Growing Together:

An Edible Trail for Wellness, Equity, and Resilience in Lompoc

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Abstract

Lompoc, California, faces intersecting challenges of food insecurity, underutilized green spaces, and limited walkable infrastructure—particularly in low-income neighborhoods. Despite a rich agricultural history and a landscape dotted with parks and bike paths, much of the city's built environment remains fragmented, car-dependent, and inequitable. This proposal outlines a community-driven plan to develop an edible and ecological trail system that transforms vacant or underused public land into a connected network of green corridors. The trail will feature fruit and nut trees, native plants, shaded walking paths, and educational signage, creating multifunctional spaces that promote health, sustainability, and social cohesion.

Rooted in principles of equity, ecology, and community ownership, the project aims to enhance public health, restore habitat, and build resilience through participatory design and local stewardship. Initial implementation will focus on a segment of the Lompoc Riverbend Multi-Use Trail, activating it as a pilot site through collaborative planning, community planting events, and seasonal programming. The trail aligns with Lompoc's General Plan, Climate Action Plan, and Environmental Justice goals, and is scalable over time based on community input and funding availability. By reimagining public space as a site of nourishment, connection, and ecological care, this project offers a replicable model for resilient, people-centered development in small cities.

I. Background

Lompoc, California, is a city of approximately 44,000 residents situated in northern Santa Barbara County. Known historically for its rich agricultural roots, Lompoc remains a center for diverse row crops and flower cultivation, which continues to shape its cultural and economic landscape (City of Lompoc, 2024). The local economy is uniquely influenced by two major federal institutions: Vandenberg Space Force Base and the Lompoc Federal Correctional Complex. While these entities provide significant employment opportunities, they lie outside the city limits, contributing limited local tax revenue. This arrangement has resulted in a working-class, semi-rural commuter town identity where municipal resources for infrastructure and community investment have often been insufficient to meet residents' needs (City of Lompoc, 2024).

The built environment in Lompoc reflects a history of fragmented, car-dependent development. Neighborhoods—particularly those with lower-income populations—suffer from a lack of safe pedestrian infrastructure, such as sidewalks and bike lanes, as well as disconnected and underutilized parks and green spaces. Many residents perceive these outdoor areas as unsafe or inaccessible, which limits opportunities for physical activity, social interaction, and community cohesion. These spatial and infrastructural inequities exacerbate public health issues prevalent in the area, including food insecurity, obesity, and diabetes, which disproportionately affect vulnerable populations (Santa Barbara County Public Health Department, 2022).

According to the USDA Food Access Research Atlas (2023), multiple zones within Lompoc qualify as low-income, low-access food deserts, where residents live over half a mile from supermarkets or stores offering healthy food options (USDA ERS, 2023). This lack of access contributes directly to poor nutrition and health disparities within the community. Concurrently, Lompoc hosts numerous vacant or underutilized parcels, especially near schools, parks, and bike routes, which represent untapped opportunities for strategic reinvestment and community-driven development.

Community-based green infrastructure projects—such as community gardens, edible landscapes, and integrated ecological trails—can provide multiple co-benefits. These projects improve food security, encourage healthier lifestyles, foster social connections, and enhance

urban ecology and biodiversity (Armstrong, 2000; Edwards, Manderscheid, & Parham, 2023; Litt et al., 2011). By creating accessible, safe, and attractive outdoor spaces, such interventions also promote physical activity and mental well-being, which are critical components of community resilience.

This proposal advocates for the development of an edible and ecological trail system integrated into Lompoc's existing public infrastructure. Such a project would align with the city's 2030 General Plan, Climate Action Plan, and Environmental Justice Element, all of which emphasize equitable investment, walkability, sustainable land use, and public health (City of Lompoc, 2020; 2024). By prioritizing equity, community ownership, ecological function, and diversity, the edible trail system aims to address entrenched spatial inequities while building long-term wellness and resilience in Lompoc.

