



# Plants Restoring Wairarapa Moana

Ronan Flynn

Christopher Hunt

Max Inman

Sofia Quattrini

Evan Seki

Submitted to Ian Gunn and Rawiri Smith

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# Chapter 1: Introduction

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Wairarapa Moana is an extensive wetland and ecosystem near the southernmost point of Aotearoa New Zealand's North Island. The wetland is home to a rich diversity of plant and animal species and earned international recognition when appointed for Ramsar Status in 2020. Activities in the region range from agricultural, cultural, and recreational, and all rely on the Moana for their prosperity. Pastoral farming, introduced to the fertile lands surrounding the wetlands in the 1800s, has grown into a major force in the region's economy, providing livelihood to many in the region. The Moana holds cultural significance for local Māori communities. For centuries, they have relied on Wairarapa Moana for sustenance, spiritual connection, and its ecological balance as an integral part of life. Nutrient runoff from modern farming techniques, and flood prevention measures installed in the 1960s have caused the water quality to decline in the lakes and wetlands that compose the Moana. This has led to a loss of spiritual connection to the land for local Māori people.

In 2024, and fittingly at Matariki (the Māori new year), the Crown facilitated transfer of authority over Wairarapa Moana to Ngāti Kahungunu, the local iwi. After considerable petitioning from the iwi to the Crown through Treaty of Waitangi claims, they both agreed on co-governance of the Moana in the form of a Statutory Board. This has brought new opportunities and commitments to restoration efforts, including strategies involving the use of native plants. The Board sees an opportunity to develop a shared vision for addressing declining water quality and encouraging a unified approach to healing the wetland after years of neglect from human activity and misplaced priorities.

A common appreciation for restoring plants is not only ecologically beneficial but also strikes a balance between supporting cultural and economic ties to the land. There are many perspectives and concerns about the *oranga tonutanga* (continued wellbeing) of Wairarapa that could be voiced in this process, and to do this effectively, it is important to promote the shared view of the health of the Moana.

Building collective energy around this multi-faceted process takes time and sensitivity. It requires careful listening and meaningful reflection. Stakeholders in the Moana have life experiences, cultural identity, and personal stories to share about their connection to the region.

Their stories have the potential to build a holistic picture of the region as it has existed, as it exists now, and how it might exist in the future. They may reveal pressing concerns that pertain to future livelihood, that tie into family tradition, or that come from formative recreational experiences. Through these stories, we can uncover a common viewpoint on how to unify restoration efforts.

The goal of this project is therefore to create a film that highlights the revitalization of Wairarapa Moana. We will complete this project alongside collaborators Rawiri Smith, the environmental advisor and kaumātua (respected elder) at Ngāti Kahungunu, and Ian Gunn, the Project Coordinator of the Wairarapa Moana Wetlands Project. To achieve this goal, we collaborated to identify three objectives:

1. Document the interconnectivity of the holistic Wairarapa region.
2. Explore the balance of perspectives and cultural identity through the lens of plant practices.
3. Investigate the investments and the impact of restoration on the local community.

We hope the project will contribute to a rich, holistic expression of voices in the region and help shape the future of restoration efforts to restore the Moana.

## Chapter 2: Literature Review

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This chapter documents how the interconnection of the land to the community ranges from economic to spiritual to medicinal and shapes the benefit of restoration efforts. Additionally, section 2.3 discusses how local voices are part of the amplification of this approach.

### 2.1 The Moana as an Area of Ecological Significance

The Wairarapa Moana wetland is in the southern area of the Wairarapa Plains just outside the rural town of Featherston. Situated on the Ruamāhanga River floodplain, this wetland is in the lower North Island of Aotearoa New Zealand. It is approximately an hour's drive from Wellington, the capital city (see Figure 2.1).

