Technology Informatics Design Endeavour (TIDE)

Request for proposal

Implementation of Rain Garden – Green Oasis project

Issued by: Technology Informatics Design Endeavour (TIDE)

Release Date: 06-January-2026

Last date for submission of quotation: 20-January-2026

Location: 5 Sites across Chennai

Background and Objective

Technology Informatics Design Endeavour (TIDE) is a non-profit organization dedicated to implementing sustainable water management and environmental solutions. As part of our ongoing commitment to urban ecological restoration, we are developing a Rain Garden at the children's park Ashok Nagar in Chennai.

This rain garden project aims to improve stormwater management, groundwater recharge, and urban biodiversity. By utilizing natural filtration processes, rain gardens help reduce surface runoff, prevent waterlogging, and enhance the aesthetics of the surrounding environment. The initiative also aligns with broader climate resilience and sustainability efforts by promoting water conservation and ecosystem-based approaches to urban landscaping.

We invite experienced vendors to submit an request for proposal for the supply of materials, and implementation of a Rain Gardens.

Explanation of Product

A **Rain Garden** is a **shallow, landscaped depression** designed to **capture, filter, and absorb stormwater runoff** from impervious surfaces such as roads, rooftops, and parking lots. It consists of multiple layers, including **soil, gravel, mulch, and native vegetation**, which work together to slow down water flow, remove pollutants, and enhance infiltration.

Key Features of the Rain Garden:

- **Stormwater Management:** Reduces surface runoff and mitigates urban flooding.
- **Natural Filtration:** Removes pollutants such as sediments, heavy metals, and nutrients.
- **Groundwater Recharge:** Enhances percolation and improves local water tables.
- **Biodiversity Enhancement:** Supports native plant species and attracts beneficial insects and birds.
- **Aesthetic and Educational Benefits:** Provides a green space for students to learn about ecological sustainability and water conservation.

Functionality and Process:

1. **Inflow of Water:** Rainwater is directed into the garden via designated inlet structures.
2. **Filtration Through Soil and Gravel Layers:** Water passes through an engineered substrate, where contaminants are removed.
3. **Plant Uptake and Microbial Action:** Native vegetation absorbs excess nutrients while beneficial microbes break down pollutants.
4. **Gradual Percolation and Groundwater Recharge:** Filtered water either percolates into the ground or exits through an overflow structure for controlled drainage.

The treated water will be absorbed into the soil, supporting groundwater recharge and reducing runoff into storm drains. The rain garden will be designed to handle varying rainfall intensities while ensuring minimal maintenance requirements. By incorporating recycled construction waste for berms and utilizing locally adapted native plant species, this project will serve as a model for sustainable urban stormwater management.

Rain Garden Specifications

The following no. of sites has been selected for implementation:

S. No	No. of Sites	Area Category
1	Site 1 -Mathur	132 sq.m (92 Sq.m – Rain garden + 40 sq.m buffer areas)
2	Site 2- Mathur	200 sq.m (120 sq.m – Rain garden + 80 sq.m buffer areas)
3	Site 3- Shenoy nagar	300 sq.m (200 sq.m – Rain garden + 100 sq.m buffer areas)
4	Site 4 - Medavakkam	150 sq.m (150 sq.m Rain garden + 50 sq.m buffer areas)
5	Site 5 - Alwarpet	75 sq.m (50 sq.m Rain garden+ 25 sq.m buffer areas)

Note: These are indicative sizes; final designs will be shared during the detailed implementation phase. Vendors are requested to submit their financial quotation on a per square meter (₹/sq.m) basis for the rain garden implementation inclusive of materials, labor, transportation, and installation. A tentative soil layering for first 3 sites and concept design is attached as annexure for reference purposes.

Scope of Work

The selected vendor will be responsible for executing the following tasks:

3.1 Provide inputs in Design and Engineering

- Analyse the site assessment reports shared by TIDE to determine hydrology, soil quality, and drainage conditions.
- Provide inputs on developing the detailed design plans and technical drawings, including:
    a. Site layout with inlet and outlet positioning.
    b. Layering of filtration media (gravel, sand, soil, and planting media).

c. Flow pathway mapping for stormwater movement.

d. Planting scheme for optimal water absorption and ecological benefits.

e. Overflow and drainage systems to manage excess water.

