CAPE COD COMMISSION

Barnstable County
**FY27 License Plate Grant Application Submission**

# Green Center Inc.

## CONTACT INFORMATION

*Organization Name:* Green Center Inc.
*Location:* 28 Common Way, East Falmouth, MA 02536
*Project Manager Name:* Earle Barnhart
*Project Manager Title:* President Green Center Inc.
*Project Manager Email:* thegreencenterinc@gmail.com

## PROJECT INFORMATION

*Name of Project:* Waste Not: A Better Way To Go  Source-Separation Sanitation: Innovative Wastewater, Housing and Economic Solutions for Cape Cod

*Brief Project Description:*
The Green Center will create a professionally produced educational video making Source-Separation Sanitation (SSS) understandable and accessible to Cape Cod residents, municipalities, housing advocates, educators and wastewater professionals. The video will be widely distributed through YouTube, public television, community forums, and complement the educational mobile ReSource trailer proposed by Cape's Wastewater Innovation Network (WIN). Drawing on research, demonstration projects and decades of documented experience, it will explain how SSS can reduce cost of wastewater treatment, nutrient water pollution, water and energy use, recover nutrients, produce local fertilizer, support food security and help remove wastewater-related barriers to affordable housing.

*How does the project advance one or more 2024 Cape Cod CEDS Key Actions?*
Alignment with the 2024 Cape Cod CEDS
The project directly supports multiple CEDS priorities and Key Actions:
• Key Actions 1–2 — Year-Round Housing: Wastewater requirements and infrastructure costs can be barriers to housing and ADUs. The project will explain how source separation can reduce water use, wastewater volume and nutrient loading at the source and can inform consideration of lower-resource and lower-cost sanitation approaches.

• Key Action 3 — Pilot Ideas: The project will document local research, demonstrations, technologies, performance, costs and maintenance information, giving municipalities, nonprofits, businesses, developers, plumbers, researchers and residents a practical starting point for future pilots.
• Key Action 4 — Civic Engagement: The project will translate complex wastewater information into a visual resource that residents, town meeting members, officials and community organizations can use to ask better questions and participate more effectively in long-term infrastructure and financial discussions.
• Key Action 5 — Students and Workforce: The project will identify skills and educational pathways associated with assessment, plumbing, installation, operation, maintenance, collection, monitoring, laboratory analysis, nutrient recovery and reuse.
• Key Action 6 — Growing Industries: SSS can create demand for fixtures and equipment, engineering, plumbing, maintenance, collection, monitoring, processing and nutrient-recovery services. Cape Cod imports more than 6 million pounds of fertilizer annually. The project will explain existing and newly developing nutrient recovery technologies, local urine-based fertilizer production and the process of combining human waste and food waste resources into agricultural amendments. SSS creates a new circular economy towards greater resilience, affordability, food and housing security.
• Key Action 7 — Water Quality and Wastewater Infrastructure: The project will explain how source separation can reduce wastewater nutrient loading and volume, water consumption, capture nutrients for beneficial agricultural reuse, and reduce the scale and energy demands of wastewater infrastructure. SSS will be presented as complementary to sewers, advanced onsite systems and other strategies where appropriate.
• Key Action 10 — Climate Resilience: The project will explain connections among reduced water use, wastewater nutrient loads, energy use, greenhouse-gas emissions, distributed infrastructure and resilience during flooding, extreme weather, sea-level rise, saltwater intrusion and power disruptions.

*What economic development needs/priorities will this project address?*
Cape Cod faces closely linked economic-development challenges involving water quality, wastewater infrastructure, housing affordability, climate resilience, and the availability of a stable year-round workforce. Wastewater costs and infrastructure requirements can directly affect the affordability and feasibility of existing homes, new housing, and accessory dwelling units (ADUs), limiting housing options for workers and families. At the same time, nutrient pollution threatens the ponds, groundwater, estuaries, and coastal waters that support Cape Cod's tourism, fishing, recreation, property values, and broader economy.

