



Cawthron Institute

Restoring vital ecosystems: Seagrass for the future

PROJECT TYPE

Restore the Meadows Seagrass Research Programme.

POTENTIAL IMPACT

Revive vital marine habitats, empower communities, and create a scalable model for coastal restoration across Aotearoa New Zealand.

SCALE AND DURATION

1. \$750k – Development
 2. \$750k – Proof-of-concept restoration site
 3. \$1m – Dedicated seagrass nursery
- Plus, enquire about supporting a student scientist.

Beneath the surface of our coastal waters lies an unsung hero: seagrass. These underwater meadows are some of the world's most valuable habitats.

Seagrasses exist at the critical land-sea interface, growing on every continent except Antarctica. These biodiversity hotspots serve as nursery grounds for fish, natural water purifiers, and can contribute to climate change mitigation through carbon storage.

Despite their immense value, seagrass meadows have suffered declines globally at an alarming rate due to human activity. Restoring these ecosystems is critical to reversing the damage and rebuilding resilient coastal environments.

Looking ahead, we envision a groundswell of kaitiakitanga across Aotearoa New Zealand, with thriving seagrass meadows becoming a familiar and cherished part of our coastal landscape. Our actions will empower communities with a deeper understanding of these underwater treasures – and the tools to restore them – fuelling a collective commitment to nurturing their recovery. Marine biodiversity and fisheries will increase, and coastal waters will become clearer, leading to improved environmental, social, and cultural benefits for future generations.

For more information contact



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What we're doing

To be good ancestors, we must create a sustainable future in a changing climate – one where both people and nature thrive. Our team of scientists at Cawthron is on the cusp of a breakthrough. 'Seed-based' seagrass restoration – a cutting-edge method used internationally – is emerging as a game-changer. By collecting and sowing seagrass seeds from flowers at restoration sites, this approach enables large-scale restoration while protecting donor meadows. It's already seen success on the Atlantic coast of the United States, where over 3,500 hectares of seagrass have been restored.

Now we're pioneering seagrass restoration techniques customised to the unique conditions of Aotearoa New Zealand's native species and ecosystems. We've recently published a step-by-step national blueprint to empower iwi/hapū, community groups, and government agencies to take action. The guide includes tested methods for locating, collecting, storing, and germinating seagrass seeds – offering a practical, science-based roadmap for restoration across the country.

Who we are

We are a passionate collective of marine scientists, scientific divers, restoration specialists, and innovators committed to revitalising our oceans. Our work blends science with action, empowering communities through:

- **Cutting-edge research**
Pushing the boundaries of scientific knowledge to meet the urgent needs of ocean health.
- **Innovative solutions**
Designing tools and techniques to guide effective marine restoration.
- **Collaborative partnerships**
Working closely with iwi, local communities, industry, and government to drive impact.

Next Steps

We've laid the groundwork, but key challenges remain. We need to develop reliable methods to grow seedlings in land-based nurseries and to successfully plant seeds and seedlings in the wild. Our next milestone is to establish a proof-of-concept restoration site. This will showcase best practices and act as a catalyst for wider adoption.

Our long-term vision includes a dedicated seagrass nursery to support nationwide research and restoration efforts. With this infrastructure, we can scale up efficiently, reduce pressure on wild seed sources, and support large-scale habitat recovery.

Philanthropic support is the lifeblood of this mission. With your backing, we can turn vision into action – restoring vital ecosystems and securing environmental, social, and cultural benefits for generations to come.

How you can help

We welcome partnerships and support to bring this bold vision to life.

Whether funding a specific project component or supporting the full initiative, your investment will help:

- Expand restoration efforts
- Build nursery infrastructure
- Support community-led projects
- Advance cutting-edge marine science

Let's work together to restore the foundations of ocean life. Your support will leave a living legacy for future generations.

For more visit:

cawthron.org.nz/research/our-projects/seagrass-restoration

LEAD SCIENTISTS



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