Sustainable Strategies for Communities: An EPA Perspective

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US EPA Region 9 (Pacific Southwest)
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Overview of EPA Voluntary Programs / Initiatives

- Smart Growth & Brownfields
- Energy
- Water
- Waste & Materials
- Other
EPA / Sustainability / Local Governments

- **Smart Growth & Brownfields**
  - Smart Growth Technical Assistance
    - Local workshops led by expert consultants and a next steps report
  - Resilience projects / FEMA partnership
  - Brownfields Assessment & Cleanup grants

- **Energy**
  - Energy Star (building benchmarking & labeled products)
  - Renewable Energy initiatives
    - e.g., solar on contaminated land, anaerobic digestion
EPA’s Office of Community Revitalization

- Local Foods Local Places
- Cool & Connected
- Healthy Places for Healthy People
- Building Blocks for Sustainable Communities
- Greening America’s Communities
Building Blocks Technical Assistance

Apache Junction, AZ

• Attracting infill development in economically distressed communities

• EPA Contractor-facilitated workshop in March 2017

• Customized final report with next steps

Next Steps Memorandum for Apache Junction, Arizona
PLANNING FOR INFILL DEVELOPMENT BUILDING BLOCKS TECHNICAL ASSISTANCE

July 2017
Map of Smart Growth Projects
Got Brownfields?
## Brownfields Grants

<table>
<thead>
<tr>
<th>Program</th>
<th>Grant Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>$200-550K, no match</td>
</tr>
<tr>
<td>Revolving Loan Fund</td>
<td>$1M, 20% match</td>
</tr>
<tr>
<td>Cleanup</td>
<td>$200-600K, 20% match</td>
</tr>
<tr>
<td>Areawide Planning</td>
<td>$200K, no match</td>
</tr>
<tr>
<td>Environmental Workforce and Job Training</td>
<td>$200K, no match</td>
</tr>
<tr>
<td>Targeted Brownfields Assessment</td>
<td>$100K in contractor assistance</td>
</tr>
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RE-Powering America’s Land

Encouraging siting renewable energy on current or formerly contaminated lands, landfills, and mine sites when aligned with the community’s vision

www.epa.gov/re-powering

- Mapping & Site Screening Tools
- Informational Resources
- Fact Sheets & Success Stories
EPA / Sustainability / Local Governments

**Water**
- **WaterSense** (labeled products)
- **Grants** administered by States
  - e.g., Clean Water State Revolving Fund with Green Project Reserve
- **Green Infrastructure** (webcasts, guidance, tools)
- **Water Infrastructure** (financing & efficiency info)

**Waste & Materials**
- **Sustainable Materials Management**
  - e.g., food waste reduction, SMM web academy
- **Safer Choice and Green Product Ecolabels**
- **Pollution Prevention (P2) and source reduction grants**
Green Infrastructure

• Cost-Benefit Studies
• Design & Implementation Resources
• Modeling Tools
• Policy Guides
• Funding Guides
Food Recovery Challenge

- **Participants:**
  - Track and measure their surplus food
  - Move toward their food recovery goals

- **Endorsers:**
  - Educate on sustainable food management
  - Conduct Food Recovery Challenge outreach

Managing and Transforming Waste Streams: A Tool for Communities

Helping Communities Plan for Less Waste

- Learn About the Tool
- Go to the Tool
- Go to the Policy and Program Impact Estimator
- Browse Examples By Topic

Waste is a valuable resource. Communities can recover the lost value of material discards by setting up systems for reuse, recycling, and composting.

Charting a Path Towards Zero Waste

The Managing and Transforming Waste Streams Tool: Explore 100 policies and programs communities can implement to reduce the amount of waste disposed in landfills and promote waste prevention and materials reuse across waste generation sectors. Access city and county ordinance, contract, and franchise agreement language and program websites.
Managing & Transforming Waste Streams

• Develop strategies for a local high diversion or zero waste plan from a menu of 100

• Learn about exemplary policies & programs implemented by communities across the U.S.

• Identify local ordinances & outreach materials that can be tailored to your community

• Review case studies & model language to inform new terms for your community’s hauler contract or agreement

www.epa.gov/transforming-waste-tool
Pollution Prevention Grants

• Pollution Prevention (PPG)
  • reserved for states & state entities (e.g. state colleges and universities), tribes, territories
  • ~$375K per year, grants range from $50-150,000
  • Focus on source reduction technical assistance to businesses

• Source Reduction Assistance (SRA)
  • States, tribes, local governments, non profits
  • ~$80-100,000 per year, grants range from $20-80,000

• RFPs released in January, applications due Spring, decision by June, money available October.
EPP – Ecolabels and Standards

Evaluated numerous standards and ecolabels against EPA Guidelines
• Development process – consensus, stakeholder engagement, balance
• Environmental effectiveness – address lifecycle, demonstrate reduced impact
• Conformity assessment – product assessment rigorous, transparent, independent
• Label management – transparent business model, dispute resolution

