



# Extractive Industry Association of the Northern Territory Inc.

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### A More Environmentally Friendly Sand Extraction Industry for Darwin

Grant: This Grant was approved by the Commonwealth Government of Australia acting through the Department of Sustainability, Environment, Water, Population and Communities/Department of Agriculture, Fisheries and Forestry

Project Name: Extractive Industry Improved Response to Biodiversity for Howard Sand Plains

Lead Agent: Extractive Industry Association of the NT Inc.

Partnering Organisations: VDM Consulting (NT) Pty Ltd t/as EcOz Environmental Services  
Conservation Volunteers  
NT Department of Natural Resources, Environment, the Arts & Sports

Supporting Agencies: NT Department of Resources  
NT Department of Land & Planning  
NT Department of Natural Resources, Environment, the Arts & Sports

Duration: January 2011 to July 2012

Target Areas:

- Identify high value conservation areas for conserving *Utricularia* & *Typhonium* species and the Howard River Toadlet.
- Removal of outlier infestations of gamba grass, mission grass and mimosa from Scrubby Creek.
- Assessment & rehabilitation of extant tenements for improved biodiversity-oriented objectives for Scrubby Creek.
- Capacity building for minimal impact and rehabilitation technique.

Key Contacts:

June Lurssen - CEO Extractive Industry Association of the NT Inc	Grant Coordinator, Stakeholder Meeting Management and Reporting.
Sandra Johnson - Life Member Extractive Industry Association of the NT Inc	Key driver and supporter of Proposal for this Grant.
Ann Grattidge - Environmental Scientist VDM Consulting (NT) Pty Ltd/EcOz	Overview of the project, specific information regarding the Howard River Toadlet and Assessment of Rehabilitation.
Steve Reynolds - Subcontractor VDM Consulting (NT) Pty Ltd/EcOz	Specific information regarding the Howard River Toadlet.
David van den Hoek - Subcontractor VDM Consulting (NT) Pty Ltd/EcOz	Vegetation identification and assessment for minimal impact and rehabilitation.
John McNeur - Regional Manager Conservation Volunteers	Specific information regarding weed management for the Scrubby Creek area.
Dave Liddle - Ecologist, Biodiversity Conservation NT Department of Natural Resources, Environment, the Arts & Sports	Specific information regarding carnivorous plants such as bladderworts and the herb <i>Typhonium taylori</i> .

The Howard Sand Plains are a Northern Territory site of conservation significance. This land type features deposits of deep sand associated with ancient river flows. Due to the unique drainage and conditions created by these inland pockets of sand, a wide range of plant and animal species specifically occur within this land type, including species known only from within the greater Darwin region.

Sand is needed to support the ever growing construction industry, to build homes for the people of Darwin. Most of these sand supplies come from the Howard Sand Plains. We have a dilemma - creating homes for people while also retaining homes for plants and animals, which have taken at least tens of thousands of years to evolve. At least 26 species of carnivorous plants (Bladderworts) are found within the sand plains and occur there at an extraordinary density. The Howard River Toadlet, a small native burrowing frog, only known to the greater Darwin region is also only found within very small patches scattered throughout the sand plains of the Darwin region. In addition to the Bladderworts and Howard River Toadlets the sand plains also feature a rich and distinct mixture of plant and animal species which occur in combination due to the nature of the deep sands. The sand plain habitat plays a significant role in the drainage and functioning of other surrounding habitats.

The Extractive Industry Association is restructuring their approach to ensure minimal impact to the biodiversity values of the Howard Sand Plains. They are achieving this through a Caring for Our Country Project which started in early 2011.

The Caring for our Country project aims to build alliances between the Extractive Industry, the Department of Natural Resources, Environment, the Arts & Sports, a local environmental consultancy VDM Consulting (NT) Pty Ltd/EcOz and the Conservation Volunteers. As a result of the alliance we will build new knowledge and develop best practice recommendations. This technical team will work with the Extractive Industry Association to:

- Improve the understanding of rare and threatened species
- Set aside select areas to protect these threatened species
- Remove significant weeds within the Scrubby Creek area particularly Gamba Grass
- Improve the practices of sand extraction so as to minimise impact to the sand plains and their species in the first instance
- Maximise the opportunity for disturbed areas to return to a condition as similar to that prior to commencement of extractive mining

#### **LINKS FOR PROJECT INFORMATION AND REPORTS CREATED AS A RESULT OF THIS GRANT**

VDM Consulting (NT) Pty Ltd	Powerpoint Presentation: Howard Sand Plains – Improved Response to Biodiversity Maps: Howard River Toadlet Survey and confirmed populations Information Flyer: Guidelines for Minimal Impact to the Howard River Toadlet
Conservation Volunteers	Report: Scrubby Creek – Invasive Species Management Strategy and Interpretive Flora and Fauna Notes

#### **LINKS TO FURTHER INFORMATION ON THE HOWARD SANDPLAINS AND THEIR PLANTS AND ANIMALS**

Howard Sandplain Site of Conservation Significance  
<http://www.litchfield.nt.gov.au/uploads/howard%20sand%20sheet.pdf>

Sandsheet Health Factsheet  
[http://www.nt.gov.au/nreta/natres/natveg/brochures/pdf/220310\\_sensitive\\_sandsheet.pdf](http://www.nt.gov.au/nreta/natres/natveg/brochures/pdf/220310_sensitive_sandsheet.pdf)

The genus *Utricularia* in the Northern Territory

[http://www.nt.gov.au/nreta/wildlife/plants\\_herbarium/pdf/Utricularia.pdf](http://www.nt.gov.au/nreta/wildlife/plants_herbarium/pdf/Utricularia.pdf)

*Utricularia dunstaniae* Information Sheet

[http://www.nt.gov.au/nreta/wildlife/animals/threatened/pdf/plants/Utricularia\\_dunstaniae\\_vu.pdf](http://www.nt.gov.au/nreta/wildlife/animals/threatened/pdf/plants/Utricularia_dunstaniae_vu.pdf)

*Typhonium taylori* Information Sheet

[http://www.nt.gov.au/nreta/wildlife/animals/threatened/pdf/plants/Typhonium\\_taylori\\_EN/pdf](http://www.nt.gov.au/nreta/wildlife/animals/threatened/pdf/plants/Typhonium_taylori_EN/pdf)

Howard River Toadlet Information Sheet

[http://www.nt.gov.au/nreta/wildlife/animals/threatened/pdf/herps/uperoleia\\_daviesae\\_vu.pdf](http://www.nt.gov.au/nreta/wildlife/animals/threatened/pdf/herps/uperoleia_daviesae_vu.pdf)

#### **LINKS TO FURTHER INFORMATION ON SAND MINING PRACTICES**

Northern Territory Government Advisory Note: Mining Management Plan (MMP) Structure Guide for Extractive Operations

[http://www.nt.gov.au/d/Minerals\\_Energy/Content/File/Forms\\_Guidelines/AA7-011\\_Small\\_Mine\\_MMP\\_Structure\\_Guide.pdf](http://www.nt.gov.au/d/Minerals_Energy/Content/File/Forms_Guidelines/AA7-011_Small_Mine_MMP_Structure_Guide.pdf)

The Victorian Code of Practices for Small Quarries, Department of Primary Industries 2010

<http://new.dpi.vic.gov.au/earth-resources/whats-new/code-practice-small-quarries>

Mine Rehabilitation Handbook, Australian Mining Industry Council 1998

<http://www.scribd.com/doc/25946932/Mine-Rehabilitation-Handbook>

#### **LINKS TO FURTHER INFORMATION ON WEED MANAGEMENT**

Northern Territory Government Advisory Note: Weed Management on Mining Sites

[http://www.nt.gov.au/d/Minerals\\_Energy/Content/File/Forms\\_Guidelines/AA7-017\\_Weed\\_Management\\_Advisory\\_Note.pdf](http://www.nt.gov.au/d/Minerals_Energy/Content/File/Forms_Guidelines/AA7-017_Weed_Management_Advisory_Note.pdf)

Declared Weeds for the Northern Territory

<http://www.nt.gov.au/nreta/natres/weeds/find/legislation/declared.html>

Northern Territory Gamba Management Plan

<http://www.nt.gov.au/nreta/natres/weeds/find/gamba/index.html>



CARING  
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COUNTRY