II. Proposed Solution

To address the pressing challenges of limited food access, fragmented green infrastructure, and insufficient walkability in Lompoc, this proposal recommends the development of a community-driven edible and ecological trail system. This trail will transform underutilized public spaces—such as city-owned vacant lots, parks, and bike paths—into a connected network of green corridors that provide fresh food, promote environmental health, and foster social cohesion.

The trail will feature fruit and nut trees, native and pollinator-friendly plants, shaded pedestrian paths, and educational elements such as interpretive signage and produce-sharing kiosks. Together, these components create a multifunctional public space that integrates ecological restoration with food production and community engagement.

Community Engagement and Co-Design

Central to the project's success is meaningful, sustained community involvement. Early and ongoing engagement with residents, neighborhood organizations, local schools, and artists will ensure the trail reflects local needs, histories, and priorities. Participatory design workshops will guide decisions about plant species, trail routing, cultural elements, and stewardship responsibilities. This approach follows evidence from urban agroforestry projects showing that

community-led processes increase long-term stewardship and social benefits (Edwards, Manderscheid, & Parham, 2023).

Incorporating local voices from the beginning not only fosters trust but also ensures that the project is culturally relevant and responsive. Co-design methods may include art installations, bilingual signage, and design features that reflect Indigenous, Latinx, and other community narratives, reinforcing a shared sense of place.

Enhancing Resilience Through Equity, Ecology, and Ownership

This project explicitly advances several key resilience criteria, including equity, ecology, and community ownership:

- **Equity:** Lompoc's low-income neighborhoods face significant barriers to accessing fresh, nutritious food and safe green spaces (USDA ERS, 2023; Santa Barbara County Public Health Department, 2022). By focusing implementation in these underserved areas, the trail supports environmental justice goals while improving access to healthy food and inviting outdoor environments. Equitable access to green space is directly associated with improved physical and mental health outcomes, especially in low-income communities (American Planning Association, 2014).
- **Ecology:** The trail's design prioritizes drought-tolerant native plants to support local biodiversity and reduce irrigation needs—an essential strategy in Lompoc's semi-arid environment. Pollinator gardens and urban agroforestry elements will provide habitat connectivity, reduce urban heat island effects, and improve stormwater retention. These co-benefits help the city adapt to climate change while enhancing the ecological function of public space (Lovell & Taylor, 2020).
- **Ownership:** Long-term resilience requires that the community feels a sense of ownership over the trail. To this end, the project will include public art projects, planting and maintenance days, and seasonal events like harvest festivals. Partnerships with schools and youth organizations will invite participation across generations and build social capital over time (Plassnig et al., 2023). Involvement in creation and care will promote pride, reduce vandalism, and create lasting connections to place.

Promoting Self-Reliance and Sustainability

The edible trail system is designed to promote self-reliance at both the household and community levels. By increasing access to free, locally grown food, residents reduce their dependence on distant or unaffordable grocery outlets—an urgent need in the food desert zones of Lompoc (USDA ERS, 2023).

The trail system emphasizes scalability and affordability. It will begin with pilot sites—likely near schools, existing parks, or bike paths—selected in collaboration with the community. These sites will serve as both functional green spaces and demonstration hubs for education and community organizing. As interest and funding grow, additional nodes and connections can be added over time. This modular, phased approach aligns with best practices for adaptive governance in urban food systems (Edwards et al., 2023), allowing flexibility in response to feedback, capacity, and climate.

To reduce costs and foster engagement, volunteer labor and partnerships with local institutions—such as schools, gardening clubs, and conservation nonprofits—will be central. The project can also serve as a platform for workforce development, offering workshops on permaculture, drought-smart landscaping, and community food forestry.