Current products
- Cafeteria (take out service ware, detergent, etc.)
- Construction (carpet, wallboard, flooring)
- Custodial
- Electronics
- Grounds / Landscaping
- Office / Furniture

Find the full list at www.epa.gov/p2/greenerproducts
Safer Choice

- Focus on safer chemical ingredients - with provisions for performance, packaging, and ingredient disclosure

- All Products must meet the Safer Choice Standard
  - Every chemical ingredient is reviewed for human health and environmental safety
  - Be covered under a Partnership Agreement between the manufacturer and EPA
  - Undergo annual audits

- About 2,000 labeled products from 500 partners - >1,300 Industrial & Institutional

- Opportunity for Purchasing / Procurement
  - Federal government wide
  - Seattle, Massachusetts
  - LEED credit

www.epa.gov/saferchoice
EPA / Sustainability / Local Governments

Other

- Clean Diesel Grant
- Greener Cleanups of contaminated sites
- State & Local Energy and Environment Program
  - Federal funding opportunities, webinar announcements
  - Urban Heat Island
Clean Diesel Grant

EPA grant to retire a large, old diesel generator with solar array + energy storage

Other partners:  Solar City and Tesla


Island now powered by 100% renewable energy
Greener Cleanups

“Minimize, Reuse, and Recycle…”

“Conserve, Protect, and Restore…”

“Improve Quality, Decrease Quantity of Use…”

“Protection, Efficiency, and Renewables…”

Core Elements

Materials & Waste

Energy

Land & Ecosystems

Air

Water

Footprint Methodology Metric Examples

- **Energy**
  - Total energy used
  - Total energy voluntarily derived from renewable resources

- **Air**
  - GHGs
    - Criteria Pollutant (NOx, SOx, PM)
      - On-site emissions
      - Total emissions
    - Hazardous air pollutants (HAPs)
      - On-site emissions
      - Total emissions

- **Water**
  - On-site water use (including public/potable water)
    - Quantity
    - Source of water
    - Fate of used and treated water
Urban Heat Island Reduction

- Trees & Vegetation
- Green Roofs
- Cool Roofs & Pavements

**Impacts:**
- Increased energy demand/use
- Increased smog formation
- Increased GHGs
- Thermal pollution to water bodies
- Human health – incidents of heat stroke & heat-related mortality
Other Initiatives

- ENERGY STAR Portfolio Manager®
- WaterSense
- Water Infrastructure and Resiliency Finance Center
- EPA Green Power Partnership
- Looking for Water Infrastructure Funding and Financing?
  - Find water infrastructure funding sources and financing resources.
  - Register for a webinar to learn more about the Water Finance Clearinghouse.
What is a sustainable street?

Encouraging a holistic, cross-strategy approach to local projects...

Complete Streets
- improved safety for pedestrians (e.g., high-visibility crosswalks, curb extensions, median refuge)
- transit-oriented development

Green Infrastructure & Stormwater Runoff
- rain gardens & tree planters
- filter strips & buffers
- porous pavement
- low-toxic sealant for street pavement

Urban Heat Island Effect
- large, canopy trees optimized for shading benefits
- Solar reflective paved surfaces

Materials Reuse & Recycling
- industrial material byproduct reuse in pavement mixes
- pavement reclamation technologies and less energy-intensive practices

Sustainable Landscaping
- compost or organic mulch
- low water-use plants
- limited turf
- pollinator-friendly species

Energy-Efficient Lighting & Reduced Light Pollution
- use of LED lights
- “Dark Sky” protective measures

Source: ReScape California
Source: Lawrence Berkeley National Laboratory
Source: SamTrans
Source: Nevue Ngan Associations
Source: California Nevada Cement Assoc.
Source: DOE Gateway Demonstration Results
Source: SamTrans
Project Ideas for Students

...Utilizing EPA tools

- Evaluate municipal waste recovery / reduction policy & program strategies
- Estimate 10-year tonnage & GHG reduction potential of waste recovery policy & program strategies
- Incorporate pollinator-friendly plants & practices into public landscapes
Project Ideas for Students

...Utilizing EPA tools

- Evaluate reducing supply chain GHG emissions from municipal purchases
- Assess feasibility of solar on contaminated land
- Benchmark building performance for energy/water/waste
- Conduct a food waste reduction initiative in the community
  - e.g., commercial food vendors, hotels, schools, residents
EPA Websites

https://www.epa.gov/smartgrowth
https://www.epa.gov/brownfields
https://www.energystar.gov
https://www.epa.gov/re-powering
https://www.epa.gov/greenpower
https://www.epa.gov/watersense
https://www.epa.gov/anaerobic-digestion
https://www.epa.gov/cwsrf
https://www.epa.gov/transforming-waste-tool

https://www.epa.gov/green-infrastructure
https://www.epa.gov/waterfinancecenter
https://www.epa.gov/transforming-waste-tool
https://www.epa.gov/greenerproducts
https://www.epa.gov/p2
https://www.epa.gov/cleandiesel
https://www.epa.gov/heat-islands
https://www.epa.gov/greenercleanups