- Share feedbacks / suggestions on provision of final design specifications by TIDE team for implementation.

3.2 Site Preparation

- Removal of debris, invasive vegetation, and other obstructions from the designated rain garden area.
- Excavation and grading of the site based on the provided design specifications to ensure proper water infiltration and flow.
- Ensure proper levelling and dressing of the site to facilitate drainage.
- Reuse of construction waste where feasible, as per site survey recommendations, to construct berms within the rain garden design.

3.2 Material Procurement & Installation

The vendor shall procure and install the following materials:

- Native Plants: Selection and planting of drought-resistant and pollinator-friendly/ low maintenance native species to be planted in the 3 Zones – Drought, moisture tolerant and wet zones.
- Mulch & Soil Mix: High-quality mulch and engineered soil mix for effective water absorption.
- Permeable Gravel or Drainage Layer: To support infiltration and prevent waterlogging.
- Geotextile Fabric (non - woven): For erosion control and soil layer separation.
- Rain Garden Inlet & Outlet Structures: Efficient drainage structures to direct stormwater. (Inclusive of silt catch pits/extended pipe connections to infiltration tank or storm water drain as per the site context).
- Kerb wall : To install kerb wall around the structure to act as physical/visual barrier.
- Signage Board : To install the approved branding board at the site , whose design shall be prepared by the TIDE team.
- Decorative & Functional Elements in buffer areas : To enable preparation of soil in the buffer areas and Incorporation of natural materials (Plants, etc.) for aesthetic enhancement as approved by the TIDE team
- Any other design elements on approval from the service seeker based on the site needs.

3.3 Construction & Implementation

- Ensure adherence to approved design and environmental regulations.
- Install all components as per specifications to maximize water retention and prevent erosion.

- Construct berms using recycled construction waste, where feasible, for water retention and site stability.
- Conduct post-installation inspections to verify proper functionality and infiltration efficiency.

3.4 Maintenance & Knowledge Transfer

- Provide a detailed maintenance plan, including watering schedules and seasonal care recommendations.
- Conduct a training session for designated personnel on upkeep and sustainability.
- Offer a minimum 2-year warranty on system components and plant establishment support.
- Enable 1 year of maintenance support post implementation of the rain garden.
- Replacement of dead plants within six months of installation.
- Any material defects or structural issues must be rectified within 30 days of notification at no additional cost.

3.5 Additional Requirements

- Obtain necessary permits and ensure compliance with environmental regulations.
- Dispose of non-reusable construction waste responsibly.
- Provide maintenance guidelines, including watering schedules and seasonal care recommendations.

Deliverables

- **Fully operational rain garden** with necessary infrastructure.
- **Installation of a drainage and water collection system** such as inlet, outlet, and overflow systems.
- **Successful planting and stabilization** of native vegetation.
- **Submission of high-resolution images** and documentation of the completed project.
- **Post-installation inspection** ensuring compliance with specifications.

Qualification Requirements

Interested vendors must demonstrate:

- Proven experience in constructing rain gardens or similar ecological projects.
- Knowledge of stormwater management principles and ecological landscaping.

- Ability to source and install native plant species suitable for Chennai's climate.
- Expertise in soil and hydrology assessment for rain garden design.
- Compliance with environmental and urban planning regulations.

Proposal Submission Requirements

Vendors must submit the following documents

1. **Technical Proposal**
   - Approach and methodology
   - Workplan with timeline
   - Team composition and relevant experience
   - Organisational profile
   - Past assignments of similar nature
   - Any certifications, registrations, or licenses required
2. **Financial Proposal**
   - Detailed breakup of costs (deliverable-wise or activity-wise)
   - Taxes and any additional charges clearly mentioned
   - Validity of quotation

All documents should be submitted in PDF format

Evaluation Criteria

Proposals will be evaluated based on:

Criteria	Weightage
Technical approach and Methodology	35%
Relevant Experience & Past Performance	25%
Team qualification & Capability	15%
Financial Proposal	20%
Delivery timline	5%

We look forward to receiving proposals from qualified vendors committed to **eco-friendly urban development and water conservation**.