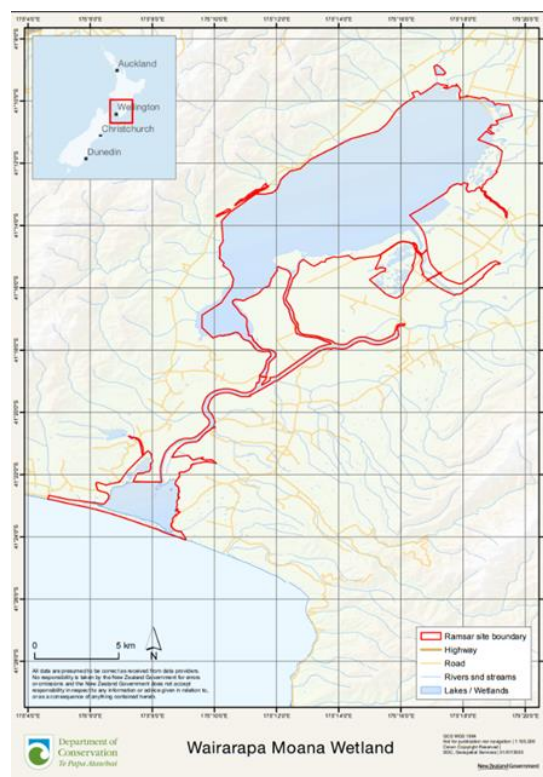


Figure 2.1: Map depicting the location of wetlands (New Zealand Government - Department of Conservation, n.d.).

This area encompasses several bodies of water, including Lake Wairarapa, and extends to the freshwater marshes and swamps on the periphery. In addition, the Ruamāhanga River

connects bioregions such as Lake Ōnoke to Lake Wairarapa (Gunn, 2014; National Wetland Trust of New Zealand, n.d.). This estuarine lake, which bridges the Ruamāhanga and the sea, is a mixture of fresh and salt water. Other features of the Moana include coastal marshes (see Figure 2.2), streams, and coastal shore habitats (Ramsar, 2020).



*Figure 2.2: Marsh area located within Wairarapa Moana (Best Bits Travel Guides, n.d.).*

Not only do rare landscapes characterize the Moana, but its prized biodiversity and presence of rare and threatened species add to its ecological significance. This wetland provides a habitat for a variety of endemic species unique to this location and found nowhere else in the world. These species play a crucial role in shaping their ecological community, contributing to increased biodiversity and habitat complexity (Burlakova et al., 2011). The variety of species includes both flora and fauna, many of which hold cultural significance. For example, the freshwater eel is an important part of the area's history due to its preservation and trade by Māori settlers (see Figure 2.3).



*Figure 2.3: Freshwater Eel (Tuna) found throughout the Moana. (Wells, n.d.)*

Referred to in te reo Māori as “tuna,” the presence of these eels facilitated the establishment of settlements along the Moana. Other fish species such as brown trout, perch, grey mullet, and black flounder serve as traditional food sources as well (Ramsar, 2020); (National Wetland Trust of New Zealand, n.d.). Numerous important bird species also utilize the ecosystem. In fact, twenty-three percent of all bird species identified in Aotearoa find representation in the Moana. Some of these species are nationally threatened or have declining populations (Ramsar, 2020).

The lake also supports critical plant species integral to life in the bioregion. Lake Wairarapa and the surrounding wetlands provide a habitat for over 300 plant species, more than half of which are endemic. Most of this vegetation resides in marshlands, where numerous short rushes, tall rushes, sedges, and grasses thrive. The exposed shore areas host approximately 55 species of small plants that have adapted to this environment. The Wairarapa hosts a variety of shrubs such as raupo, in the swamps on its eastern shores (Ogle et al., 1990). Raupo’s use by residents of the region dates to its use in traditional shelter construction during early settling of Wairarapa. Settlers used other plants such as flax and pīngao for both functional items and decoration (Ramsar, 2020) Finally, Māori communities value the mānuka plant for its cultural significance (see Figure 2.4).





*Figure 2.4: Manuka plant that is abundant throughout Wairarapa Moana (Hitiri Native Plant Nursery, n.d.).*

People both in Aotearoa and overseas value it not only for its applications in tools, weapons, and roofing, but also for its antibacterial properties, which make it common in various health and cosmetic products (New Zealand Government - Department of Conservation, n.d.). Mānuka is just one example of the bioheritage treasures supported by the Moana.

The region's ecological wealth is strong, and people have relied on and modified the landscape since they first settled it. Early Māori residents cleared much of the forest upon arrival in the thirteenth century to grow crops, making way for secondary native ecosystems to take their place. Grasslands and swamps were among the most prominent habitats to take the place of these forests. When European settlers arrived centuries later in the 1800s, Wairarapa Moana underwent another series of transformations. These settlers eliminated more forest, drained wetland areas, and replaced native plant species with agricultural pastures and exotic trees to protect farmland (Beadel et al., 2000; Halford, 2019). More recently, land-use infrastructure developments such as the implementation of barrage gates on the Ruamāhanga River have lowered water levels in the wetland to prevent flooding. However, these episodic floods sustained many of the region's ecosystems (Beadel et al., 2000). The barrage gates are one example of human intervention that has caused a declining water quality in the region. As modifications compound over time, the

wetland's ability to renew and support biodiversity diminishes, impacting the people, plants, and wildlife who rely on its services.

