



FLOATING ECOSYSTEM PROJECT MONITORING

Floating Ecosystems provide a low maintenance approach to restore riparian waterway edge ecosystems and hard-edged waterways. Key benefits include, amenity, habitat, aesthetic, ecological value and biodiversity. The monitoring operations and maintenance of the floating ecosystems is typically minimal and can be compared to a typical natural landscape installation and pontoon system.

One of the main benefits of floating ecosystem units is that they require no watering and nature tends to be very effective at managing itself once we provide the floating structure for it to grow on. Systems can be left wild and natural or can involve additional plant care for a more managed visual aesthetic.

Monitoring provides an opportunity to get the most out of your Floating Ecosystems installation with periodic reporting on Biodiversity, Water Quality, and Habitat monitoring reporting can incorporate written updates, data as well as great photography, including waterscape, macro, and underwater images and video perfect for sharing.

The frequency of monitoring varies from site to site and a schedule can be put in to place to match the site conditions and project objectives. Monitoring can be provided by Biomatrix Water or Biomatrix can provide Monitoring Training so that this may be carried out by local stakeholders and volunteers.

Monitoring plans typically decrease over time, often with a set period, and followed by review and less frequent monitoring or monitoring on a as needed basis. Once bird fencing is removed and plants are established the ecology will typically continue to thrive without intervention.

Project monitoring can involve activities related to environmental monitoring, plant care, anchoring, bird fencing, the ecosystem structure and litter collection.

ENVIRONMENTAL MONITORING:

Environmental monitoring provides a great opportunity to observe your ecosystems development and to document and share its progress with others.

Environmental Monitoring can include the following as desired.

1. Macrophyte diversity reporting,
2. Invertebrate diversity and indicator species reporting,
3. Water chemistry, P, N, BOD, COD, TSS, Chlorophyll, Secchi depth,
4. Written and photographic report, for media
5. Waterscape Photography,
6. Macro species photography,
7. Underwater photography and video.

PLANT CARE:

Suggested plant care activities, to achieve different aesthetics as suggested are as follows.

Wild / Native Aesthetic:

1. Generally, allow the planting to grow and evolve as they would in a wild context.

Semi-Wild Aesthetic:

1. Generally, allow the planting to grow and evolve as it would in a semi-wild context.
2. Typically, trim plants in autumn, once per year, removing some plant material and re-incorporating some of the trimmed plant material in to the planting lanes for 3D islands or laying down between plants on 2D islands, to maintain planting media structure.
3. Removal of un-desirable plants, as needed. Occasional, spot planting of target desirable species.
4. General trimming as desired.

Ornamental Aesthetic:

1. Typically, trim plants twice per year once in late spring and once in late autumn removing some plant die back material and re-incorporating some material in to the planting lanes for 3D islands or laying down between plants on 2D islands, to maintain planting media structure.
2. Check for trees taking root, once every 1-2 years, and remove.
3. Removal of un-desirable plants as needed.
4. Occasional, spot planting of target species, seasonal ornamental, etc. as you would with a land based ornamental garden.
5. General trimming as desired.
6. chips are a common mulching and planting media in landscaping projects. They can be used with good effect on Floating Ecosystem within the planting lanes on 3D and 4D systems and with the planting bed on 2D systems. From time to time, wood chips can be added as desired.

FLOATING ECOSYSTEM STRUCTURE:

The floating Ecosystems structure is robust and constructed from durable materials, to limit maintenance requirements. As general good practice, it is useful from time to time to visually inspect the system for any potential wear and tear. It is good practice to have your installation inspected and monitored by an experienced installer every 1-4 years according to site conditions.

Bird Fencing

Where project installations include bird protection fencing, this is intended to be removed after the first full growing season. The push fit stainless steel posts can be removed by pulling upwards and the fencing can be rolled up and recycled or re-used.

Anchoring

Anchor inspection typically involves the inspection of hardware where it connects to the islands, and anchor cable anchor ropes / cables / Guides and a general check of the overall anchoring system as would be carried out with a typical pontoon or mooring system.

Litter Removal

In areas where windblown or washed down litter is present litter removal is suggested as needed to maintain a clean and natural ecosystem. Biomatrix can provide a maintenance service or training following installation as well as periodic inspections as needed if required.

Ecosystem Structure

Connection flanges can be observed as well as anchoring hardware and floats. Maintenance is only required on these elements, in the event of specific wear and tear or when damage from external factors is observed.

CONTACT:

Should you have any questions about the care and maintenance of your new floating ecosystem, don't hesitate to be in touch with the team at Biomatrix, we are here to help, and like to keep in touch with projects as they grow and mature.

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