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Envirotech Education's Moreton Bay Healing Sea Country Program

By

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ENVIROTECH EDUCATION'S MORETON BAY HEALING SEA COUNTRY PROGRAM

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About Envirotech Education

Envirotech Education is an award-winning Registered Training Organisation (RTO) in Australia. It offers first-of-its-kind **accredited vocational** courses in **Marine Habitat Conservation and restoration (MHCR)** and **Sustainability Operations** for its domestic and international students.

The college also offers other courses in the disciplines of Business, Entrepreneurship, Hospitality, and Information Technology. An RTO offers vocational education, resulting in qualifications or statements of attainment recognized and accepted by industry and other educational institutions throughout Australia.

These qualifications can range from Certificate I-IV through to a Diploma Level. Diplomas can sometimes be recognized for university credit. **The college's accredited courses can be seen from the links below:**

- <https://envirotech.edu.au/en/qualifications/>
- <https://training.gov.au/Training/Details/10749NAT>
- <https://training.gov.au/Training/Details/10750NAT>

Envirotech Education's certificate programs in Marine Habitat Conservation and Restoration

(MHCR) involve online knowledge-based learning and hands-on practical exposure. Each course consists of small, precise, practical units of competencies and skill sets. Participants can learn skill sets relating to conservation and restoration in local ecosystems such as mangroves, coral reefs, seagrass, and shellfish. The specialized skill sets, and micro-credential accreditations qualify people living in coastal areas to perform specialized marine conservation and restoration activities, reducing the need to import externally qualified workers. Envirotech Education is based on the Gold Coast, Australia, but it also has other projects in the Philippines, UAE, and Europe.

Envirotech Education's Vision



In this time of global crisis, where climate change, corporate and government corruption, pandemics, and war overseas dominate headlines, Envirotech imagines a world that is far different and one that is counteracting these destructive forces. Envirotech is committed to a world where humans live in a balanced and interconnected natural world.

Envirotech envisions a world in which humans are actively regenerating the ecosystems that they have damaged or destroyed, a world in which Indigenous Communities are leading the way with their immense wisdom and connection to the country.

Envirotech is working with Indigenous Communities, who are being trained to be VET teachers, to help the community connect to its culture and protect its land. Students from all around the world have the opportunity to learn from these experienced and passionate Indigenous leaders about how to regenerate land and sea country.

The Lost Islands Project of Envirotech Education



The Lost Islands Project aims to foster the creation of operationally independent vocational training hubs with remote island communities, led locally and supported globally by the Envirotech group. Starting with marine accreditations and continuing to develop with other holistic environmental training programs, the key objective of the island education program is to foster the restoration of island biodiversity and help sustainably build the local economy.

Under this project scope, a course is designed to teach marine conservation and restoration knowledge and generate life-changing learning experiences. The project aims to connect with local needs to create local jobs and support local ecosystem conservation and restoration activities.

In remote communities, the need for university degree requirements and marine VET qualifications has led to limited Indigenous community engagement with marine ecosystem management projects. The gaps also result in very high marine restoration project costs that prevent projects from progressing in remote communities due to the local skills gaps and the need to import external marine experts and specialists for entry-level jobs.

Around the world, governments, financial institutions, non-governmental organizations, and businesses are joining efforts to conserve and restore ecosystems to reverse human activity's negative impact. However, such efforts have been unsuccessful in mitigating negative impacts due to the inability to develop effective practical training and adopt regenerative practices, especially in the marine field.

Marine Habitat Conservation & Restoration (MHCR) is Australia's first-of-its-kind Vocational Education and Training (VET) course for Marine Habitat Conservation and Restoration training, which can lead to employment generation for Indigenous communities in the marine sector. Outcomes may extend to projects that could involve coral nurseries, mangrove nurseries, marine aquaculture, and oyster reef restoration, among others.

Restoration of marine habitats will support the rejuvenation of fish stocks and enrich ecosystem services to balance our increasing consumption of and impacts on marine life. These regenerative projects will also act as buffers and are intended to reduce the impacts of climate change and other human impacts such as floods, storms, bleaching events, pollution, and erosion.