## 2.2 Acknowledging the Extent of Ecosystem Services

As New Zealand grapples with its economic reliance on agriculture and the importance of ecological protection and restoration efforts, it must consider solutions that cater to both of these traditionally opposing domains. A 2019 study conducted in the Lake Rotorua catchment – also in New Zealand's north island – investigated both economic and ecosystem costs and benefits of potential alternative land use for the region (Mueller et al., 2019). Nutrient runoff from farms in the region had negatively affected the Lake Rotorua catchment producing toxic algae blooms (see Figure 2.5) feeding on excess nutrients. Similarly, nutrient runoff from local farms has negatively impacted the health of the Wairarapa Moana.



*Figure 2.5: Algae Bloom in Lake Rotorua (Warning Issued for Lake Rotorua and Ohau Channel, 2020).*

The Rotorua study explored how the implementation of nutrient caps in the region would impact the economic strength of land use (farming, forestry, water provisioning) and the ecological services offered by the region. Researchers used data from a preexisting study to categorize and index the areas generating ecosystem services. These services included biodiversity, aesthetics, and recreation as top contributors (Mueller et al., 2016). The 2019 study found that while nutrient mitigation would negatively impact the land-use value of the region,

the environmental service value change substantially increased. In one of the models they implemented, the environmental service value fully offset the loss of land use value.

Despite these results, the methods they suggested are controversial. The study acknowledges political and social implications, with stakeholders potentially losing their livelihood, land, and identity. Offering landowners financial compensation to incentivize their cooperation was one solution to address this issue. The studies' authors hypothesized that this kind of solution could align opposing beliefs towards a common goal (Mueller et al., 2019).

One key value indicator missing from this study, however, is the value of the land to local people with cultural connections to Lake Rotorua. Considering that over 40% of the population in the Rotorua District is Māori, the depth and breadth of value associated with local community practices was totally missing from the value assessment of the region (Stats NZ, 2018). The similarities of these two regions and the ecological issues they face provide a starting point for assessing potential solutions and their impact on the stakeholders of the region. However, before proposing a solution it is vitally important to listen to the impact or value generation of multiple stakeholders in the region in addition to landowners and farmers as done in the 2019 study.

## **2.3 Amplifying Indigenous Knowledge Systems of the Moana**

Wairarapa Moana, which in te reo Māori is known as “sea of glistening water,” holds deep spiritual and cultural importance for iwi who are rooted to it as an early settlement and a productive fishing ground (National Wetland Trust of New Zealand, n.d.). From their arrival in Aotearoa in the 13th century, Māori in the region have relied on the Moana to support their physical well-being, spiritual connectivity, and collective prosperity (Halford, 2019). Māori people view the health of the whenua (land) they inhabit as having great importance to their well-being.

### **2.3.1 Rongoā**

Rongoā, the traditional healing system in Māori culture, offers a spiritual medium for individuals to deepen their connection with their surroundings. Furthermore, it can connect the participants with their iwi (tribe), whanau (family), and genealogy (whakapapa) (Marques et al., 2021).

From a Western perspective, it might seem natural to view rongoā simply as a form of plant medicine. However, medicine is just one aspect of the culturally and spiritually significant practice. Methods of engaging with rongoā include rongoā rākau (herbal remedies), mirimiri (massage), karakia and ritenga (chants and rituals), and wai (water) (Marques et al., 2021). In rongoā, a practiced healer often leads the process. Their goal is to help the patient spiritually connect to their genealogy and land. Through rongoā, Māori believe that sickness or suffering can originate from an imbalance in the spiritual and physical aspects of an individual. Rongoā serves as a tool to rebalance these aspects by improving one's spiritual connection (Mark, 2012). This spiritual view of health is often missing from Western practices where healers commonly prescribe remedies for purely physical or chemical imbalances.

It is important to note that rongoā is not an action, but an ongoing pursuit of well-being. Healers employ principles of rongoā daily to build relationships, strengthen communities, and foster spirituality (Ahuriri-Driscoll et al., 2008). Therefore, rongoā is a critical consideration in efforts to maintain these connections in the region, as it offers inspiration for potential solutions to heal the Moana.

