



ghems

Capability Statement



2022 Telstra Best of Business Awards

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State Finalist



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About Us

GHEMS is a proudly Western Australian family-owned business, committed to achieving positive business, community and environmental outcomes for WA.

For more than 35 years GHEMS has delivered services in the specialised fields of:

- Revegetation (ecological rehabilitation and carbon farming);
- Land and natural resource management (agroforestry, conservation and protected area management);
- Native seed collection and supply; and
- Hydromulching and hydroseeding.

Purpose & Vision

Our purpose is to build a sustainable, growth-orientated business within the environmental services industry, focused on the core principles of good soil health, erosion control, soft surface treatments, native seed and revegetation.

Our vision is to grow 'Corridors of Green' throughout Western Australia — helping to restore some of our state's unique and biodiverse ecosystems.



Acknowledgement of Country

Ngala kaaditj Whadjuk moort keyen kaadak nidja boodja

We acknowledge Whadjuk Noongar people as the original custodians of the land on which we are based.

GHEMS acknowledges the Aboriginal and Torres Strait Islander People as the original custodians of this country, recognising their connection to land, waters and community. We respect their cultures and Elders, past, present and emerging.

Collaboration

An integral part of our success is our collaborative approach to working and long-standing relationships with not only our clients, but also our ability to tap into our industry alliances and work with experts, specialists and sub-contractors where needed. GHEMS actively engages in Aboriginal participation in all of our major revegetation projects.

We maintain memberships to key professional industry bodies, including the Revegetation Industry Association of Western Australia (RIAWA) and Environmental Consultants Association WA (ECA).



Key Services

Revegetation

Our experienced and professional team works closely with our clients to design, develop and implement cost-effective methodologies and solutions. Through hands-on experience, we deliver best-practice environmental outcomes for our clients to meet their management objectives and regulatory requirements.

We provide the full suite of revegetation works from provenance/targeted native seed collection, processing, storage, supply and pre-treatments, to ground/site preparation, erosion control, soil stabilisation, seeding, planting (tubestock and mature stock) and weed control. We have worked closely with clients to successfully deliver on large-scale carbon farming projects.

We have experience in using a number of revegetation methods, techniques, equipment and machinery for site-specific conditions. A key point of difference is our ability to offer technical advice on native seed, plant mixes and ground-preparation requirements to suit site-specific conditions and deliver on company objectives.





Native Seed Collection and Supply

Native seed collection and supply is a principal trading activity for us and we maintain one of the largest native seed banks/stores in WA.

Our trained and experienced team collect, process, store, pre-treat and supply native seeds from across WA, specialising in species endemic to the Swan Coastal Plain bioregion.

GHEMS is accredited by RIAWA and all our seed collectors are licensed according to the Wildlife Conservation Act 1950 of WA. All our seed collection and harvesting, and seed processing and storage methods adhere to industry best practices and standards.

Seed is processed using specialised equipment including Mk3 clark cleaners, dehullers, threshers, vacuum separators, and a zigzag aspirator. Seed is stored in a custom-built, climate-controlled facility.



Hydromulching & Hydroseeding

GHEMS is a market leader in the specialised field of hydromulching, which is used for dust suppression, erosion and sediment control, and revegetation ('hydroseeding'). We maintain a large fleet of specialised 4x4 hydromulch trucks and a significant inventory of hydromulch materials and products to successfully undertake any hydromulching and hydroseeding project.

Hydromulch provides cost-effective short-to-medium term dust suppression. Paper pulp hydromulch is the most common type of hydromulch used in WA.

Erosion control hydromulch provides a physical barrier on the soil's surface resistant to water and wind erosion. The hydromulch slurry is generally of a wood fibre base, and includes types such as 'stabilised mulch matrix', 'bonded fibre matrix', 'hydraulic growth media' or 'flexible growth media'. GHEMS maintains a large stock of the various types of erosion control hydromulch and can supply and install the most appropriate for each site.

Hydromulch is particularly suited to large broadacre sites, as well as areas where site access is difficult or unsafe, such as steep batters and embankments. When used in revegetation, hydroseeding provides a method of broadcasting/dispersing seed, controlling erosion and stabilising the soil surface to allow seedlings to establish and applying fertilisers and other soil amendments.

Land and Natural Resource Management

Land and natural area management involve works such as revegetation, weed control (chemical, manual and mechanical), pest control, fencing, vegetation brush-cutting, pruning and slashing. GHEMS provides ground-based weed and vegetation surveys to assist with vegetation and habitat assessment, management, mapping and reporting.

A key aspect of land and natural area management is weed control. Competition for moisture and nutrients from weeds adjacent to newly planted seedlings or trees is a major cause of failure in revegetation. GHEMS maintains a full range of weed spraying equipment and its fully licensed and trained staff members are capable of conducting weed control programs as part of site preparation and maintenance works.

The company boasts a good knowledge of weed species and treatments based on site conditions and species present. We have conducted works across all scales including targeted weed control and maintenance activities across a range of ecosystem types.

Ground-preparation is one of the main limiting factors restricting the ability of vegetation reinstated to meet completion criteria and project objectives. GHEMS is able to offer technical advice on, as well as undertake, ground-preparation works, soil amendments or treatments, fertilising regimes, topsoil management and final soil surface treatments appropriate to site conditions and the intended vegetation and species re-instated.

Our earthworks capabilities extend to include erosion and sediment control via jute matting, coir logs, rock gabions, hydromulching and hydroseeding.







Key Projects

Northlink WA - Stage 2, Great Northern Connect JV: BGC Contracting & Laing O'Rourke

GHEMS installed approx. 1,200,000 tubestock seedlings, 500 kg of native seed (50 kg supplied by GHEMS) and >1,000 mature trees as part of the largest revegetation works undertaken by Main Roads WA to date.

GHEMS established a nearby nursery holding yard with a temporary irrigation/reticulation system to hold and harden off 100,000 tubestock seedlings weekly. Maintaining a planting crew of up to 30 staff, the 1.2 million seedlings were installed in 45 days, with around 25,000 seedlings planted per day.

As part of an extension to GHEMS scope of works, maintenance works included ongoing watering of the more than 1,000 mature trees, and infill planting of 450,000 tubestock.



Native seed & plants

- 1,200,000 tubestock seedlings
- 500kg native seed
- 1,000 mature trees



Planting crew

- Up to 30 crew members
- Around 25,000 seedlings installed per day
- Works completed in 45 days



Maintenance works

- Watering of 1,000 mature trees
- Infill planting 450,000 tubestock seedlings





Gateway WA Perth Airport and Freight Access Project Main Roads WA

Our initial scope of works included the install of approx. 700,000 tubestock seedlings, 300 kg of native seed and 2,600 mature trees as well as weed control for the maintenance period.

Works were extended to include the install of 490,000 seedlings, 100 kg of native seed and 2,500 mature trees. Weed control was undertaken across an area in excess of 100 Ha.



Native seed & plants

- 700,000 tubestock seedlings
- 300kg native seed
- 2,600 mature trees



Maintenance works

- Weed control over 100 Ha
- 490,000 tubestock seedlings
- 100kg native seed
- 2,500 mature trees



Mitchell Freeway Extension - Burns Beach Rd to Hester Ave CPB Contracting

GHEMS installed approx. 600,000 seedlings, 290 kg of native seed and 1,000 mature trees.

GHEMS established an on-site holding nursery yard with temporary irrigation/reticulation to hold and harden off up to 50,000 seedlings weekly.

Maintenance works included pest control, mulching, weed control over an area of more than 60 Ha and monitoring and reporting on the performance of the revegetation works.



Native seed & plants

- 600,000 tubestock seedlings
- 290kg native seed
- 1,000 mature trees



Facilities established

- On-site nursery with irrigation/reticulation
- Capacity to hold 50,000 seedlings



Maintenance works

- Mulching and weed and pest control over 60 Ha
- Monitoring and reporting on revegetation performance

Southern Suburbs Railway Line Rail-Link Joint Venture

GHEMS provided a turn-key solution for the revegetation and landscaping works, which included project management, revegetation plan development, grass-tree and zamia palm recovery, site-preparation (including topsoil and mulch spreading), supply and install of native seed, seedlings and mature trees, followed by a four (4) year maintenance period of infill planting, weed control, and monitoring and reporting.

Approximately 2,000 zamia palms (*Macrozamia riedlei*) and 8,000 grass-trees (*Xanthorrhoea preissii*) were recovered and held in a purpose built holding nursery, with GHEMS achieving a 90% recovery/survival rate.



Native seed & plants

- 8,000 grass-trees recovered and transplanted
- 2,000 zamia palms recovered and transplanted
- 90% survival rate achieved



Facilities established

- Purpose built holding nursery with irrigation/reticulation
- Capacity to hold 10,000 mature grass trees and zamia palms



Health & Safety, Environment & Quality (HSEQ) Management

Based on over 35 years' experience in the environmental industry, GHEMS conducts its business operations to the highest international standards.

We are proud to have established systems certified to:

- ISO 45001:2018 — Health and Safety Management
- ISO 14001:2015 — Environmental Management
- ISO 9001:2015 — Quality Management.

Through our HSEQ Management System, we have a proven track record of managing risks and minimising impacts across our range of services.

We strive to:

- Have ZERO incidents and injuries;
- Promote our staff's professional development;
- Minimise pollution and environmental impacts;
- Satisfy client requirements;
- Comply with health and safety, quality and environmental regulations;
- Continually improve our management systems.



The Team



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MANAGING DIRECTOR



Brayden Hill
SENIOR MANAGER



Glen Louwrens
PROJECT MANAGER



David Hodgkinson
PROJECT ENGINEER



Tegan Clarke
PROJECT SUPERVISOR



Kelly Parnham
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