The college supports these training hubs through their development process and assists local communities in becoming independent over a 1-3-year span. Students from Australia and overseas can learn ecosystem management, conservation, and restoration from these island communities. The college's long-term goal is to facilitate knowledge exchange between Indigenous communities and the VET sector and help establish future environmental leadership programs.

Lost Islands Project - Moreton Bay Healing Sea Country Program



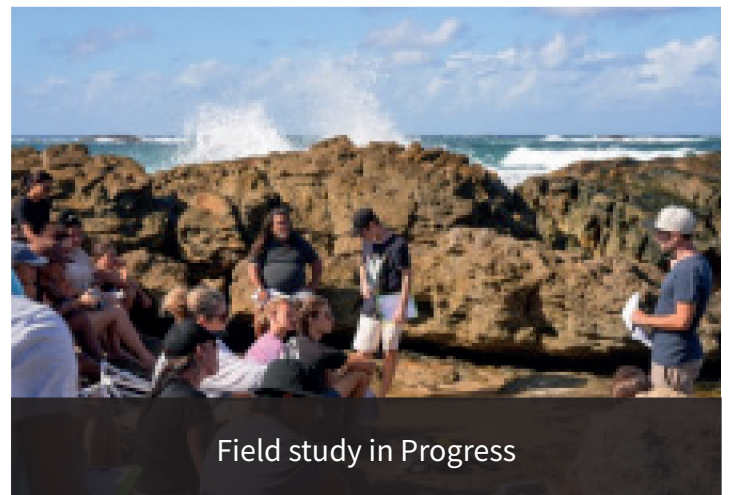
Envirotech Education's first funded course was delivered in Moreton Bay, Queensland. The course focused on training Indigenous youth, with a cohort of about 25 students. Envirotech received a grant from the National Indigenous Australians Agency (NIAA) to teach Cert II in Marine Conservation and Restoration, Certificate IV in Training and Assessment, and Open Water Diving Certification to enrolled students.

Along with the qualifications, the students will be hired for a six-month period to build further skills, support the creation of regenerative projects, and help build a VET training hub in Moreton Bay so future students can come and study. The Certificate IV in Training and Assessment is essential for graduates to be able to teach at a vocational level.

The program's objective is to empower the Moreton Bay Island community to take environmental initiatives into their own hands and create an accredited local environmental workforce. This creates a win-win situation for the Earth, sea, and local communities. The program aims to create an island education hub, which Envirotech will assist in becoming an independent island-based RTO within five years.



Students are in a Field study aligning with the Spirits of Australian Vocational Education Model



Field study in Progress

The local Need

A recent severe flooding event in Moreton Bay (February 2022) has led to unprecedented levels of silt, sediment, and pollution going into the Bay. It is estimated that 5-10 times more sediment than the previous most significant floods in the modern era (2011) has entered the Bay. In this event, 80% of the seagrass beds were killed, and it took 7 years for the seagrass to re-establish itself in the Bay. Many marine populations, including dugongs and turtles, depend on the seagrass, and the extent of the damage is yet to be determined.

One preventative solution for future events is ensuring Moreton Bay has healthy oyster reefs. Oysters once covered the Bay but were extracted for building and food through the 19th and

20th centuries, so very few reefs remain. Oysters filter the water, provide habitat for multiple marine animals, and hold the sediment together. Seagrass thrives with healthy oyster reefs. In order to have healthy seagrass beds, especially with climate change impacting the Bay more frequently, we need healthy oyster reefs again.

Empowering Traditional Custodians of the Bay to look after and regenerate their Sea Country, including oyster reefs, seagrass beds, mangrove habitats, and coral reefs, will be one solution to this crisis. Restoration of riparian areas upstream will also be critical to limiting the amount of sediment entering the Bay. The solutions are right in front of us, and the time is now to start regenerating these degraded and essential habitats.

Healing Sea Country - Project Objectives

- Build Island internet capacity, access, and infrastructure, as well as assist with technological literacy.
- Train 20-30 Traditional Custodians (focus on youth) of Moreton Bay in
 - Cert II Marine Conservation and Restoration
 - Cert IV Training and Assessment
 - Open Water Diving
- 6 months of employment with Envirotech for participants
- The creation of an Indigenous islander VET independent education hub that incorporates marine protection STEM with Indigenous marine environmental knowledge and protocols.
- Foster partnerships between the marine conservation and restoration industry, primary producers (oyster farmers, fishers, etc.), and VET training programs
- Upgrade the VET National Marine Environmental Accreditation programs with local Indigenous knowledge, IP rights belonging to the local community
- Create new job opportunities, such as “Blue Economy” entrepreneurship, through mutually agreed marine habitat conservation and restoration projects supporting local communities.
- Provide youth with the skills (technological, social, and ecological) that will empower them to face future social and ecological challenges.



Short-term

Indigenous islanders and coastal inhabitants, in collaboration with Envirotech, will deliver the Marine Habitat Conservation & Restoration Program to conserve and restore habitats and improve community practices in resource management, such as domestic waste and compost management.

Short-term successes aim to gather 20-30 youth to adult leaders (15 – 65 years of age) per island for training and accreditation clusters in 10749NAT Certificate II in Marine Habitat Conservation and Restoration, supported by LLND capacity programs to deliver online, face-to-face, and practical blended modes.

Medium-term

Continue delivery of short-term programs, supporting progress to 10750NAT Certificate III in Marine Habitat Conservation and Restoration. Initiate a Marine Habitat Conservation & Restoration Program at the school level. Expand training to environmental management, waste management, etc., and commence trainer accreditation as parallel programs.

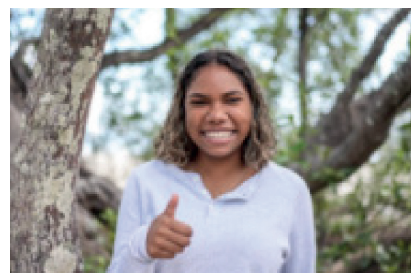
Long-term

Establish VET and university pathways, led locally and supported by long-term collaboration with programs that connect marine science with traditional Indigenous Knowledge, culture, and stories. As a result, new environmental passions, innovation, and jobs will emerge.

Community benefits



1. 1. Creation of income sources and employment opportunities for local communities.
2. 2 Assimilation of values of sustainability in all areas of community life.
3. 3 Regeneration of terrestrial and marine ecosystems through improving access to knowledge and developing practical projects.
4. 4 Improvement in the use of natural resources and reduction in the impact of plastic and non-sustainable resources on the islands.
5. 5 Improvement in sustainable food production, composting facilities, and waste management.
6. 6 In the spirit of renewable resources sustainability, introducing renewable facilities and technologies for reducing the environmental impacts of infrastructure development, e.g., energy systems, water supply, wastewater, and aquaculture.
7. 7 Enhancement of marine biodiversity, the emergence of a disaster-capable local workforce, and efficient fishing methods preventing overuse of natural resources and natural recovery.
8. 8 Design and development of community structures for conservation, restoration, and monitoring of marine and terrestrial ecosystems.
9. 9 Preservation of local and Indigenous people's ancient and traditional ecological knowledge.
- 10.10 Enhancement of the communities' interconnections between People, Place, Nature, and Spirit.



Envirotech Education is an Award Winning Australian Registered Training Organisation (RTO) and the leading vocational education provider in:

MARINE, ENVIRONMENT & SUSTAINABILITY

- 10749NAT - Certificate II in Marine Habitat Conservation and Restoration
- 10750NAT - Certificate III in Marine Habitat Conservation and Restoration
- Dual BSB40120 - Certificate IV in Business (Sustainability) & Certificate IV in Entrepreneurship and New Business
- BSB42315 - Certificate IV in Environmental Management and Sustainability
- MSS50118 - Diploma of Sustainable Operations

HOSPITALITY MANAGEMENT

- Triple SIT30821 Cert. III in Commercial Cookery, SIT40521 Cert. IV in Kitchen Management & SIT40621 Cert. IV in Catering Management
- SIT50416 Diploma of Hospitality Management

DIGITAL MEDIA & INFORMATION TECHNOLOGY

- ICT30120 - Certificate III in Information Technology

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