### **2.3.2 Rongoā Rākau**

Rongoā rākau is the branch of rongoā healing involving herbal remedies. Harakeke gel, kawakawa leaves, koromiko leaves, and mānuka leaves are examples of these herbal remedies. Physically, these can aid in treating burns, arthritis, urinary problems, and head colds. Steam baths, tonics, teas, and plasters are a few examples of how the Māori apply rongoā rākau. Like rongoā, it is crucial to emphasize that rongoā rākau's significance far surpasses just its bodily benefits. According to the Māori tradition, both plants and humans are descendants of Tānē Mahuta, the god of the forest. Due to plants preceding humans and granting protection for future generations, they hold superiority (Marques et al., 2021). Māori people interact with these plants through rongoā rākau to foster a bond with Tānē Mahuta as well as ancestors and descendants.

As noted earlier, the Māori consider the mānuka tree a taonga (treasure). Its honey is also a prominent export worldwide due to its antibacterial properties, and has found use in places such as the United States Military (Finlay-Smiths et al., 2023). Economic growth from worldwide attention has led to unforeseen exposure and a failure to acknowledge the cultural significance of mānuka to the Māori people. A 2023 ruling brought this issue to a boil when Australia topped

New Zealand in a legal “trademark war” over the use of the term manuka (Jefferson, 2023). This ruling highlighted the inability of Crown law to protect the sacred Māori taonga from the hands of globalization. As knowledge of rongoā and its benefits grows, society must acknowledge and respect the Māori perspectives to maintain a mutualistic relationship that preserves economic value as well.

### **2.3.3 The Future Rongoā Landscape in Wairarapa Moana**

The deteriorating condition of Wairarapa Moana has led to the degradation of rongoā. This extends beyond just the waning plant diversity necessary for rongoā rākau. As previously mentioned, a strong connection to surroundings is important for the success of rongoā. An understanding of the value of rongoā makes it clear that the current issues in Wairarapa extend beyond just ecology for Māori people.

Similarly, the land itself is dependent on rongoā just as Māori depend on it for spiritual healing and cultural identity. Rongoā practices can also improve the well-being of the Moana. Additionally, rongoā rākau treasures, such as mānuka, offer the potential to provide health benefits to local livestock (McCoard et al., 2024). With combined efforts inspired by rongoā and diplomatic decision-making, improvements to the current condition of the Wairarapa region may be attainable.

## **2.4 Amplifying the Voices of Partners and Stakeholders**

Restoration and healing of the Moana has been a process of developing a shared vision across multiple stakeholders. With the establishment of the Statutory Board, power over the future of the wetland lies with local iwi and a set of government agencies. This does not encompass the full set of interest groups and impacted parties. Pastoral farming, for example, continues to be the region’s dominant economic generator (Schrader, 2019). Decision-making across complex stakeholder groups needs to honor livelihoods, recreation, foodways, community interests, and the acknowledgment of whakapapa through connection to whenua. The following sections provide profiles of the primary stakeholders of the well-being of Wairarapa Moana.

### **2.4.1 Local Iwi and Regional Interconnection**

As the health of the Wairarapa continues to decline, Māori have become determined to restore Moana. While local iwi depend on the land to live and wish to preserve their lifestyle, many are choosing to restore the land because of their spiritual ties to the Wairarapa. A key element of Māori culture and identity is whakapapa, or genealogy (Chrisp, 1993). However, this translation does not encompass the true spirit and importance of the term. For Māori, whakapapa encompasses their ancestors, descendants, and the world around them (Mahuika, 2019). Places like Wairarapa Moana help maintain this connection by allowing Māori to experience the land as their ancestors did and provide a place for future generations. As the health of the wetlands declines so does the health of Māori. Their connection to their ancestors and their descendants begins to fade. Thus, the health of Wairarapa is a major concern for this community. Māori see themselves as one with the environment. Restoring the Wairarapa involves healing both the land and the deeper connection Māori have to their ancestors and future generations (Mahuika, 2019).