Deliverables & Timeline

On issuance of work order, the project needs to be completed in each site within 15 days.

Payment terms

- 40% on signing the work order / excavation of soil
- 40% on completion of soil layering work
- 20% on final submission and approval of deliverables.

Payment will be made through bank transfer to the vendor's registered bank account. Any advance payment requested will be provided upon submission of a bank guarantee or a security cheque for the equivalent amount.

Proposal submission method

All proposals must be submitted electronically to:
procurement@tide-india.org
Subject line: "Proposal for <Implementation of rain garden >"
Late submissions will not be accepted.

Deadline for Submission

All proposals must be received on or before: 20.01.2026

Queries & Clarifications

All clarification requests must be emailed to: info@tide-india.org
Deadline for queries: DD.MM.YYYY

Rights of TIDE

TIDE reserves the right to:

- Accept or reject any proposal without assigning any reason
- Request additional information from vendors
- Modify the scope of work based on project needs
- Cancel or terminate the RFP process at any stage

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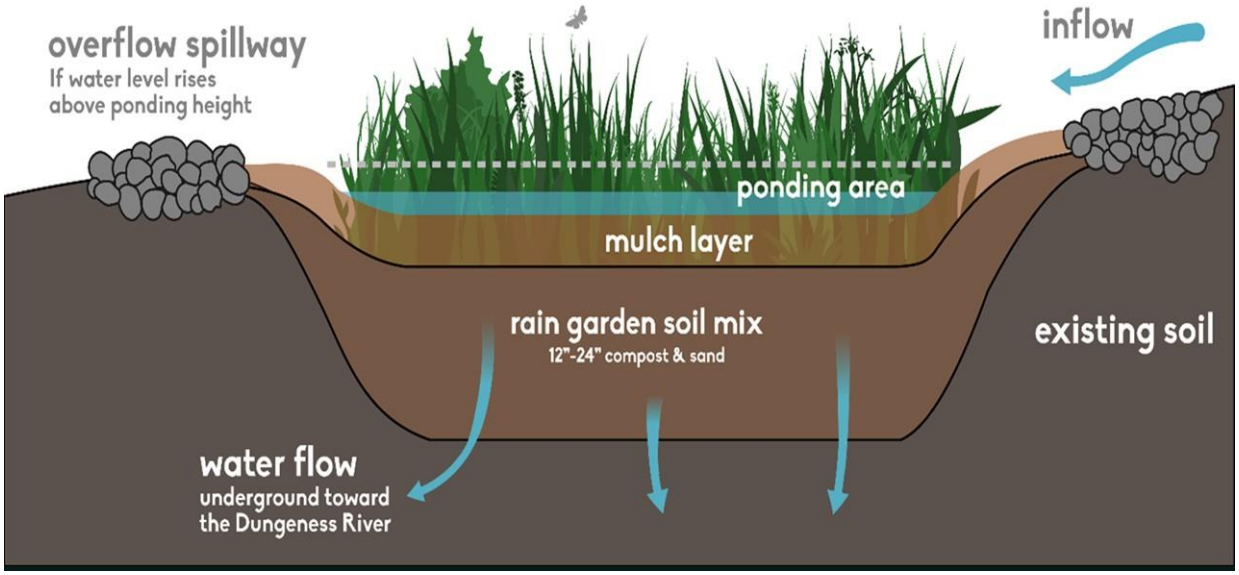
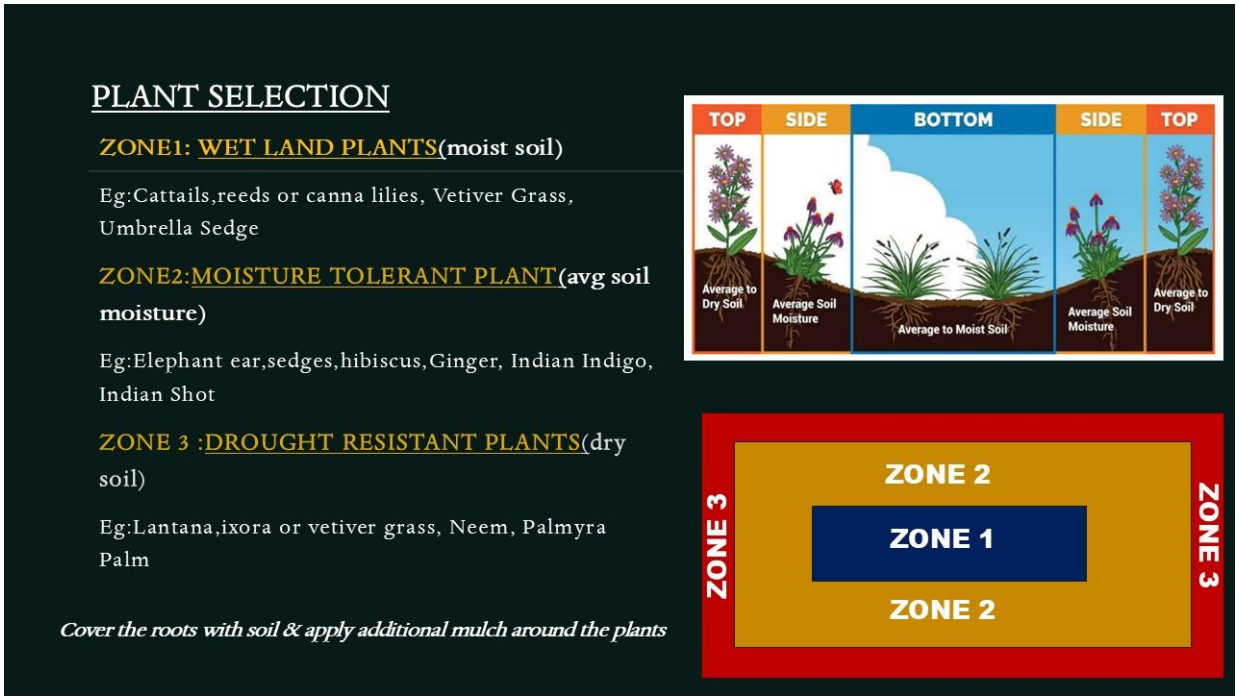
Annexure

1. Concept design of rain garden





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2. Tentative soil layering

SOIL LAYERING

Site 1 - Mathur	Site 2 - Mathur	Site 3 – Shenoy
Infiltration Rate : 60mm/hr : 2.3inch/hr **Percolation Rate** : Fast(water stagnates due to low lying area) **Soil Type:** Loamy Sand	**Infiltration Rate** :72mm/hr : 2.8inch/hr **Percolation Rate:** Fast(water stagnates due to low lying area) **Soil Type:** Loamy Sand	**Infiltration Rate** : 6 mm/hr : 0.25inch/hr **Percolation Rate** : Slow **Soil Type:** Clay Loam
1. **MULCH LAYER(15cm):** Organic Compost/ Vermicompost 2. **TOP LAYER(35cm):** Mix of 50% Coarse Sand , 20% Compost , 30% Red Soil(Only for Planting) 3. **MIDDLE LAYER(35cm):** Mix of 80% Coarse Sand & 20% Gravels 4. **BOTTOM LAYER(35cm):** Medium sized Gravels	1. **MULCH LAYER(15cm):** Organic Compost/ Vermicompost 2. **TOP LAYER(35cm):** Mix of 50% Coarse Sand , 20% Compost , 30% Red Soil (Only for Planting) 3. **MIDDLE LAYER(35cm):** Mix of 80% Coarse Sand & 20% Gravels 4. **BOTTOM LAYER(35cm):** Medium sized Gravels	1. **MULCH LAYER(15cm):**Organic Compost/ Vermicompost 2. **TOP LAYER(35cm):** Mix of 50% Loamy Sand, 20% Compost,20% Coarse Sand(for porosity), 10% Red soil (Only for planting) 3. **MIDDLE LAYER(35cm):** Mix of 70% Coarse Sand & 30% Gravels 4. **BOTTOM LAYER(35cm):** Medium sized Gravels

DEPTH : 1.5m = 150cm (30cm is for the slope, 120cm is for soil layering)