*What is the anticipated impact of this project on these economic development needs/priorities? How will this project support Cape Cod's economic resiliency?*

Cape Cod communities are making very large, costly, long-term infrastructure commitments. Regional estimates presented by Barnstable County in 2026 put the cost of full sewering across Cape Cod at approximately $6.2–$9.2 billion. The Cape Cod Commission's current Cape Cod and Islands Water Protection Fund project list reports approximately $863.5 million in 2026 wastewater and water-quality project costs, plus $56.3 million in qualifying pre-existing wastewater debt for Barnstable, Chatham, Falmouth and Provincetown. These investments make it especially important for communities to understand a broad range of sanitation options before committing to generations of capital, operating, and maintenance costs.

This project will demonstrate how Source-Separation Sanitation (SSS) could help Cape Cod reduce wastewater volume, nutrient loading, water pollution, environmental impacts, infrastructure demands, and associated costs at the source, while recovering nutrients for productive agricultural reuse. By providing accessible, professionally produced information about SSS technologies and their potential applications, the project will give communities, policymakers, homeowners, engineers, builders, and the development community a practical tool for evaluating additional sanitation options.

The economic-development impact extends beyond environmental protection. SSS could help reduce time and cost barriers to more affordable housing and ADUs, support greater housing and workforce stability, create opportunities for local businesses and entrepreneurs, and stimulate workforce development in emerging sanitation, engineering, construction, and resource-recovery fields.

This project is more than a video-production effort—it is a practical regional economic-development and education tool.  Interest in Source-Separation Sanitation is growing across Cape Cod, the Islands, and other Massachusetts communities and demonstrates the need for accessible information that can help translate emerging interest into informed evaluation and implementation. Falmouth is actively pursuing a urine-diversion (UD) pilot project, led by MASSTC.In Orleans, the Finance Committee and Wastewater Management Advisory Committee are actively discussing alternative wastewater technologies. A larger demonstration concept, estimated at approximately $750,000, is being developed for possible future consideration by Town Meeting. Wellfleet's September 2026 wastewater agenda included an "Alternative Technology Update" connected to the Orleans discussion. Interest is also growing among municipal officials and committee members in Harwich.

On Martha's Vineyard a UD demonstration is being developed in the Lagoon Pond watershed. The Island is also exploring how new development can accommodate urine diversion, including consideration of making a new school construction project "UD-ready."

Beyond the region, the Rich Earth Institute is in the early stages of developing a urine-recycling network in Franklin County MA, supported by a two-year planning grant from the Long Island Sound Futures Fund.

At the state level, the current House Mass WINS economic-development legislation includes $500,000 for Barnstable County's MASSTC to evaluate UD technologies for reducing nutrient pollution in nitrogen-sensitive areas of the Lower and Outer Cape.
Together, these developments demonstrate growing interest in alternative sanitation and the value of a reusable educational resource. The video will bring firsthand information to seniors, residents without reliable transportation, and others unable to travel to the Green Center. Firsthand exposure is key to understanding these technologies in a real residential setting. The video will make this knowledge accessible to a much broader audience.

*Are there any anticipated challenges to implementing the project within the required timeframe of the grant award?*
No significant barriers to completing the project within the required one-year period are anticipated. The project is appropriately scaled to the available timeframe, and Green Center already has the subject-matter expertise, field experience, demonstration sites, educational materials, research findings, photographs, videos and regional relationships needed to begin work immediately.
Green Center has also worked with the Cape Cod Commission on its 208 Plan and Technology Matrix. This video will broaden the scope and accessibility of this regional technology matrix.
The project does not require development of a new technology or construction of a new demonstration facility. Instead, it will organize, document and professionally present existing knowledge and real-world experience with Source-Separation Sanitation. Green Center's operating demonstration systems, research projects, field data, public tours and established network of practitioners and organizations provide a strong foundation for interviews, filming and technical content.
The principal project-management challenge will be coordinating interviews, filming, technical review and professional production within the project period. This risk will be minimized by establishing the production schedule early, identifying primary and backup interviewees and filming dates, assembling existing materials in advance, and conducting technical review in stages rather than waiting until the end of production.

*Would the funding be used to support a grant program? Yes / No*
No

*Which municipality or municipalities are supportive of this project? (Optional)*
Town of Falmouth. MASSTC is actively conducting urine-diversion pilot project with the Town of Falmouth and MassDEP  Interest in alternative wastewater technologies is also growing in other Cape Cod and Islands communities. In Orleans, the Finance Committee and Wastewater Management Advisory Committee held a joint meeting on September 10, 2026, and have begun actively discussing alternative wastewater technologies. The Town's public agenda records confirm

the joint meeting and continuing wastewater committee discussions in September. A larger Orleans demonstration concept, estimated at approximately $750,000, is being developed for possible future consideration by Town Meeting. Wellfleet's September 2026 wastewater agenda included an "Alternative Technology Update" connected to the August 27 Orleans Finance Committee discussion, indicating that interest in these approaches is extending beyond a single municipality. There is also growing interest among municipal officials and committee members in Harwich. At the state level, the current House Mass WINS economic-development legislation includes $500,000 for Barnstable County's Massachusetts Alternative Septic System Technology Center to evaluate the feasibility of urine-diverting eco-toilet systems for reducing nutrient pollution in nitrogen-sensitive areas of the Lower and Outer Cape. On Martha's Vineyard, a urine-diversion demonstration project is being developed in the Lagoon Pond watershed. The project, led by the Lagoon Pond Association in partnership with the Martha's Vineyard Commission and other regional and state partners, plans to install and monitor up to 50 residential urine-diversion systems. The Tisbury and Oak Bluffs Boards of Health, Tisbury Selectboard, and Sewer Advisory Committee have formally approved the proposal, and the Martha's Vineyard Commission has endorsed it. Martha's Vineyard is also exploring how new development can be designed to accommodate urine diversion, including consideration of making a new school construction project "UD-ready." This illustrates an important shift from treating alternative sanitation solely as a retrofit or wastewater-treatment issue toward incorporating source-separation infrastructure into the design of new buildings. Interest is expanding beyond the Cape and Islands as well. The Rich Earth Institute (Brattleboro, Vermont) is in the early stages of developing a urine-recycling network in Franklin County, Massachusetts, supported by a two-year planning grant from the Long Island Sound Futures Fund. The initiative is intended to help establish the infrastructure and partnerships needed to expand community-scale urine recycling in Western Massachusetts. Together, these developments demonstrate increasing regional interest in evaluating alternative sanitation technologies and reinforce the value of creating a reusable educational resource that can support informed municipal decision-making across Cape Cod, the Islands and beyond.

## SCOPE OF WORK AND TIMELINE

### Task 1

*Description:* Production Development and Technical Preparation
Organize existing Green Center content, research, case studies, photographs, and technical materials into the final narrative, production outline, interview plan, and visual plan.
*Deliverable:* Final video narrative, production outline, interview/visual plan, and organized technical source materials.
*Estimated Completion Date:* February 28, 2027

### Task 2

*Description:* Professional Video Production
Film interviews, field footage and demonstrations and produce graphics, photographs, data visualization, and narration addressing source separation, water conservation, nutrient capture and reuse, urine-derived fertilizer, food security and domestic fertilizer resilience, housing, infrastructure, workforce development, and climate resilience.
*Deliverable:* Professionally produced educational video ready for technical review and final editing.
*Estimated Completion Date:* April 30, 2027

### Task 3

*Description:* Final Production + Short-Form Educational Materials
Complete technical and editorial review and final editing. Produce five short excerpts/modules plus a concise presentation, handout, or digital resource guide for use with different audiences and settings.
*Deliverable:* Final educational video, five short-form modules, and companion presentation/handout or digital resource guide, ready for public distribution.
*Estimated Completion Date:* May 31, 2027

### Task 4

*Description:* High-Season Regional Distribution + Public Engagement
Launch the completed materials for summer distribution through The Green Center, municipalities, regional partners, public presentations, tours, educational programs, and community events. WIN will expand distribution through its network, VIPee Tours, and proposed ReSource Room, including outdoor screenings projected onto the back of the mobile classroom at neighborhoods, in backyards, and at community events.
*Deliverable:* Summer and fall regional distribution and screening campaign reaching municipal, community, educational, housing, wastewater, professional, and general-public audiences across Cape Cod.
*Estimated Completion Date:* October 31, 2027

### Task 5

*Description:* Evaluation + Continued Distribution: Document distribution, audiences reached, screenings and presentations, online engagement, partner use, public response, and follow-up opportunities while continuing to make the materials available through regional partners and digital channels.
*Deliverable:* Final evaluation and grant report documenting reach, engagement, partner participation, lessons learned, and opportunities for continued use and distribution beyond the

grant period.
*Estimated Completion Date:* End of grant contract period

## PROJECT PARTNERS

### Project Partner 1:

*Name:* Lily Ericsson
*Title:* Multidisciplinary artist, filmmaker and animator
*Email:* ericssonlily@gmail.com
*Role/Description:* Production of long-form YouTube video and 5 short video segments

### Project Partner 2:

*Name:* Talitha Abramsen
*Title:* WIN founder/convener, Mobile ReSource Classroom Developer, Former program manager of the lower Cape ADU resource center
*Email:* Talithabramsen@gmail.com
*Role/Description:* Consultant for regional outreach and distribution

### Project Partner 3:

*Name:* Megan Amsler
*Title:* Executive Director of Self-Reliance Corp.
*Email:* megan@reliance.org
*Role/Description:* Consultant on energy solutions and workforce development

# FY27 LICENSE PLATE GRANT APPLICATION BUDGET

Please upload this sheet as a PDF as part of your application.

Please fill in all budget categories relevant for your proposed project, including a brief description of th
total amount requested should equal the total amount noted in the scope of work. All project expens
reimbursement basis.

| Category | Amount Requested | Match Amount (optional) | Total Project Cost |
|---|---|---|---|
| Personnel/Labor from Staffing Plan) | $7,500 | $7,500 | $15,000 |
| Fringe Benefits (from Staffing Plan) | | | |
| Travel | $500 | 0 | $500 |
| Equipment | 0 | 0 | 0 |
| Supplies | $200 | 0 | 200 |
| Contractual/Consulting | $16,750 | $3,500 | $20,250 |
| Small Grants Program | 0 | 0 | 0 |
| Other | 0 | 0 | 0 |
| Total Direct Cost | $24,950 | $11,000 | $35,950 |
| Indirect Costs* | 0 | 0 | 0 |
| Total | $24,950 | $11,000 | $35,950 |

*Maximum of 15% of project direct cost unless the project applicant has a Negotiated Indirect Cost Rat

e funds requested. The
ses are provided on a

| Budget Narrative |
| --- |
| Content development, coordination, interviews, research, outreach |
| |
| to interviews, sites |
| |
| office supplies |
| video production, editing, integration, graphics, outreach, research |
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:e Agreement.

# FY27 LICENSE PLATE GRANT APPLICATION STAFFING PLAN

Please upload this sheet as a PDF as part of your application.

For each individual participating in this project, please share their name, title, and associated hourly rate, number of hours. In addition, please list the tasks that each staff member/volunteer will participate in. The staffing plan should be uploaded at the end of the application.

| Staff Name and Title | Hourly Rate | Number of Hours | Total Project Cost | Amount Requested | Match Amount |
|---|---|---|---|---|---|
| | | | | | |
| Earle Barnhart | $125 | 60 | $7,500 | $3,750 | $3,750 |
| Hilda Maingay | $125 | 60 | $7,500 | $3,750 | $3,750 |
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| | | | | | |
| Total Personnel | | 120 | $15,000 | $7,500 | $7,500 |
| Fringe (enter fringe rate as percent): | | 0 | 0 | 0 | 0 |
| TOTAL: | | 120 | $15,000 | $7,500 | $7,500 |

| Staff Name and Title | Tasks/Responsibilities |
|---|---|
| Earle Barnhart | Project Co-manager, technical research, content developer, script developer, final reporting |
| Hilda Maingay | Project Co-manager, script developer, coordinator, editorial review, presentations |
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FROM THE DESK OF

# C. Lily Ericsson

September 24, 2026

Cape Cod License Plate Grant Fund
Cape Cod Commission
P.O. Box 226
3225 Main St.
Barnstable, MA 02630

Dear Cape Cod Commission,

I am writing in support of "**Waste Not: A Better Way to Go – Source-Separation Sanitation: Innovative Wastewater, Housing, and Economic Solutions for Cape Cod.**" I will be working with the Green Center as a video producer, collaborating on script development, editing, and design for a full-length educational video as well as several short-form videos introducing and explaining Source-Separation Sanitation.

I am a multidisciplinary artist, filmmaker, and animator dedicated to bringing social movements and sustainable practices to life through visual storytelling. For the past decade, my documentary and animation work has ranged from helping teens preserve Holocaust survivor testimonies through *The Righteous Conversations Project*, to visualizing feminist art movements with director Cheri Gaulke, to working as a designer for the HaikuBox acoustic bird-monitoring system.

I have also collaborated with the Green Center in the past, producing a series of informational films about the sustainable, practical, and affordable technologies they have developed over many decades of dedication to creating a more environmentally and socially fulfilling future.

I am extremely excited to be working with the Green Center again. It is a joy to collaborate with such visionary and experienced researchers, whose work is grounded not only in ambitious ideas but also in practical application and rigorous testing. Their commitment to developing solutions that can be thoughtfully evaluated, effectively communicated, and ultimately put into wider practice is deeply inspiring.

I am proud to contribute my skills in visual storytelling and communication to help share this important work with a broader audience.

Sincerely yours,

C. Lily Ericsson

ERICSSONLILY@GMAIL.COM
(941) 685-1326

SELF-RELIANCE

The Green Center
237 Hatchville Road
Hatchville, MA 02536

September 22, 2026

Dear Hilda and Earle,

We are pleased to support The Green Center's grant application to produce an educational video on Source-Separation Sanitation (SSS).

Self-Reliance is a nonprofit 501(c)(3) organization founded in 1980 by the Housing Assistance Corporation, New Alchemy Institute, and the Wampanoag Tribe. For more than four decades, we have promoted energy conservation, efficiency and renewable energy technologies throughout the region. Our work recognizes that energy—in the form of heat, electricity, fuel, sunlight, and food—touches every aspect of our daily lives.

Self-Reliance advocates for both innovative and common sense energy solutions that strengthen local communities, conserve resources, and promote environmental stewardship. We recognize the urgent need for effective, affordable wastewater solutions on Cape Cod, where nutrient pollution threatens our waters, conventional sewage treatment plants require substantial amounts of energy, and costly wastewater infrastructure presents significant challenges for municipalities, homeowners, and the much needed implementation of affordable housing.

Source-Separation Sanitation rethinks wastewater management by treating urine as a resource. SSS has lower energy and water demands than conventional sewage treatment and gives the chance to capture valuable nutrients to produce locally useful fertilizer. It also creates opportunities for local businesses - new or expanding - to specialize in the installation and maintenance of new systems, along with the collection and processing of recovered resources, which generates jobs and strengthens the local economy.

Source-Separation Sanitation has the potential to expand affordable housing opportunities on Cape Cod. The high cost of installing innovative/alternative (I/A) septic systems can be a significant financial barrier for homeowners seeking to build accessory dwelling units (ADUs). Source-separation technologies could provide a more affordable alternative, reducing wastewater infrastructure costs and making additional housing financially feasible and lighter on the fragile natural resources. As Cape Cod continues to face a critical housing shortage, smart solutions that protect water quality while lowering construction costs deserve serious consideration.

One of the greatest barriers to SSS is a lack of accessible, reliable information. The Green Center's proposed video, building on their current in-person tours, will help bridge that gap by translating decades of research and practical experience into an engaging educational resource that is widely available. Distribution through local community television stations, YouTube, and Cape Cod's Wastewater

Innovation Network's proposed mobile ReSource trailer will bring this important information to a broad audience, including residents, municipal officials, housing advocates, educators, and wastewater professionals.

The project's connection with energy conservation, affordable housing, clean water, food security, and local economic development closely aligns with Self-Reliance's mission. These issues are deeply interconnected, and informed public engagement is essential to developing environmentally and economically sustainable solutions.

Self-Reliance enthusiastically supports The Green Center's proposal. We believe this educational initiative will broaden public understanding of Source-Separation Sanitation, encourage informed discussion, and help Cape Cod communities explore practical, affordable approaches to protecting our environment, reducing energy consumption, creating economic opportunities, and expanding housing options.

Please feel free to contact me with any questions.

Sincerely,



Megan Amsler
Executive Director

# Letter of Support

FY27 Barnstable County License Plate Grant Program Application

*The Green Center, Inc. | Waste Not: A Better Way to Go*

Dear Grant Review Committee:

I am pleased to support The Green Center's application to create a professional educational video and companion materials about source-separating sanitation.

I am founder and convener of WIN: Wastewater Innovation Network, a regional, cross-sector network launched in late 2025 connecting municipal and state officials, scientists, housing professionals, builders, environmental advocates, sanitation innovators, civic leaders, and residents around wastewater, housing, water quality, affordability, climate resilience, and nutrient recovery.

For the past three years, I have collaborated closely with Hilda Maingay and Earle Barnhart of The Green Center to develop and lead the VIPee Tours, bringing municipal and state leaders, housing professionals, journalists, environmental advocates, and other stakeholders into direct contact with source-separating sanitation. Since their inception, these immersive tours have centered The Green Center's decades of knowledge and demonstration, often paired with research and testing at MASSTC. More than 125 leaders and advocates have now participated, and community and municipal leaders are increasingly asking for this education to be brought directly to their communities. This collaboration helped inform the creation of WIN and remains foundational to our work.

That demand also exposes a geographic barrier. Today, one of the best ways to understand these technologies is to travel to Falmouth to experience The Green Center and MASSTC firsthand. Outer Cape participants may travel more than an hour each way, creating an even greater barrier for seniors, people without reliable transportation, students, busy municipal volunteers, and others unable to participate in a half- or full-day tour. The Green Center's video can bring that classroom to them.

WIN will actively help distribute and use the finished video through its growing regional network, municipal and community presentations, housing and wastewater discussions, neighborhood events, and educational programming. If WIN's complementary ReSource Room mobile wastewater innovation classroom is funded, the video can travel with it, including outdoor screenings projected onto the back of the trailer while participants explore source-separating fixtures firsthand.

Limited public familiarity is frequently cited as a barrier to broader consideration of source-separating sanitation. Yet people cannot ask for an option they do not know exists. Accessible, credible education gives residents and decision-makers the opportunity to understand these systems and participate meaningfully in decisions about Cape Cod's wastewater future.

Hilda and Earle bring decades of research, experimentation, demonstration, and lived experience to this work. Turning that knowledge into a professional, reusable resource will allow it to travel far beyond The Green Center and serve Cape communities for years to come. WIN enthusiastically supports this investment and looks forward to helping put it to work throughout the region.

Sincerely,

Talitha Abramsen

Founder & Convener, WIN: Wastewater Innovation Network

Independent Housing & Systems Consultant