### **2.4.2 Farmers, Fishers, and the Economies of the Moana**

Support for livelihoods in the Wairarapa makes up a big component of efforts towards restoration. Farming plays a crucial role in the Wairarapa region's economy. Due to the fertile land that surrounds the region, the agricultural share of regional GDP in the South Wairarapa region is over five times that of Greater New Zealand (Ministry Business, Innovation and Employment, 2019). Recognizing this fertile land, in 1844 early colonial farmers drove the first sheep into the region (Schrader, 2019). Further developments in farming, such as the introduction of dairying, kept increasing the region's connection with farming. This set the direction of the legislative decisions of the region. Decisions made on behalf of the lake and the surrounding area including controversial instances of the government purchasing land from iwi who inhabit the region to benefit the livelihood of farmers.

In the 1960s a decision by the Wairarapa Catchment Board to install barrage gates enabled the management of water flow to prevent flooding. The decision consequently made farming in the region more stable, but it disrupted the original flow of the waters and impacted the biological health of the region (Flack, 2008). The impact that farming has had on the ecology of the region, however, does not mean that farmers themselves are against measures to sustain or reinvigorate the health of the region. Farms in the region actively participate in government-run

emissions programs and consider the environment in their practices (Franco, 2023). These practices demonstrate that the environmental situation is more nuanced than the simplistic view that farming is bad for the environment.

### **2.4.3 Local and Governmental Agencies**

Governmental agencies working in the region have an interesting goal of balancing the health of the region and the interests of the people. These organizations balance economic, environmental, democratic, and future decision-making in their strategy and decision-making. The Greater Wellington Regional Council (GWRC) has an interest in the South Wairarapa region—one of the nine regions under their leadership. The Council recently unveiled its 10-year plan, which highlights a range of future goals for the greater Wellington region, including economic growth, public transport, and environmental restoration. The report includes past work that has contributed to the Wairarapa Moana’s restoration and their commitment to honoring the Statutory Board as the decision makers for the lake (GWRC, 2024). The plan aims to work with both the local community and the neighboring farmers to ensure that there is a fair and just compromise between stakeholders (Paterson, 2024).

### **2.4.4 Representation and Recognition for the Moana**

Efforts to restore the Moana have been steady and slowly gaining traction. Recent successes, as noted earlier, include achieving international Ramsar Status in 2020 as well as the creation of the Statutory Board for Wairarapa Moana. Global recognition from the Ramsar designation boosted publicity about the long-known cultural and ecological importance of the landscape. This acknowledgment secured the Wairarapa on the List of Wetlands of International Importance under the Ramsar Convention from Geneva (Sage, 2020). Ramsar Status enables countries to oversee, manage, conserve, and restore included sites to ensure their ecological stability (Australian Government, 2023). This in turn has led to conservation efforts over an area totaling 10,547.05 hectares and has helped the region secure \$3.5 million in funding as a part of the 2020 Crown initiative, Jobs for Nature (New Zealand Government, 2020).

Finally, the creation of the Statutory Board signified the return of decision-making for the Moana to local iwi. A 2022 decision to settle all historical Treaty of Waitangi claims for Ngāti Kahugunu, ended a battle that the local iwi have been fighting since the Crown originally took

the land for colonial use. In addition to a public Crown apology, the settlement includes financial redress of \$115 million, and 4 out of 10 seats of the statutory board being Ngāti Kahungunu appointees. The Board is responsible for authorizing any use of the reserve, acting as a guardian of Wairarapa Moana for the benefit of present and future generations (Te Rohe o Rongokako Joint Redress Act, 2022). While this does not offer full redress for hundreds of years of environmental damage and lost wealth, it creates the beginning of environmental, social, and cultural redress and allows for the start of co-governance as outlined in the Treaty of Waitangi.

## **2.5 The Power of Storytelling for the Wairarapa**

Storytelling is one of the main components of Te ao Māori (beliefs encompassing Māori culture). Pūrākau (storytelling) is one of the primary ways the Māori people preserve and share knowledge (Lee, 2009). Storytelling is culturally important as it provides context to Māori lives. Through the process of Kōrero, or the oral tradition of telling one's own story, Māori place themselves in relation to their whakapapa and the world (Ware et al., 2018). The interconnectedness of all things, especially to one's whakapapa, is central to Te ao Māori and Māori well-being in general (R. Smith & I. Gunn, personal communication, November 3, 2024).

Storytelling also plays an important role in decolonization. It provides a counter to the erasure and suppression of indigenous beliefs that colonization fostered (Lee, 2009). Through storytelling, marginalized groups can fight social exclusion by expressing themselves, their stories, and their culture to the greater world. This has the power to amplify indigenous rights beyond internal borders. The first step to addressing any injustice is making the injustice known.

In 2023 a team of WPI students partnered with members of the community to co-create a documentary about Wairarapa Moana, featuring stories from area residents and leaders (see Figure 2.6). The filmmaking process revealed the complex but powerful opportunity that this medium brings to documenting stories about a sense of place. Filmmaking can communicate and amplify injustice to wide audiences (Wiebe, 2015). It is shareable and can form the basis for an archive. However, with the benefits of film, there are significant pitfalls that teams can face when telling other people's stories. First and foremost, these are not the documentarian's stories. Recording injustice does not give a filmmaker the right to speak for the subjects of their documentary (Wiebe, 2015). The film is a platform for their subjects and a partnership that enables the participants to speak for themselves.





*Figure 2.6: Frances Reiri-Smith in the 2023 Wairarapa IQP project video (Olson, Sarah et al., 2023).*

Historically, research done “on” Indigenous groups has followed a pattern whereby non-Indigenous researchers take advantage, dehumanize, and lie about the people they are studying (Smith, 2012). Filmmakers must be extremely careful and ensure their work proceeds as a joint effort, including elements that call for creating a script or leading the storyline (Chanan, 2021). To gather additional insight on documentary filmmaking, we reviewed the 2023 project and met with Sarah Olson, a member of the project team, to discuss technical considerations and any recommendations in terms of conducting interviews. Her work on this project and background in filmmaking made her a helpful resource during the early stages of the research process. She highlighted the importance of taking care to provide a strong foundation with good-quality audio. Though the quality of the video is also crucial, good-quality audio can make a greater impact on the audience. In addition, Olson advised the team to prepare for a variety of possible lighting conditions, high wind speeds, unpredictable weather, and low temperatures. She also provided a warning about the strength of the sun in the region and the importance of protecting the equipment.

Beyond the technical skills, Olson highlighted the importance of allowing interviewees to shape the conversation, suggesting that we should treat interviews as conversations with new friends. She went on to explain that building a rapport is more important than asking the right questions. While good questions are important to creating an effective film, it is essential to note the fact that we will be conducting this project with the community, rather than for the

community (S. Olson, personal communication, November 8, 2024). Incorporating this advice into a careful, respectful, and collaborative approach will empower us as storytellers to create a meaningful film that honors the voices and experiences of the people.

## **2.6 Key Research Takeaways**

Our reading, research, and communication have highlighted several key ideas that will guide our future work and help us become effective listeners and storytellers. One important takeaway is the recognition of diverse knowledge bases. We should not only consider western scientific knowledge in a project like this; indigenous knowledge offers unique insights into environmental restoration and bridges the gap between ecological stability and cultural well-being. Appreciating this knowledge will benefit us as interviewers and students learning about and telling the story of the Wairarapa region. Another major takeaway is that restoration should not fall to a single group or organization. Like storytelling, restoration is a collaborative effort. Shared decision-making and working with communities, rather than for them, are crucial to success. Through collaboration and inclusivity, we hope to foster trust and sustainability while addressing ecological challenges.

# Chapter 3: Methodology

The goal of this project is to create a film that highlights the potential for plant restoration to revitalize Wairarapa Moana. To achieve this goal, we have identified the following objectives:

1. Document the interconnectivity of the holistic Wairarapa region.
2. Explore the balance of perspectives and cultural identity through the lens of plant practices.
3. Investigate the investments and the impact of restoration on the local community.

This chapter outlines the strategies that the team will use to achieve our objectives in greater depth (see Figure 3.1).

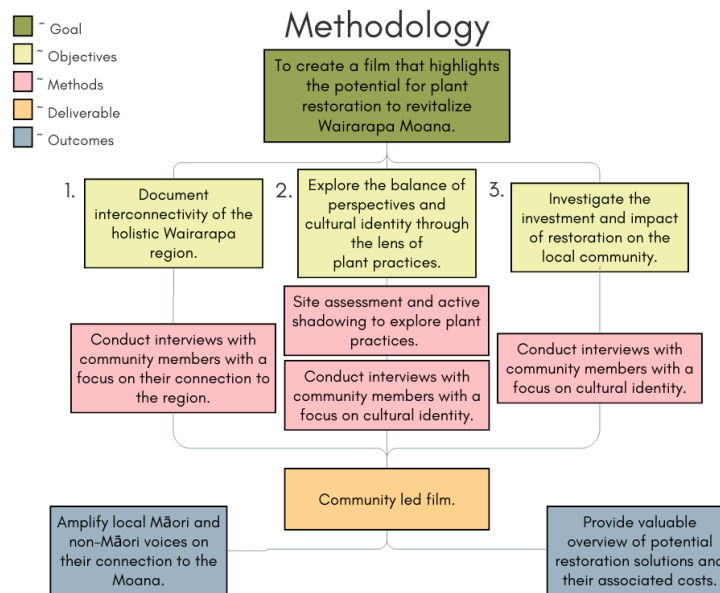


Figure 3.1: Flowchart depicting goal, objectives, methods, and expected outcomes.

