

# Northstar Floating Islands

## Innovative Design for Large Scale Installations in Numerous Environments



Tannas Conservation Services Ltd

Great Plains Restoration Solutions Inc.

### Innovative Design

**Modular Design:** 1.22m X 2.44m islands provide 2.5m<sup>2</sup> of rooting area and up to 3m of below and above ground growing area. Islands have anchor points on each corner allowing them to be locked together in numerous configurations

**Simulating Natural Environments:** The Northstar islands are fabricated in such a way to create a growing environment simulating a natural wetland. The islands include a natural growing medium (soils) that can be modified to meet site specific needs. The growing medium extends at least 2.5cm below the water level and up to 7.5cm above the water depending on planting needs.

**Construction:** The islands are built with a hard-plastic shell and a base made up of a PVC coated metal grating to ensure the islands are solid and stable for long term use

**Installation:** Islands are designed so that they are shipped planted and completely ready for installation. Islands are simply launched and locked together and anchored on site. Up to 300m<sup>2</sup> of islands can be launched by 4 people in a day depending on access.



*Our specialization as plant community ecologists, wetland scientists and native plant propagation specialists has allowed us to develop our islands with a focus on plant growth and replicating natural processes. With versatility in mind we have developed our islands to be easily adapted to our clients needs whether for remediation, aesthetics or habitat creation. Our goal is to deliver a high quality and effective product that is easy to install and maintain.*

## Projects



### Options

Options for installation on the Northstar Islands Include:

- 1) **Wildlife protection** – Installation of grating across the top of islands prevent herbivores from stealing plants during establishment. These metal grates can be used during installation or permanently on the islands.
- 2) **Soil Modifications** - (Texture, composition, nutrients, and depth)
- 3) **Nesting Platforms** – Where habitat creation is important the islands can be changed into effective nesting platforms that can hold over 200lbs of weight and the islands can be modified to become terrestrial in nature (Suitable for many species of waterfowl).
- 4) **Wave Protection** – Modifications to the growing medium and erosion controls used around the growing medium can provide effective wave protection in ponds and lakes that have moderate potential for waves.

### Specifications

#### Northstar Islands

- 1) **Dimensions:** 1.22m wide, 2.44m long, Depth 10cm, planted weight (prior to launch) ~100-150lbs.
- 2) **Materials:** They are made with a hard-plastic shell that provides the flotation and a PCV coated steel grating as the base of the planting area which provides a solid base that can carry over 500lbs
- 3) **Weight:** Planted weight is ~100-150lbs depending on individual specifications
- 4) **Plant Zone Dimensions:** Rooting area of 2.5m<sup>2</sup> and an effective above and below ground growing area of ~3.0m<sup>2</sup> depending on the plants being used.
- 5) **On Water Installation:** Islands are modular and can be locked together with minimal open water between them (~5-10cm).

Designed with installation in mind the islands can be effectively launched by 2 people, but ideally with 4 people for the most efficient installation

## The Great Plains Restoration Solutions Advantage

Based throughout Alberta, Great Plains Restoration Solutions provides products for reclamation, remediation and ecological restoration. Our products are developed and tested by ecologists, plant taxonomists and research scientists to ensure their effectiveness. We are not simply manufacturers of these products, but have developed these products through years of delivering environmental services. We can provide value added services to each of our products such as research support, training in the use of the products, and on the ground experience through our affiliate (Tannas Conservation Services Ltd.)



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