite elasticity. While no research on the exact price elasticity in this area could be found, pricing signals need to reflect RT's desire to encourage poplar and willow planting. This is because it not only manages impacts on private land, and connected GW land, but also provides other environmental benefits that accrue to the public as a whole. Furthermore, price elasticity is also exacerbated during a cost-of-living crisis. The Akura nursery pricing also faces supply-side constraints, due to uncontrollable external factors, such as extreme weather events, like Cyclone Gabrielle, and internal factors, such as on-going asset management needs. This situation highlights the need for a more robust mechanism to manage levy changes and ensure they do not disproportionately impact specific business units within RT. As a result, it is essential to develop a mechanism that considers the broader implications of such decisions and aligns them with RT's strategic outcomes.

## 5.2 No Performance and Accountability Mechanism

**Need for Formal Mechanisms:** The evaluation identified a critical gap in the lack of formal performance and accountability mechanisms related to the PWRT contributions. While informal, person-specific contacts and individually held records exist, they do not provide a comprehensive or systematic approach to ensuring that the PWRT continues to add value to Greater Wellington.

Furthermore, the Trust's communication efforts have improved under the new General Manager, but there is still no formal mechanism to predict or manage future funding increases. Additionally, there is no established process within Greater Wellington to elevate concerns or assess the ongoing value of the PWRT contributions systematically.

**Opportunities for Improvement:** To address these gaps, it is recommended that Greater Wellington develops and implements a performance management framework. This framework should include metrics for evaluating the PWRT's contributions and mechanisms for ensuring accountability and transparency in the decision-making process. By incorporating these elements into Greater Wellington's broader accountability processes, EG can ensure that the PWRT contributions remain aligned with its strategic objectives and continue to deliver value for money.

## 5.3 Missed Opportunities for Collaboration

**Enhanced Collaboration Across Functions:** The evaluation highlighted missed opportunities for collaboration between Knowledge and Insights (K&I) and Delivery functions. The units and Functions have related research and expertise that could be better aligned to maximise the value of the PWRT contributions.

For example, K&I's research on soils, erosion, and water/land interactions could complement the Delivery function's work on environmental restoration and flood protection. By fostering greater collaboration between these units and Functions, Greater Wellington can ensure that it is utilising all available resources effectively and driving more informed, strategic decisions.

## 6. Recommendations

The findings from this Value for Money (VfM) Review indicate that while Greater Wellington's contributions to the Poplar and Willow Research Trust (PWRT) provide significant value, there are areas where improvements can be made to ensure continued alignment with strategic objectives, enhanced transparency, and better accountability. This section outlines specific recommendations designed to address these areas.

### 6.1 Key Recommendations

1. Develop and Implement Performance and Accountability Mechanisms:
  - *Performance Metrics:* It is recommended that EG develops clear performance metrics to define what constitutes value from the PWRT contributions. These metrics should be agreed upon by all relevant stakeholders and aligned with EG's strategic objectives.
  - *Accountability Mechanisms:* Establish accountability mechanisms to regularly measure and report on the performance criteria. These mechanisms should be integrated into EG's broader accountability processes to ensure consistent oversight and visibility.
  - *Transparent Decision-Making:* Ensure that funding decisions are informed by a clear understanding of the trade-offs involved, using the performance and accountability mechanisms as data sources. This approach will help mitigate the impact of unexpected levy increases and other financial challenges.
2. Enhance Collaboration Between Knowledge and Insights and Delivery Functions:
  - *Integrated Research and Development:* Encourage greater collaboration between K&I and the Delivery functions to better align research agendas and expertise. This collaboration could lead to more comprehensive and strategically informed decisions regarding the use of PWRT's research and genetic material as well as EG's own research and monitoring.
  - *Shared Learning/Needs Analysis Network:* Foster a more integrated learning network within EG that includes contributions from both K&I and Delivery. This network should facilitate the sharing of insights and innovations across business units, maximising the value of PWRT's contributions to Greater Wellington's environmental goals.
3. Improve Financial Transparency and Management of Trade-Offs:

- *Visibility of Financial Decisions:* Increase the visibility of financial decisions related to PWRT contributions across EG’s business units.
- *Mechanism for Managing Levy Increases:* Develop a robust mechanism to manage unexpected increases in levies, ensuring that these do not disproportionately impact specific functions or units. This mechanism should consider the broader implications for EG’s strategic objectives and the financial sustainability of its operations.

#### 4. Future-Proofing and Continuous Improvement:

- *Focus on Future Needs:* Ensure that the PWRT’s research remains focused on future needs, including responding to climate change, pest incursions, new uses of poplars and willows and other emerging environmental challenges. It will also need to remain responsive to central government policy setting movements, such as the Hill Country Erosion Programme and any others. This future-proofing is essential for maintaining the long-term effectiveness and relevance of PWRT research.
- *Continuous Evaluation:* Regularly review the value for money provided by PWRT’s contributions, using the recommended performance metrics and accountability mechanisms. This continuous evaluation will help Greater Wellington adapt to changing circumstances and ensure that its investments in the PWRT continue to deliver the expected benefits.

#### 5. Setting Up for Success:

- *Accountability:* Identify a single body for accountability to coordinate responses, if any, to the Report.

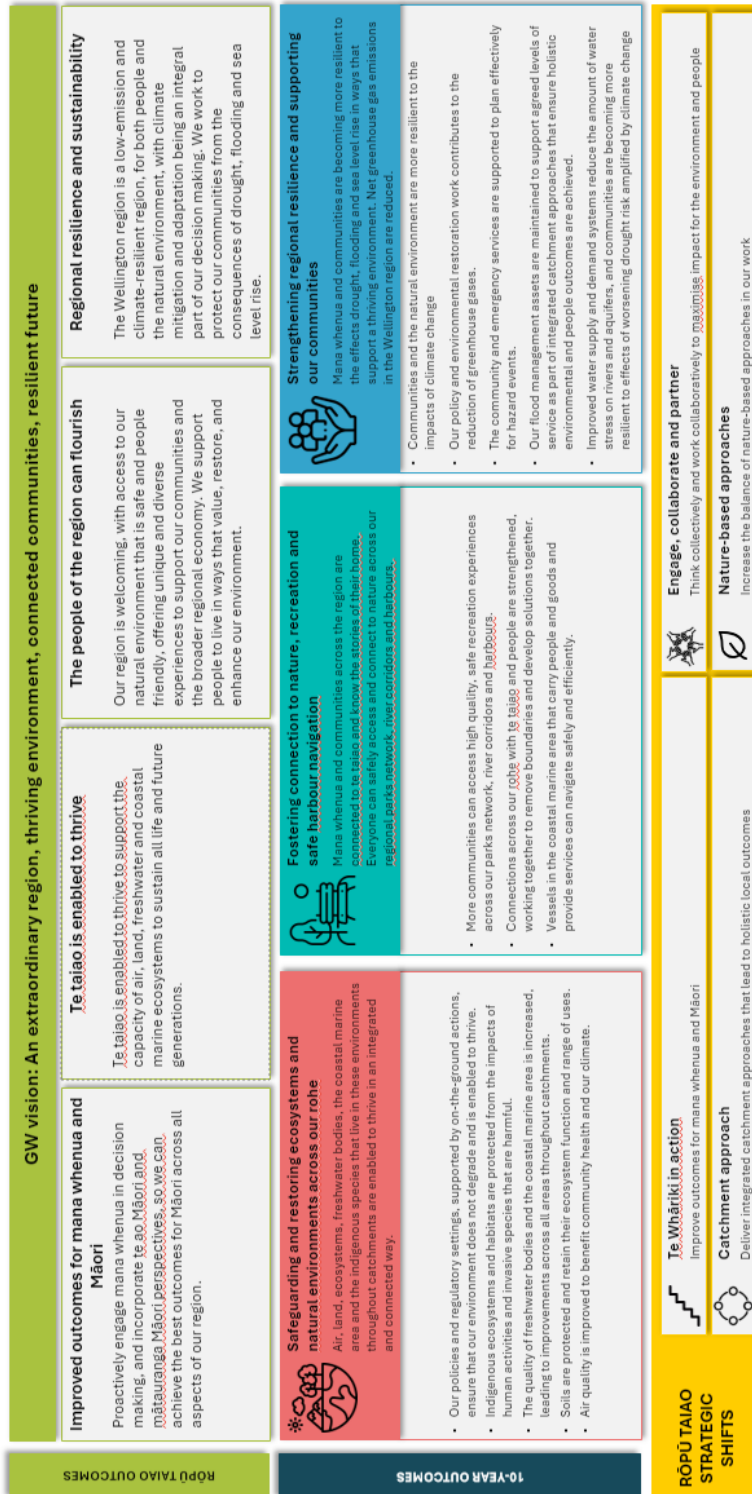
## 6.2 Conclusion

The recommendations provided in this section are designed to enhance the value for money of Greater Wellington’s contributions to the PWRT, ensuring that these contributions remain aligned with strategic objectives, are transparent, and accountable. By implementing these recommendations, Greater Wellington can strengthen its partnership with the PWRT, optimise the impact of its investments, and continue to deliver effective erosion control, flood protection, and environmental restoration across the region.



# Appendix 1: Ropu Taiao (Environment Group) Strategic Framework

## Rōpū Taiao Strategic Framework



## **Appendix 2: Funders of the PWRT**

The contributors to the PWRT sector initiative:

[Auckland Council](#)

[Bay of Plenty Regional Council](#)

[Environment Canterbury](#)

[Environment Southland](#)

[Waikato Regional Council](#)

[Gisborne District Council](#)

[Greater Wellington Regional Council](#)

[Hawke's Bay Regional Council](#)

[Horizons Regional Council](#)

[Marlborough District Council](#)

[Northland Regional Council](#)

[Taranaki Regional Council](#)

[Tasman District Council](#)

### Appendix 3: Evaluation Roles and Responsibilities

Role	Person & Contact	Responsibility
Commissioning Managers	Dave Boone & Dave Hipkins	Agree the Evaluation Purpose, Scope and Plan Confirm the Findings & Results Use findings as needed
Evaluation Lead	Shilinka Smith	Evaluation Design Organise Evaluation Process Desktop IVL Mapping for Consultation Consultation on IVL and Quantification methodology Lead Interviews /Workshops Write report and distribute results
Key Informant and Project Contact	Tony Faulkner	Provide oversight and direction Indicate key needs and intentions for the evaluation Sounding board and testing of initial methodologies and results
Involved Greater Wellington Staff and Managers	Graeme Campbell Melissa MacDougal Barry Lynch Ethan Coulston Tony Faulkner Dougall Gordon Rachel Scanlan ( <i>Akura nursery lead</i> ) Paul Henderson (added comments to Rachel's interview by email) Other staff & managers were given the opportunity to participate but passed their invitation on to others in this list.	Participate in Analysis and Assessment through: One or two 30-45 min work-shopped sessions to discuss: IVL Maps Quantification Relationships Staff/Manager Perspectives Value-Add
PWRT Staff and/or Manager	Ian McIvor ( <i>Immediate past General Manager, consequently has the institutional knowledge for this interview</i> )  Optional: Sally Lee (new General Manager)	Participate in Analysis and Assessment through: One or two 30-45 min sessions to explore: IVL Maps Quantification Relationships Staff/Manager Perspectives Value-Add
Other impacted parties	None identified	

## Appendix 4: Linking Data to the Framework

The key components that underpin the evaluation design are the intervention logic model (shown in Figure 1), and the set of evaluation objectives and questions. The IVL model identifies specific components to value the contribution, whereas the evaluation objectives and questions identify broader areas for inquiry. This combination of reviewing the contribution against both specific components, and broader objectives (with associated questions) cuts horizontally across the IVL. This yields a comprehensive approach to the evaluation. The relationship between the IVL and evaluation objectives is noted in Table A4.1.

**Table A4.1: Data collection methods and sources against the evaluation objectives and evaluation questions/information objectives.**

Key Evaluation Question	Relationship to Contribution	Information objective/evaluation Questions	Lit Review	Model Dev	KII	Workshops/ Interviews	Quantitative Data	External Interview
Formative Objective: What was the intent of the PWRT contribution?	Context and Need: this informs the expected value of the contribution	What value is the PWRT expected to provide to GW and the NZ environment?					ü	ü
		What is the theory of change for getting that value?	ü	ü	ü	ü	ü	ü
		What are the needs or untapped potential that this contribution was intended to address?			ü	ü		
		Have the needs changed?			ü	ü		ü
Process Objective: How has the value from the contribution been implemented?	Inputs, and Activities, and Outputs (which logically influence outcomes)	How has the research been used?			ü	ü		ü

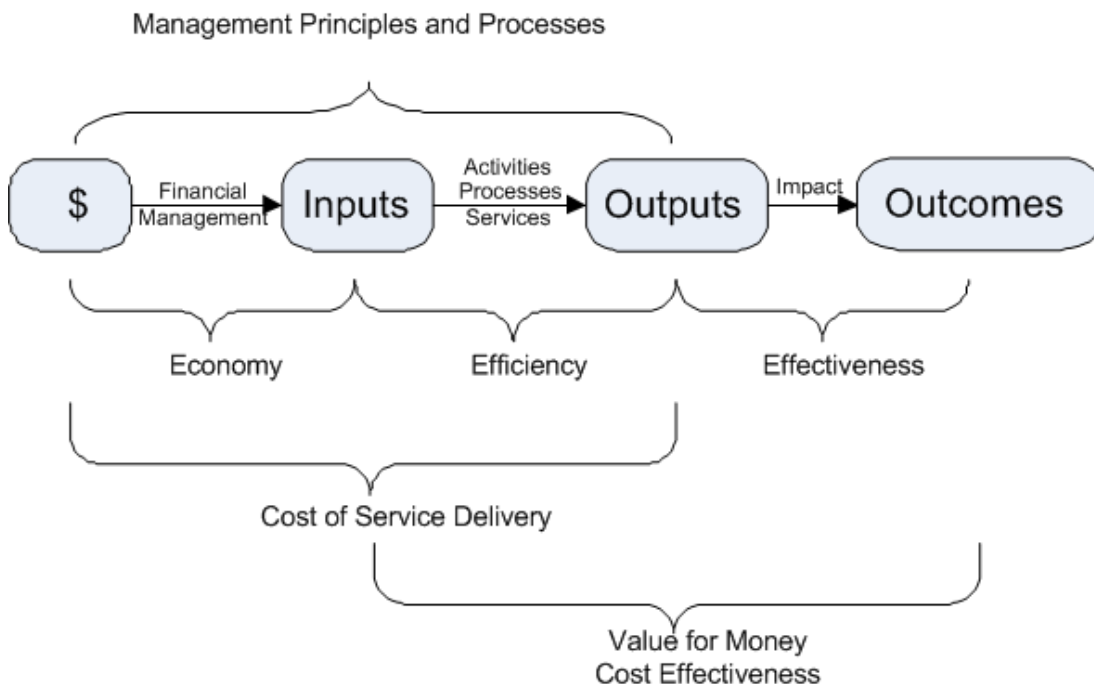
<p>Outcomes-related objective: What outcomes and impacts have resulted from this implementation?</p>	<p>Outcomes Achievement</p>	<p>Have the needs of GW been met?</p>			ü	ü	ü	ü
		<p>Is the value more effective in some areas than others?</p>			ü	ü	ü	ü
		<p>Has the contribution been cost-effective?</p>			ü	ü	ü	ü
		<p>What are the unintended negative or positive outcomes, are there any spill over effects?</p>	ü	ü	ü	ü	ü	ü
<p>Lessons Learned: What lessons can be identified from the implementation to date</p>	<p>A collective response to the three areas of interest (ie formative, process or outcomes)</p>	<p>What lessons can be learned from current implementation that can inform future improvements?</p>	ü	ü	ü	ü	ü	ü
		<p>What lessons can be learned from the Review?</p>	ü	ü	ü	ü	ü	ü
		<p>What best practice can inform implementation?</p>	ü	ü	ü	ü	ü	ü
		<p>What do we know about new or emerging problems?</p>	ü	ü	ü	ü	ü	ü
		<p>What accountability mechanisms are in place for on-going visibility and improvement</p>			ü	ü	ü	ü

## Appendix 5: Cost Effectiveness Methodology

### Cost-effectiveness – Methodology for Analysis

Given that the effectiveness of the PWRT was outside of scope, the main analysis used to support the recommendations for this evaluation was cost-effectiveness. Cost-effectiveness is typically conceptualised as the conversion of an investment (or cost) into an outcome, and encompasses economy, efficiency, and effectiveness. The NZ Government and Governments around the world tend to use IVL as the methodology for assessing value for money in public services because it allows consideration of intangible benefits. It also makes clear the contribution to the public good as well as direct benefit to the funder (in this case Greater Wellington).

As shown in Figure A5.1, cost-effectiveness can be best understood as a combined and overall assessment that includes both efficiency *and* effectiveness. Combined assessment works well when making decisions, as decisions focused solely on enhancing efficiency may have adverse impacts on effectiveness and the likelihood of achieving high-level outcomes. Cost-effectiveness provides a mechanism to consider both in a balanced way that includes public good benefits and direct benefits to Greater Wellington outcomes.



**Figure A5.1: Definition of cost effectiveness. (Source: Office of the Auditor General 2011)**

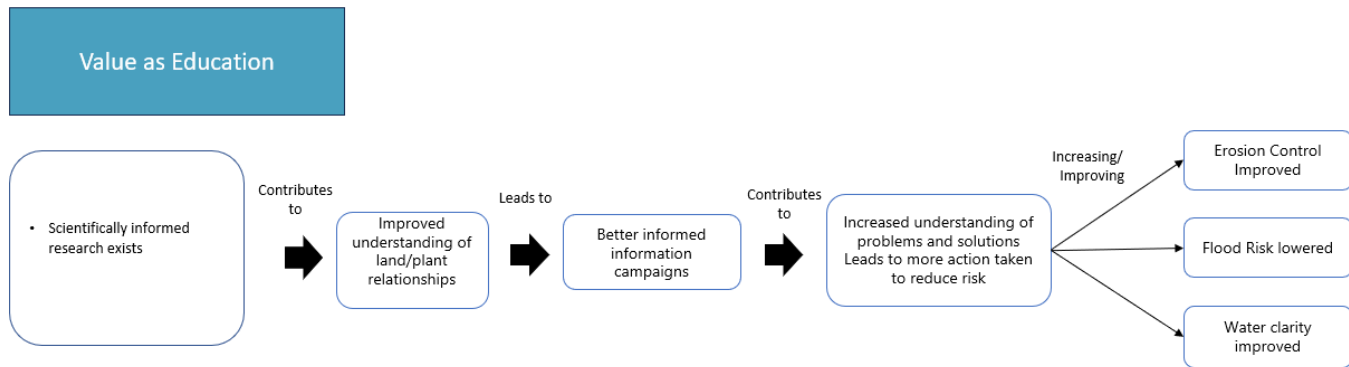
To make the components of the valuation transparent, most public sector work can be divided into intended inputs, activities and outputs, and outcomes, and accompanying assumptions. These components provide a clear understanding of the intention of an original set of inputs and activities and give clear structure for an evaluation.

The theory of change for the PWRT work accompanies the model and provides a narrative to explain how the inputs and activities of the PWRT (in conjunction with Greater Wellington work) are intended to contribute to Greater Wellington outcomes (which are also wider outcomes with national-level effects).

To capture these components and the relationships between them, an intervention logic model (Figure A5.1) pictorially depicts the intended changes (or 'theory of change') from inputs, activities, and outputs, through to outcomes for the PWRT Contributions. The facilitates discussion of original intentions of the contribution, as well as those that have evolved since the contribution was put in place. The series of IVLs were developed as one of the first steps in the evaluation.

The approach to assessing the cost effectiveness of the PWRT contribution was to firstly identify and assess the key costs and benefits of the research Greater Wellington uses from the PWRT. Then cost-effectiveness was expressed on a continuum (from minimally cost-effective to maximally cost effective), to examine the extent to which Greater Wellington had achieved cost-effectiveness, based on both quantitative and qualitative data collected from the various research methods employed in this evaluation. This calculation was complicated by the fact that the assessment did not cover whether the PWRT was cost-effective, but whether the Greater Wellington contribution was cost-effective for Greater Wellington. To manage this weakness, opportunity cost analysis was also undertaken to provide additional insight into the issues emerging from the spend.

## Appendix 6: Application of IVL Methodology to the Value of Confident (Research-based) Education



**Figure A6.1: IVL: Value as Education**

EG needs more private landowners to help improve erosion, reduce flood risk and improve water quality by making best use of PW. To achieve this, our staff need to be as informed and certain as possible. This contributes to our credibility, giving private landowners confidence that their investment of time and money will have the desired outcomes.