## 3.1 Interviews, Site Assessments, and Shadowing as Primary Methods

To achieve the project goal and fulfill each objective, we will conduct open-ended interviews with regional stakeholders. Our partners, Ra Smith and Ian Gunn, will carefully select and connect the team to interviewees based on their extensive knowledge of the area and its people. These stakeholders will reflect the many different cultural and economic aspects that

create interest in the region. A wide range of stakeholders will minimize bias and emphasize the balancing of different opinions.

These open-ended, in-person, filmed interviews allow the interviewees the freedom to tell their own stories. Our purpose in these interviews is to “enable people to express what they want to say and to find some way of understanding it” (Ward, 2014, p. 41). We will utilize decolonized interview techniques such as inviting the interviewees to share stories and educate us, rather than just utilizing straightforward questions or asking questions with the hope of getting specific answers. As a part of this approach, we will not be creating an extensive list of questions in advance. Instead, we will come up with prompts to help spark conversation. We will adapt these prompts as we conduct interviews based on the responses and feedback we receive. This approach works to avoid coming across as disrespectful or falling into the trap of preconceived notions distracting us from what interviewees are saying (R. Smith & I. Gunn, personal communication, November 3, 2024).

Interviews will be one-on-one and in the Moana. This will promote culturally sensitive conversations in the hope of creating a comfortable environment where interviewees’ stories can flow freely. During the interview process, cameras will be recording conversations. We will use cameras to capture multiple angles of the interview. This not only ensures footage in case of technical difficulties but allows choosing between shots depending on which one better reflects the tone of the conversation. Additional group members will take still shots of interview participants for use in our report. Our final group member will be monitoring audio quality of participants’ microphones as these interviews will be outdoors in the notoriously windy Wellington region.

To support these interviews the team will also conduct a site assessment of the region, led by our collaborators who have very strong connections to the land. This site assessment will prioritize areas of the region that our collaborators regard as relevant to the project. This could include touring regions such as the Wairarapa coastline, exploring flora in local forests, and guided tours of local farms. The site assessment will include taking photographs and B-roll that will supplement the primary footage (A-roll) collected in interviews. We will use this media in both our report and deliverable.

We hope to include participant observation or shadowing in our film, to document first-hand encounters of what participants share in oral interviews. These experiences may include recording farmers as they interact with crops and livestock, learning from Māori about plants that are taonga, or learning from a practiced healer preparing rongoā remedies. We will endeavor to listen with care and co-create the content with community partners as we participate. (Wästerfors, 2018). Interviewing stakeholders during participant observation introduces challenges not faced in our sit-down interviews. With our multiple film points and microphones, we will film our interview participants from multiple angles (A-roll) as they “walk and talk” (V. Bhat, personal communications, November 7th, 2024). Group members who aren't filming the interviews will engage in filming B-roll, taking photographs, and monitoring the audio.

### **3.2 Document the Interconnectivity of the Holistic Wairarapa Region.**

Our first objective is to document the interconnectivity of the holistic Wairarapa region. We will achieve this objective through the interviewing process as described above. To meet this objective, we will specifically be using interviews to capture stories from people with a strong interest in the region about their connection to the Moana. Their stories can range from being about strong cultural connections from growing up in the region to how the lake supports their livelihoods. These stories will provide details into the story that defines the Moana. Building the story of the Moana, through the people who live with it as a part of them, will provide a true and clear assessment that supports our goal.

### **3.3 Explore the Balance of Perspectives and Cultural Identity Through the Lens of Plant Practices**

Considering the balance of perspectives and cultural identity will emphasize the cultural significance of the Moana in our film. We will achieve this through our interview process. Our method of promoting an informal, conversational, setting with interviewees may prompt them to discuss unique perspectives and identity. We will guide interviews with prompts exploring the importance of plant practices to gather stories related to cultural identity.