Related Projects and Models

The edible trail proposed for Lompoc builds on successful models that demonstrate how community-led green infrastructure can improve food access, public health, and ecological resilience:

- **Beacon Food Forest (Seattle, WA):** This large-scale urban food forest incorporates fruit and nut trees, edible perennials, gathering spaces, and educational programming. While Lompoc's context is more semi-rural and spatially dispersed, Beacon's model of collective stewardship, volunteer engagement, and ecological design informs this project's vision. It shows how food production can be integrated into shared public space to promote community ownership and environmental education (Beacon Food Forest, n.d.).
- **Edible City Solutions Framework:** Research by Plassnig et al. (2023) outlines how equity-focused planning, adaptive governance, and inclusive co-design are critical to the

success of urban food initiatives. These insights inspire the trail's participatory approach, which emphasizes localized decision-making, modular growth, and responsiveness to community feedback.

- **Incredible Edible Todmorden (UK):** Although in a rural English town, this initiative turned everyday public spaces into open-access edible gardens. Its "planting everywhere" approach and use of informal education through signage and storytelling inspires the cultural and educational components of Lompoc's trail. It demonstrates how food-growing spaces can become platforms for civic pride and everyday engagement.

These models reinforce that small-scale, community-driven interventions can transform how residents interact with public space, food systems, and one another. The Lompoc trail draws inspiration from these projects not by replicating them outright, but by adapting their most resilient and inclusive features to local conditions and priorities.

Policy Alignment and Funding Opportunities

The edible trail system aligns with Lompoc's policy goals as outlined in its 2030 General Plan, Climate Action Plan, and Environmental Justice Element—all of which stress the importance of walkability, green infrastructure, and equitable public investment (City of Lompoc, 2020; 2024).

It also fits within broader state and federal funding priorities, particularly in the context of urban forestry, climate adaptation, and food justice. Potential funding sources include:

- CalFire Urban and Community Forestry Grants
- California Strategic Growth Council's Transformative Climate Communities Program
- EPA Green Infrastructure Funding
- Public-private partnerships with local nonprofits or health-focused foundations

By leveraging these opportunities and phasing construction in line with available resources, the trail can be implemented affordably and expanded sustainably. Importantly, the project provides a replicable framework that other small cities with similar challenges can adopt.

*** Subject to rapid change in today's current political climate.*

III. Project Activity and Timeline

This project will be implemented over a 24-month period with a phased, community-driven approach. The initial focus will be on enhancing a segment of the Lompoc Riverbend Multi-Use Trail, a paved corridor along the Santa Ynez River. This trail currently connects parks, schools, and neighborhoods but remains underutilized. Its proximity to underserved communities and existing bike/pedestrian access makes it an ideal launch point for the edible trail.

Phase 1: Planning and Community Engagement (Months 1–8)

- **Task 1: Community Introduction and Early Feedback**
    - Present the edible trail concept at local community events and meetings, including:
        - City council meetings
        - Neighborhood groups
        - Local schools
        - Old Town Fridays
        - Food Truck Fridays
        - Swap meets
        - Farmers markets
    - Gather broad input, concerns, ideas, and expressions of interest from diverse community members, with special outreach to historically underserved neighborhoods.
    - Use this phase to build awareness, trust, and buy-in, while exploring community needs and priorities around food access, green spaces, and trail safety.
- **Task 2: Formation of Advisory Committee and Core Partnerships**
    - Invite interested community members, local organizations, and stakeholders to form an advisory committee.
    - Establish working relationships with nonprofits, city departments, schools, and youth groups, and other partners.

- This committee will provide ongoing guidance and help ensure the project stays community-driven.

- **Task 3: Collaborative Site Identification and Selection**
  - Co-identify the pilot trail segment using community feedback along with spatial data on food deserts, shade, and access.
  - Prioritize sites with strong community support and accessibility.
  - Conduct design workshops and surveys to gather detailed input on plant species, trail features, safety, and accessibility, with special focus on underserved neighborhoods..
- **Task 4: Fundraising and Resource Acquisition**
  - Pursue grants and in-kind contributions informed by advisory committee recommendations and community needs.
  - Identify and pursue funding from sources such as:
    - Santa Barbara Foundation
    - CalFire Urban and Community Forestry Grants
    - EPA's Environmental Justice Collaborative Problem-Solving Program.
  - Pursue in-kind support such as compost, tools, plant donations, and volunteer labor.

Phase 2: Installation and Activation (Months 9–16)

- **Task 5: Final Design and Site Preparation**
  - Refine trail design based on community feedback, including:
    - Shaded seating
    - Drought-tolerant edible and native plants
    - Interpretive (multilingual) signage
    - Produce-sharing kiosks.
    - Lending libraries
  - Prepare the site by clearing debris, enriching soil, and installing irrigation (if needed).

- **Task 6: Community Planting and Trail Build-Out**
    - Organize volunteer planting days with schools, neighborhood groups, and local organizations.
    - Install wayfinding signs, educational panels, and trail amenities.
    - Provide educational materials on plant care and responsible harvesting to trail users.
- **Task 7: Community Programming Launch**
    - Host engaging seasonal events:
        - Planting days
        - Harvest festivals
        - Guided nature walks
    - Offer intergenerational workshops focused on:
        - Gardening techniques
        - Nutrition education
        - Traditional ecological knowledge
    - Create opportunities for community involvement by:
        - Showcasing local artists, educators, and organizations
        - Hosting workshops and demonstrations
        - Encouraging hands-on activities to foster community pride and connection

Phase 3: Stewardship, Evaluation, and Expansion Planning (Months 17–24)

- **Task 8: Ongoing Maintenance and Volunteer Stewardship**
    - Form neighborhood stewardship teams responsible for routine care, issue reporting, and event coordination.
    - Collaborate with city maintenance crews and partner nonprofits for long-term support.
- **Task 9: Monitoring and Feedback Loops**

- Conduct surveys, site audits, and user interviews to evaluate:
    - Walkability
    - Perceived safety
    - Usage rates
    - Community satisfaction
- Use findings to make adjustments to design, maintenance, or programming.

- **Task 10: Expansion and Policy Integration**
    - Identify additional bike path segments or city-owned parcels for future trail extensions based on data and community feedback.
    - Develop proposals to formally integrate the edible trail into the City of Lompoc's General Plan and Climate Action framework.
    - Begin pursuing sustained funding for expansion phases
        - Work with city planners to integrate the edible trail into Lompoc's General Plan and Parks Master Plan for long-term funding and support.

IV. Stakeholders

The success of Lompoc's Edible & Ecological Trail will rely on inclusive collaboration across public agencies, educational institutions, nonprofits, and local communities. The following stakeholders represent key partners who can inform, support, and sustain the project at every phase:

<u>Residents and Neighborhood Groups</u>

Engaging residents who live adjacent to or frequently use the Lompoc bike path and river trails is crucial. These neighbors will provide vital insights on safety, accessibility, and trail features that reflect their daily experiences. This includes:

- Homeowners and renters in neighborhoods bordering the proposed trail segments, such as Old Town, Mission Hills, and Riverbend.
- Residents who regularly use the bike path or river trails for commuting, recreation, or exercise.
- Families with children attending nearby schools or involved in local youth programs.
- Community members living close to the trail who may benefit from improved food access and green spaces.

City & County Government

- **City of Lompoc Planning Division & Parks & Recreation Department**
  Responsible for land use approvals, permitting, integration of the trail with city infrastructure, and ongoing maintenance planning.
- **Public Works Department**
  Provides infrastructure support including trail preparation, signage installation, irrigation systems, and upkeep.
- **Lompoc Beautification & Appearance Commission**
  Leads volunteer efforts such as community cleanups, planting days, and public art coordination along the trail corridor.
- **Lompoc Police Department / Community Services Officers**
  Supports trail safety initiatives, community policing, and designing spaces that discourage vandalism or unsafe behavior.

- **Santa Barbara County Public Health Department**

  Ensures alignment of trail development with public health goals, including improving food access and community wellness.
- **Santa Barbara County Resource Conservation District (RCD)**

  Provides ecological guidance, expertise in native plants, and technical support for sustainable trail design.
- **Santa Barbara County Planning & Development Department**

  Engaged if trail segments extend into unincorporated areas or along county-managed roads.

State & Regional Partners

- **California Coastal Commission (Central Coast District)**

  May be consulted if trails intersect sensitive coastal zones or floodplain areas.
- **California State Coastal Conservancy**

  Possible funder or technical resource for green infrastructure and access projects.

Educational Institutions

- **Lompoc Unified School District (LUSD)**

  Schools near the trail may host student-led gardens, field trips, and learning projects connected to science, nutrition, and environmental studies.
- **Allan Hancock College**

  Supports research, workforce development, and service learning opportunities focused on urban ecology, public health, and community engagement.

Health & Equity Organizations

- **Transitions-Mental Health Association (TMHA)**

  Offers mental wellness programming such as therapeutic gardening and mindfulness walks.

- **Foodbank of Santa Barbara County**

  Supports fresh produce distribution and cooking workshops to enhance food equity.

- **Independent Living Resource Center and Tri-Counties Regional Center**

  Provide expertise to ensure trail accessibility and inclusive design for users with disabilities.

Environmental & Horticultural Allies

- **UC Master Gardeners of Santa Barbara County**

  Provide workshops, planting support, and maintenance advice.

- **California Native Plant Society – Channel Islands Chapter**

  Advises on native plant selection and habitat restoration.

- **Local Native Plant Nurseries**

  May offer in-kind donations, technical support, and regionally adapted plants.

Civic & Volunteer Groups

- **Lompoc Museum & Lompoc Library System**

  Provide historical and cultural context for signage and community programming.

- **Faith-Based Organizations** (e.g., Lompoc Ministerial Association, Rotary, Kiwanis, Lions) – valuable for outreach, volunteer recruitment, and fundraising.

- **Local Artists & Muralists**

  Can co-create trail art that reflects Lompoc's identity.

- **Cultural Groups**

  Could partner for culturally relevant programming.

Economic, Business, & Tourism Partners

- **Lompoc Valley Chamber of Commerce**

  Engages local businesses for produce kiosks and community event partnerships.
- **Explore Lompoc (Tourism Business Improvement District)**
- Promotes the trail as an eco-tourism destination and supports related events.
- **Local Farmers and Artisans**

  Collaborate on workshops, markets, and seasonal festivals along the trail.

Youth, Community Groups & Events

- **Neighborhood Associations and Resident Leaders**

  Play a central role in co-design, decision-making, and stewardship.
- **Boys & Girls Club of Lompoc Valley**

  Supports youth programming tied to gardening and environmental education
- **Santa Barbara County Youth Corps**

  Provides volunteer labor and stewardship training.
- **Community Events**

  Serve as outreach platforms to raise awareness, gather feedback, and promote community engagement.

Regional Climate & Environmental Groups

- **Community Environmental Council (CEC)**

  Active in climate resilience and sustainability efforts across the Central Coast, including Lompoc.
- **Santa Barbara County Regional Climate Collaborative / Guadalupe–Lompoc Initiative**

  Supports community-led climate planning and food access programs in the region.

Potential Challenges and Next Steps

While the edible and ecological trail system presents a high-impact opportunity, several potential challenges must be anticipated and addressed to ensure long-term success.

- **Maintenance and Stewardship**

  A common barrier for community green infrastructure is long-term upkeep. Without clear responsibilities, edible and native plantings may fall into neglect.

  Solution: Establish formal partnerships with local schools, community-based organizations, and neighborhood groups. Create rotating maintenance schedules, offer service-learning credits, and host training workshops to build local capacity.
- **Vandalism and Misuse**

  Public-facing installations—especially in underserved areas—may be vulnerable to damage or misuse.

  Solution: Co-design trail elements with local youth and residents to foster ownership and pride. Use durable materials and low-maintenance species. Engage local artists to develop murals and signage that reflect neighborhood identity.

- **Funding Limitations**

  Even small-scale green infrastructure requires initial investment for design, installation, and community programming.