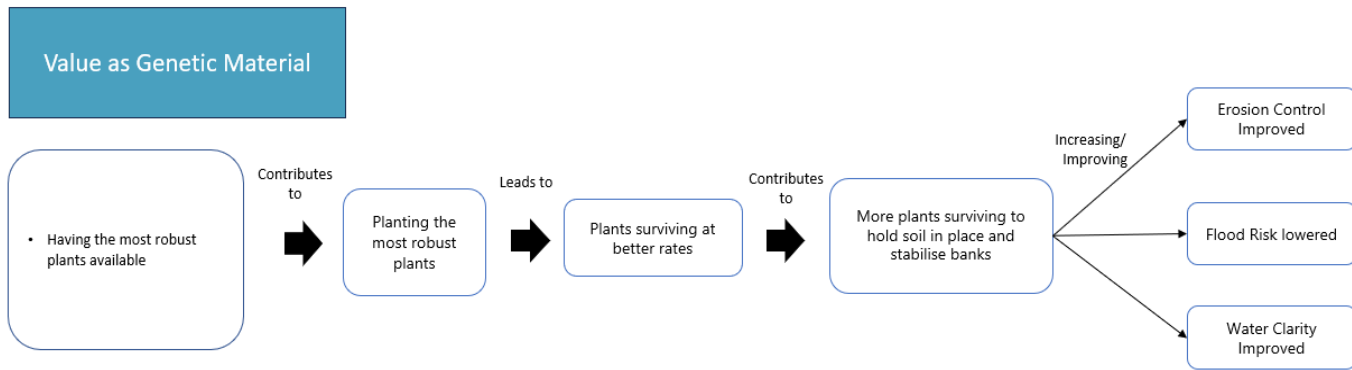
Specifically, in terms of this review, our staff need to be confident advice on the best solutions is as accurate as possible. This ensures that private landowners have the highest chance of success when following Greater Wellington advice. As a result, landowners will have more confidence that the plants they invest in are most likely to grow and survive on their land, and most likely to improve water quality and provide protection during weather events.

Credibility in this concrete area (plants can be seen to survive and provide protection) helps add credibility to requests and regulations less directly related to PW or those that are more intangible than the concrete results that PW produce. This is because even if landowners do not see those other intangible results, they have seen the tangible results of our PW advice, hence increasing trust in our advisers because landowners have seen tangible results in areas that they can verify. One stakeholder thought this was an important value for achieving EG outcomes more broadly as well as those specifically related to water quality, erosion, and flood protection. This is because many Greater Wellington/EG outcomes are influenced by these same landowners.

At present there have been no reports Greater Wellington advice is not reliable. Because Greater Wellington relies on willing participation of landowners, building trust with landowners through reliable information is critical. As such its value is indirectly found in the number of motivated landowners prepared to follow Greater Wellington advice. Greater Wellington is currently convincing private landowners to buy and plant over 36,000 poles per year. Demand has risen and outstrips supply, so landowners have not lost confidence in Greater Wellington advice over time.



Appendix 7: Application of IVL Methodology to the Value as Genetic Material



**Figure A7.1: IVL: Value as Genetic Material**

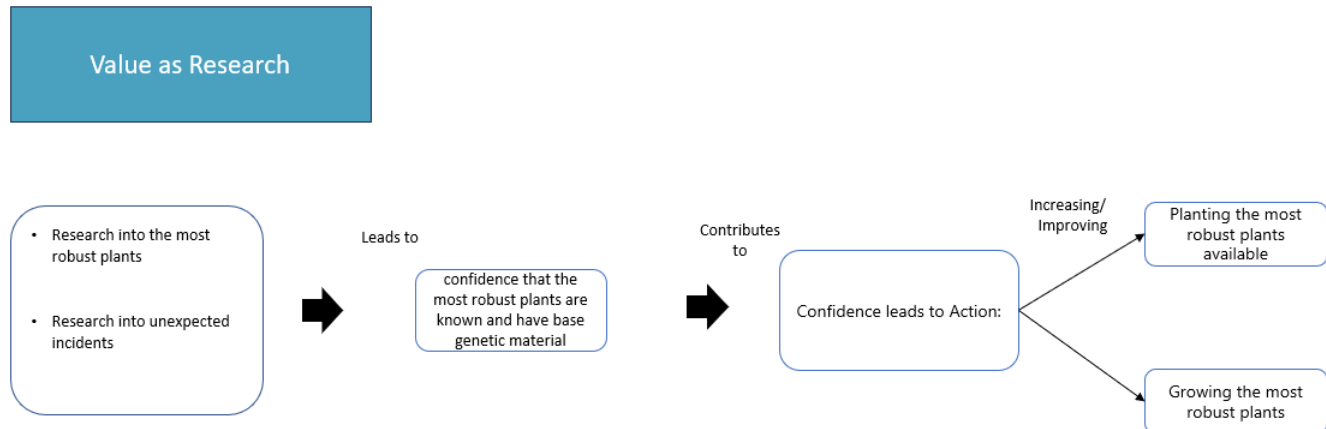
Adding to the value of the certainty that comes from research, the quality of the genetic material provided is also assured. New varieties are riskier and are distributed by the Trust free of cost, to test their viability. However, fully researched species and cultivars, which are known to be reliable, are purchased with confidence, ensuring landowners and Council both successfully invest in improving the regional environment.

Given the relative stability of PW use over the last 15-20 years, enough genetic material of well-known varieties exists and nurseries across the country are well stocked in the base material needed to propagate new poles. This is the area where the Trust is providing the least ‘new’ value. Nevertheless, the stability of the PW market is a result of the previous efforts of PWRT and accompanying research, such as that done by Greater Wellington and other Councils. Hence, the main value related to generic material is in the current stock.

Considering the current level of PW understanding, NZ has enough current stock of robust material from which to propagate. Furthermore, if nothing changes in NZ, in terms of climate, pests and the areas where PW are used (such as shifting from primarily rural to urban areas), there may be a case to be investigated as to whether the PWRT’s research has anything more to offer. This finding suggests that for PWRT to continue to add value, the value must be found in whether PW use is ‘fit for the future’, rather than value in terms of present genetic material.

As a result, the key area of consideration for on-going funding is whether the PWRT work is focused enough on future-proofing and responding to change rather than present needs.

## Appendix 8: Application of IVL Methodology to the Value as Research



**Figure A8.1: IVL: Value as Research**

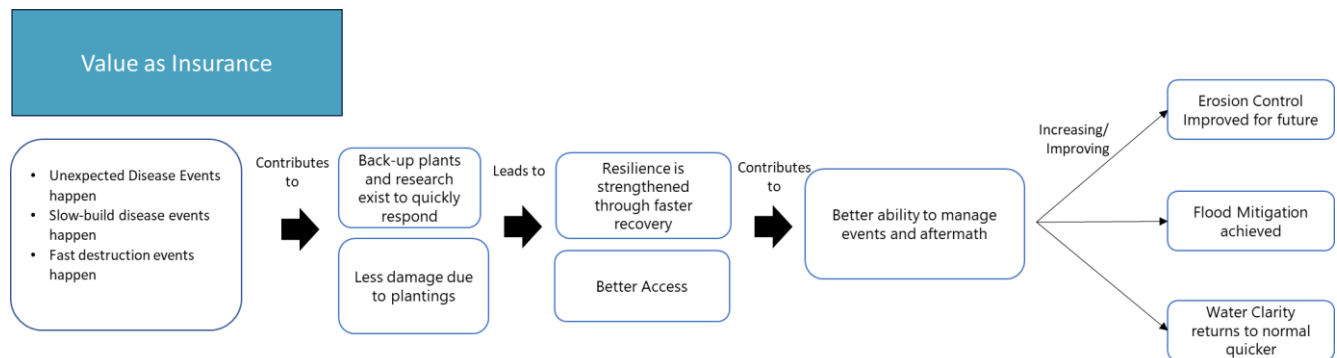
Greater Wellington has invested \$40 million in PW planting and has not found problems with the stock or material. As such, it is confirmed that PWRT provides reliable clones and supporting information for survival. The value of the research is in the certainty it gives planting actions.

As noted in the ‘value as education’ section, certainty is the basis of action. Not only does PWRT research and robust genetic material assist in Greater Wellington work with landowners, but Greater Wellington’s own land management and restoration practices are informed by the PWRT research. The knowledge of poplar and willow behaviour, the existence of a wide variety of species and the well-understood strengths and weakness of those species, all leads to better and faster decision-making.

### Caveat

While the certainty of Greater Wellington action is attributable to the quality of PWRT research, the key value is synergistically derived from the collaborative work of Greater Wellington, other Councils, PWRT and others in what might be unofficially termed a ‘learning network’. As such, the research outputs are interconnected and cumulative. This means determining the independent value of one area is challenging, and any gains from such an exercise would likely be offset by the cost. Nevertheless, there are opportunities to include other parts of Greater Wellington, such as K&I in this learning network, to ensure Greater Wellington has consistent research alignment and is making the most of internal resources, both during internal project planning and funding, and before contracting externally.

## Appendix 9: Application of IVL Methodology to the Value as Insurance:



**Figure A9.1: IVL: Value as Insurance**

All participants agreed that planting poplars and willows had a positive impact on soil erosion and flood protection. The contribution that the PWRT made to the insurance function was to improve the success rate of poplars and willows surviving and maintaining not only soil in place, but controlling debris during events. This control meant emergency services can access more areas and access them more easily as well as less infrastructure being damaged by debris, making recovery faster and easier.

In this context, the funding for flood mitigation was \$80 million per year. The ratio of the contribution was  $\$65,000:\$80,000,000 = .0008125 = .08125\%$ . This means that less than 1% of the value of protection work was used to be confident that the stock Greater Wellington is growing and planting:

- Has the highest chance of survival after planting;
- Is robust enough to do the job expected of them prior to, and during, an emergency; and
- Should the climate or pest situation change suddenly, there is already capability and capacity to quickly pivot with the confidence that the new direction is as well researched as it can be, compared to the compromised status quo.

The monetary value of an insurance-function is always difficult to calculate. High cost, but low frequency events always skew quantitative analysis toward mitigation techniques, such as planting poplars and willows (hence funding of flood protection programmes at Greater Wellington). As a result, proxy measures are usually used.

Technically, it is hard to estimate how much prevention activities save, as it is both difficult and case-specific to identify how much damage did *not occur* because of

protection work. In addition, it is usually the totality of the protection system that has synergistic results in reducing damage, rather than a single action, such as poplar and willow use. However, to take just one weather event in the Wairarapa, in Masterton alone, the Masterton Council put aside \$2.5million to repair or manage severely affected (residential) locations (as part of the FOSAL (Future of Severely Affected Land) programme) resulting in a \$26 (average) rate increase. This is part of the estimated damage of Cyclone Gabrielle's \$13.5 billion with insured damaged at only \$1.79billion. In this context, as a ratio of risk mitigation to actual damage costs, the percentage of input into the poplar and willow risk reduction mechanism is extremely low, representing value for money.

The value is also amplified because an additional unique contribution of the PWRT is that the Trust commissions research not only into the best types of poplar and willow for the conditions and management of soil erosion in current conditions, but also proactively monitors pest and climate changes that may have detrimental effects on currently well-performing species.

The PWRT research (and its predecessors) have significantly contributed to successfully managing two incursion-events in the last 15 years. Neither event has comprised on-going poplar and willow use. This is because the right choices were made during early management of the incursions as result of PWRT research (and evidence-based certainty). Furthermore, the incursions have not proliferated since initial management actions because of the resilience bred into PWRT genetic material.

In addition to successfully managing two incursions, Kils and PWRT noted the frequency of incursions is increasing. PWRT is responding to these changing trends, particularly as climate change is challenging previous research that had assumed specific climate conditions. So, even though poplar and willow use is currently expected to stay stable over the next 5 years, reducing the need for more research, the insurance value of the research is arguably increasing. This underscores the need to ensure PWRT remains future focused.



**Greater Wellington Regional Council:**

Wellington office  
PO Box 11646  
Manners Street  
Wellington 6142

T 04 384 5708  
F 04 385 6960

Upper Hutt office  
PO Box 40847  
Upper Hutt 5018

T 04 526 4133  
F 04 526 4171

Masterton office  
PO Box 41  
Masterton 5840

T 06 378 2484  
F 06 378 2146

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[info@gw.govt.nz](mailto:info@gw.govt.nz)  
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