During the site assessment, we will further our understanding of differing perspectives and cultural significance. Outside of interviewing, however, active shadowing and participant

observation will be the most effective methods for achieving this objective. Whether it's farmers, practiced healers, or other locals, the hands-on nature of this method will be essential in fully grasping how stakeholders connect and identify themselves with the area. Successfully applying these methods to highlight perspectives and identity is imperative in a film highlighting a region like Wairarapa Moana.

### **3.4 Investigate the Investments and Potential Impacts of Restoration**

To meet this objective, we will conduct interviews to better understand the investment required by restoration. Interview prompts for this objective include, “What does change look like and what would it take to occur?”, and “If change or restoration has occurred, has it impacted your life?” These prompts allow us to understand the cost of restoration and the impact change has had on interviewees. While interviewing we will observe best practices in decolonized interview techniques (L. T. Smith, 2012). Additionally, through good filmmaking and editing techniques, we will accurately convey the cost of change regarding each of the major stakeholders' lives, whether through a physical price or an impact of change.

### **3.5 Proposed Timeline**

As previously stated, we will conduct this project in collaboration with our collaborators and the community, making it subject to rapid changes in the field. Table 3.1 outlines the estimated schedule we plan to follow. The team aims to complete the interviewing and recording process by week 5, allowing sufficient time for final sound and video editing. However, this timeline may shift if participants and partners are not available until later. Additionally, the team may find it beneficial to spend more time on site assessment or begin the final report earlier.

Timeline	Jan. 11 - Jan. 18	Jan. 19 - Jan.25	Jan. 26 - Feb. 1	Feb. 2 - Feb 8	Feb. 9 - Feb. 15	Feb. 16 - Feb 22.	Feb. 23 - Mar. 1	Mar.1 - Mar 8
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
Site Assessment	█							
Interviewing		█						
Recording		█						
Video Editing		█						
Sound Editing		█						
Final Report						█		

*Table 3.1: Proposed Project Timeline.*

## Chapter 4: Conclusion

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Wairarapa Moana is a natural treasure for Aotearoa that serves as a sanctuary for native flora and fauna. Its waters reflect ancestral connections and stories, sustaining Māori culture through generations. The region showcases the interconnectivity of ecosystems and highlights how human action can shape the condition and prosperity of an ecological community. Through this project we hope not to provide a single solution to the issue of declining water quality, but rather to explore the local deep-rooted connections to nature and culturally important plant practices that have the potential to restore the land. We aim to create a film which amplifies the voices of the people who depend on the Moana and encourages an open flow of ideas and perspectives.

This project not only connects with the local community but also aligns with several of the United Nations Sustainable Development Goals (SDGs). These goals aim to address critical global issues to provide a stable future for all (United Nations, n.d.). By creating a film that highlights the potential which plants have in restoring the Moana, the project will raise awareness about the local ecology and support sustainable community development which is Goal 11 of the SDGs. It will also combat the impact of climate change and support the health of life both above and below the water which are consistent with Goals 13, 15, and 14, respectively. Most importantly, this project pertains to Goal 3 as it continues efforts to ensure the health and wellbeing of the region's people. (Figure 4.1)



Figure 4.1: United Nation Sustainability Goals pertaining to our project. (United Nations, n.d.)



As our preliminary research concludes, we are incredibly grateful for the opportunity to work on this project. We look forward to continuing to work with our collaborators and will present our proposal for discussion upon our arrival.

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## Appendix A: Recording Consent Form

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The following appendix contains a consent form that the team will present to each interviewee prior to their interview. Based on the responses provided on the consent form we will respect their wishes regarding the information that will be used as part of our final project.

### Recording Consent Form



We are a group of five students from Worcester Polytechnic Institute (WPI) in the United States. We are conducting interviews to learn more about the perceptions of Wairarapa Moana Restoration. If you are willing to participate in this project, please read and note your preferences on this form. The final results will be made public.

Note: If you would not like to appear in audio or video recordings (see first two questions) the team will observe and take notes throughout the interview in place of recording.

Do we have your permission to record video of this interview?

Yes  | No

Do we have your permission to record audio of this interview?

Yes  | No

Will you allow us to include your name and other identifying information (such as a photo)?

Yes  | No

Will you allow us to use your words for use in our final report?

Yes  | No

I understand that WPI will publish these interviews for educational purposes and make them available to the public.

Signature:

Print:

Date: