

## SEED PROJECT IDEA

# Convert Impervious Surface to Community Green Space

The following is a project idea for inspiration—ultimately, the Seed Project you choose should be based on your community's climate resilience priorities. Remember that you will have up to \$50,000 to spend on the Seed Project and about 9 to 10 months to accomplish it, so you may need to carve out a piece of the following action to fit those guidelines, and then work together on a plan for financing the next phase. This project sheet provides a suggestion for which tasks might be completed within the scope of a Seed Project; however, communities may have different starting points or capacity to advance projects and should decide which scope is achievable for them.

### Project Description:

This project aims to support flood mitigation and reduce urban heat through the conversion of an impervious or degraded surface to a community green space—one where conversion has high potential to provide these services. In place of the former impervious surface, your community can decide to add a pollinator meadow, shade trees, and/or other community amenities such as a trail, community garden, or food forest. The implemented project may assist the community in increasing stormwater infiltration rates and groundwater recharge, reducing runoff, supporting community mental and physical health through access to green space, increasing biodiversity and carbon sequestration, and providing educational opportunities to increase awareness and understanding of climate resilience, among other benefits.

The scope of this Seed Project includes selecting a site and preparing a concept. The design phase and planting/installation are likely to occur in subsequent phases. After deciding on the selected site(s), either an impervious surface will be removed and replaced, or a degraded surface will be amended and enhanced, with the result being in either case, a community green space that offsets urban heat and/or supports flood mitigation. Restoring healthy ecosystems is also known as rewilding. Typical features of a rewilding project entail application of soil amendment, inoculation, installation of plantings, irrigation, herbivore barriers, furnishings, interpretive markers, art, and old growth forest or habitat nest features. The MVP Project [Ayer Devens Main Street Regional Pocket Forests](#) implemented these features in the development of community green spaces.

### High-level List of Potential Project Tasks:

1. **Form a project team:** Establish a project team that includes municipal staff (consider conservation, parks, public works, and planning), a landscape/ecology consultant, a community stewardship partner (if possible), as well as residents who are likely to be most

impacted by climate change, including members of Environmental Justice (EJ) and other priority populations. These residents can advise on the ideal site for a community green space, as well as what kind of green space should be developed. Once a site is selected (task 3), neighbors or other key stakeholders should be added to the project team to foster a sense of ownership from early stages in the process.

- A community stewardship partner would be responsible for monitoring and maintaining the project, once completed. The community stewardship partner would ultimately manage multiple stewards in an establishment maintenance program. Funding should be allocated in the Seed Project budget to compensate the community stewardship partner to allow a wider variety of people and entities the opportunity to be involved, not just those who can volunteer their time. Planning for subsequent phases should take into account funding for stewards to maintain the project.
2. **Identify the site:** A possible site (or sites) should be identified with input from the project team, community members, and maps and analytical tools. The team should consult resources such as the GEAR tool, which allows users to locate impervious surfaces, as well as the [Site Suitability Form](#) from the Climate Resilience Design Standards Tool and Climate Resilience Design Guidance. The project team should draft evaluation criteria for selecting a site and vet these criteria with stakeholders including EJ and other priority populations. Criteria should include social resilience and equity considerations in addition to ecological resilience. The MVP Core Principles may serve as inspiration as potential categories for criteria. The project team should share the vetted site selection criteria and seek community input on potential sites. Participatory mapping tools and community engagement best practices should be used.
  3. **Vet the site:** Once a possible site (or sites) is identified, the project can proceed after a vetting process has been completed. The site will need to accommodate the proposed project to comply with all local, state, and federal laws and regulations and development best practices. (Please note: if permitting considerations or the presence of conditions that would make the site unsafe for the purposes of this project arise, the project team should select a different site.)
  4. **Develop site concept:** Based on the information collected in Task 3, the project team will identify the preferred community green space to develop and the specific amenities to include. This step should include community engagement so that the expertise and experiences raised by diverse groups of local community members can inform which kind of community green space to create and which kinds of amenities are wanted and needed. A concept-level plan should be developed.

---

### Seed Project ends – Subsequent tasks likely to be completed in future project phases

---

5. **Finalize design and plans:** In this step, the landscape/ecology consultant will develop a soil design, a plant list and planting plan, and a management guide, informed by the preferences of the project team and community members as well as their professional expertise. An important consideration at this step is to plan for how to manage any bordering invasive species which can colonize cleared sites. The [North American Invasive Species Management](#)

[Association - NAISMA](#) provides information on how to manage local invasives, and there is also a [Massachusetts Prohibited Plant List | Mass.gov](#). The landscape/ecology consultant will then develop a plant list and planting plan that can collectively withstand competitor species, environmental stresses, and disturbances.

6. **Develop budget and implementation plan:** Once the site is selected and the design phase is completed, the next step is to develop an initial budget and an implementation plan. The project team will lay out and scale the project, which allows for the development of an initial budget. Projects such as these can go through multiple cycles of project site preparation, development, and establishment. Discussions can be had about future phases and future costs, if necessary. The implementation plan should include the following:
  - a. Site preparation: Acquire any required permits and approvals, site access and control, establish erosion control, identify a water source if needed, remove invasive species to the extent practicable, remove litter, and get bulk materials delivered.
    - Pavement or structures will be removed, and they will need to be replaced with an extensive amount of soil. The project team should work with the consultant on how much is needed for the site and design.
    - A member of the project team can work with public works to acquire bulk materials and establish connections with possible donors and/or donations from other projects for the bulk materials.
  - b. Source materials: In addition to bulk materials like soil, gravel, and woodchips, specialty soils, amendments, plants, and seeds will also need to be sourced.
  - c. A timeline for advertising, acquiring donations, and volunteer outreach; these will provide resources and volunteers for the building and planting days.
  - d. A timeline for the necessary number of building and planting days to complete the new community green space.
  - e. A timeline for follow-up/maintenance events. Typically, nature-based solutions require establishment care events.
7. **Host the building and planting days:** Building and planting days are what bring the project to fruition. Best practice suggests these events should be at maximum half a day long and focus on a quarter acre. Partnerships with schools and community members are a great way to engage and educate the community and create a sense of ownership of the project. Public engagement best practices, such as providing stipends or other compensation, childcare, and interpretation may be needed to support participation by diverse stakeholders.
  - Train event leaders in advance to direct and support the community participants—ideally one trained leader per ten participants.
  - Start with a safety briefing and project purpose review.
  - Provide tools and equipment, first aid, and refreshments.
  - Announce follow up events and other ways to get involved with nature-based solutions projects.