  Solution: Combine local, state, and private funding sources. Pursue grants from CalFire, the Santa Barbara Foundation, and USDA, and encourage in-kind donations and volunteer labor.

- **Permitting and Bureaucratic Delays**

  Coordinating with multiple city departments and property owners may slow progress.

  Solution: Engage city officials early through a stakeholder working group. Emphasize alignment with existing plans like Lompoc's General Plan and Climate Action Plan to streamline approvals.

- **Water Access and Irrigation**

  Some segments of the trail may lack irrigation infrastructure, especially during plant establishment periods.

  Solution: Use drought-tolerant species and explore creative options such as gravity-fed drip systems, rainwater collection, and shared water access agreements. Partner with city staff, schools, or utility providers to support sustainable watering strategies.

Next Steps

1. **Start with the Community**

   Attend local events (e.g., Old Town Fridays, school open houses, farmers markets) to introduce the idea and listen. Focus outreach on neighborhoods near the Riverbend Trail to understand their needs, concerns, and ideas.

2. **Share with City Departments and Commissions**

   Present the draft concept to the Planning Commission and Parks & Recreation

Commission. Request feedback on site feasibility, permitting, and integration with existing plans.

3. **Form a Local Steering Committee**

   Recruit a small team of residents, educators, and local orgs to help refine the plan, guide outreach, and identify shared goals.

4. **Identify a Pilot Segment**

   Use input and basic spatial data (e.g., tree cover, walkability, food access) to choose a manageable stretch of trail for a first-phase activation.

5. **Secure Seed Funding**

   Begin applying for relevant grants and building local partnerships for materials, signage, and volunteer help.

This project is not only feasible but highly scalable—with the right groundwork, it has the potential to become a signature community resource rooted in equity, ecology, and everyday care

V. Works Cited

American Planning Association. (2014). *Planning for equity policy guide*. https://www.planning.org/publications/document/9148262/

Beacon Food Forest. (n.d.). *About the project*. https://beaconfoodforest.org

California Department of Forestry and Fire Protection (CalFire). (n.d.). *Urban and community forestry grants*. https://www.fire.ca.gov/grants/

City of Lompoc. (2014). *2030 general plan update*. https://www.cityoflompoc.com/government/community-development/general-plan

City of Lompoc. (2020). *Climate action plan*. https://www.cityoflompoc.com/home/showpublisheddocument/31468/637728848763030000

City of Lompoc. (2024). *2040 general plan – environmental justice element* (draft).

Edwards, K., Manderscheid, K., & Parham, T. (2023). Terms of engagement: Mobilising citizens in edible nature-based solutions. *Journal of Urban Ecology*, 9(2), 45–60.

Lovell, S. T., & Taylor, J. R. (2020). Designing multifunctional urban agroforestry with people in mind. *Landscape and Urban Planning*, 197, 103766. https://doi.org/10.1016/j.landurbplan.2020.103766

Louv, R. (2008). *Last child in the woods: Saving our children from nature-deficit disorder*. Algonquin Books.

Mu, X., & Wang, Y. (2024). Connective urban greenway route planning: A spatial optimization perspective. *Transportation Research Part A*, 161, 131–146. https://doi.org/10.1016/j.tra.2023.12.002

Plassnig, T., Werner, P., & Smith, L. (2023). Successful scaling of edible city solutions to promote food security. *Urban Forestry & Urban Greening*, 74, 127654. https://doi.org/10.1016/j.ufug.2023.127654

Santa Barbara County Public Health Department. (2022). *Community health needs assessment*. https://www.countyofsb.org/350/Public-Health

Santa Barbara Foundation. (n.d.). *Community grants program*. https://www.sbfoundation.org/nonprofits/grants/

Shine, C. (2018). *Urban green infrastructure: A guide for city planners and policy makers*. Nature-Based Solutions Initiative, University of Oxford.

U.S. Environmental Protection Agency. (2023). *Green infrastructure and climate resilience*. https://www.epa.gov/green-infrastructure

Artistic proof of concept: