SUSTAINABILITY ACTION PLAN
CITY OF PETALUMA
OCTOBER 7, 2015

IN CONSULTATION WITH

REV
Accelerate your sustainability impact
WHO WE ARE

The City operates under the Council/Manager form of government:

- Legislative and policy authority vested in the City Council.
- Administrative authority vested in the City Manager.

The City Council adopts citywide goals and priorities, and sets policy for the operation of the City.
WHAT WE DO

• Local Government
  • Public Safety – Police and Fire
  • Water Supply
  • Wastewater Treatment
  • Parks & Recreation
  • Streets
  • Transit System
  • Planning and Building Services
  • Affordable Housing and Programs

• 300 Employees
WHAT WE HAVE

- City Hall
- Police Station
- 3 Fire Stations
- Petaluma Community Center, Cavanagh Center, Kenilworth Teen Center, Senior Center
- Water Field Office
- Transit Maintenance Facility
- 47 City Parks including bike/ped trails and Turning Basin Marina
- Ellis Creek Water Recycling Facility
- Water Distribution System including storage tanks and pumps
- Wastewater and Stormwater Collection Systems
- Roadway System, including Street Lights and Traffic Signals
- Corporation Yard/Animal Shelter
- Petaluma Municipal Airport and Marina
- Vehicle Fleet
WHERE WE’RE GOING...

- **Petaluma General Plan 2025 (2008)**
  - Goals, Policies, and Programs for the Future Development of the City.
- **Petaluma River Access and Enhancement Plan (1996)**
  - Floodplain Management, Restoration, Public Access and Education.
- **Central Petaluma Specific Plan (2003)**
  - Mixed use plan for 400 acre area.
- **SMART Rail Station Areas: Transit-Oriented Development Master Plan (2013)**
  - Plan for increasing transit ridership by maximizing the potential for transit-oriented development around future rail transit stations.
- **Community Climate Action Plan 2020 (underway)**
  - Collaborative effort among all 9 cities and the County of Sonoma to reduce GHG emissions community-wide.
- **Municipal Climate Action Plan (2009)**
  - City-led initiatives for achieving GHG reductions on City buildings and infrastructure.
“Sustainability. In recent years, we have confronted a range of challenges: worsening traffic, frequent flooding, limited supplies of fresh water, lack of landfill space, unstable energy prices, global climate change, and others. We acknowledge that we bear a responsibility to craft our policies for the next twenty years and beyond with consideration for the world that we will be leaving to future generations.”

- Petaluma General Plan 2025
OUR GUIDING PRINCIPLES

1. Maintain a close-knit, neighborly, and family-friendly city.
2. Preserve and enhance Petaluma’s historic character.
3. **Preserve and enhance Petaluma’s natural environment** and distinct setting in the region – a community with a discrete edge surrounded by open space.
4. **Enhance the Petaluma River corridor** while providing recreational and entertainment opportunities.
5. Stimulate and increase public access and use of pathways as alternate transportation routes by providing safe, efficient and interconnected trail system.
6. **Provide for a range of attractive and viable transportation alternatives** such as bicycle, pedestrian, rail, and transit.
7. Enhance Downtown by preserving its historic character, increasing accessibility and residential opportunities, and ensuring a broad range of business and activities.
8. **Foster and promote economic diversity and opportunities.**
9. Expand retail opportunities to meet residents needs and promote the city’s fiscal health, while ensuring that new development is in keeping with Petaluma’s character.
10. Continue efforts to achieve a **jobs/housing balance**, emphasizing opportunities for residents to work locally.
11. **Foster a sustainable community in which today’s needs do not compromise the ability of the community to meet its future needs.**
12. Ensure infrastructure is strengthened and maintained.
13. Integrate and connect the east and west sides of town.
14. Encourage cultural, ethnic, and social diversity.
15. **Recognize the role Petaluma holds within the region and beyond.**
WHAT WE’VE DONE!

- Completed
  - Ellis Creek Water Recycling Facility
  - Traffic Signal Conversion to LEDs
  - Street Light LED Pilot Project
  - Lighting retrofit at all facilities
  - Select HVAC replacement
  - 3 Electric Vehicle Charging Stations (public)
  - 28 Electric Vehicle Charging Stations (private)
  - Sonoma Clean Power
  - CalGreen Tier 1
  - Swim Center Energy Efficiency
  - Continued expansion of recycled water service
  - Lawn Conversions (City Hall, PD, Cavanagh, FS)
  - Community Gardens
WHAT WE WANT TO DO

Work with the Community to Cut GHG Emissions 25% Below 1990 Levels by 2020.
WHAT WE’RE GOING TO DO

- Reduce Municipal GHG Emissions
- Reduce Solid Waste Diversion in the City of Petaluma
- Provide 780 Million Gallons of Recycled Water by 2025
- Convert Waste-to-Energy at the Wastewater Treatment Facility
- Install LED Streetlights City-Wide
- Reduce Building/Facility Energy Use
- Increase Solar Installations
- Increase Employee Engagement in Sustainability
- A Market Leadership Position in Sustainability
WHY WE’RE DOING THIS

- Potential for cost savings associated with reducing water, energy, and supply needs.
- Providing opportunities to Petaluma residents and businesses to implement sustainability initiatives.
- Retaining and attracting businesses with sustainable values.
- Lead by example.
PORTFOLIO OF INITIATIVES

SHORT-TERM, MID-TERM, AND LONG-TERM
# SHORT-TERM INITIATIVES, 0-6 MONTHS

<table>
<thead>
<tr>
<th>Business model and strategy</th>
<th>Behavior and culture change</th>
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</thead>
<tbody>
<tr>
<td>• Establish Green Team</td>
<td>• Electric Vehicle Chargers – Community Center, City Hall, Keller St Garage</td>
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<td></td>
<td>• Water Conservation</td>
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<thead>
<tr>
<th>Business policies/practices</th>
<th>Energy/resource management</th>
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<tbody>
<tr>
<td>• Purchasing Policy Revised</td>
<td>• LED Streetlight Retrofit Phase 1</td>
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<td></td>
<td>• Cool Roof – Police Department</td>
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</tbody>
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GREEN TEAM

Select staff person from 10 divisions/departments to meet bi-monthly to discuss opportunities for resource saving projects.

- **Cost:** allocating staff time to meet and for follow-up research
- **Benefit:** inter-departmental discussion related to improved resource management

<table>
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<th>Financial Costs/Benefits</th>
<th>Intangible/Other Benefits</th>
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<td>• Cost: allocating staff time to meet and for follow-up research</td>
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</tr>
<tr>
<td>• Benefit: inter-departmental discussion related to improved resource management</td>
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<tr>
<td>• Increased morale from working together to benefit departments and resources.</td>
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<tr>
<td>• Reduction of use of natural resources</td>
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**Goals/Metrics:** Implement one resource conserving project per year
## MID-TERM INITIATIVES, 6 MONTHS-2 YEARS

<table>
<thead>
<tr>
<th>Business model and strategy</th>
<th>Behavior and culture change</th>
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<tbody>
<tr>
<td>• Recycled water system expansion</td>
<td>• Electric Vehicle Chargers – Community Center, City Hall, Keller St Garage</td>
</tr>
<tr>
<td></td>
<td>• Water Conservation</td>
</tr>
<tr>
<td><strong>Business policies/practices</strong></td>
<td><strong>Energy/resource management</strong></td>
</tr>
<tr>
<td>• Green Cleaning Janitorial Services</td>
<td>• Community Ctr - HVAC, Cool Roof, Solar, LED retrofit</td>
</tr>
<tr>
<td>• Fleet Conversion to Alternate Fuel</td>
<td>• Police Department - Solar</td>
</tr>
<tr>
<td></td>
<td>• City Hall - Window Replacements</td>
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<tr>
<td></td>
<td>• Keller St Garage - Occupancy Sensors and LED lights</td>
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<tr>
<td></td>
<td>• LED Retrofit Phase II</td>
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LED STREETLIGHT RETROFIT

Replace high-pressure sodium cobrahead style streetlight fixtures with LED streetlight fixtures

Financial Costs/Benefits
- $1,750,000 project cost
- $145,000 yearly savings
- 7.89 years estimated simple payback
- Reduced maintenance

Intangible/Other Benefits
- Green house gas reductions
- Fewer recycled bulbs
- Improved light quality
- Improved night sky
- Reduction in hazardous materials

Goals/Metrics: Energy bill savings, reduced maintenance, community satisfaction
### LONG-TERM INITIATIVES, 2-5 YEARS

<table>
<thead>
<tr>
<th>Business model and strategy</th>
<th>Behavior and culture change</th>
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<tbody>
<tr>
<td>• BioMass to BioFuel</td>
<td>•</td>
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<th>Business policies/practices</th>
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<tr>
<td>•</td>
<td>• City Hall – cool roof, solar</td>
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<tr>
<td></td>
<td>• Fire Stations – cool roof, solar</td>
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<tr>
<td></td>
<td>• Water Field Office – cool roof, solar</td>
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<tr>
<td></td>
<td>• Swim Centers - solar</td>
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<td>• Airport - solar</td>
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**BIOMASS TO BIOFUEL**

Convert methane byproduct of sewage treatment to natural gas

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<th>Financial Costs/Benefits</th>
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<tbody>
<tr>
<td>$13,000,000 approx. project cost</td>
<td>Greenhouse gas savings</td>
</tr>
<tr>
<td>150,000 gallons of NG per year</td>
<td>Greening fleet</td>
</tr>
<tr>
<td>$394,500 estimated savings on gasoline purchases ($2.63/gal 9-23-15)</td>
<td>Local fuel source</td>
</tr>
<tr>
<td>32.95 years estimated simple payback</td>
<td>Recycling waste/closing loop</td>
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**Goals/Metrics:** 50% fleet conversion

- Reduce long-haul trucking
METRICS AND EVALUATION

- Evaluation Strategy
  - Implementation of Plan goals, policies, and programs.
  - Successful implementation of initiatives.
- Metrics reporting - Add a sustainability component to the City’s Annual Report that documents.
  - Kwh reduced
  - Recycled water delivered
  - Solid waste diverted
  - Solar systems installed
The City drafts and adopts a yearly, government-wide budget.
- Proposed expenditures must be balanced with projected revenue.

Specific, discrete projects are identified in the Capital Improvements Plan.
- Projects will be funded by local dollars and/or grant funding.
- Quick payback may be funded by loan.

Programs typically funded from General Fund
SUMMARY OF RISK/REWARD

- **Risks:**
  - Defunct system.
  - No savings generated.
  - Community perception.

- **Rewards:**
  - Conserving resources.
  - Goals met.
  - Energy cost savings that can be invested elsewhere.
  - Positioning Petaluma as a leader in sustainability and a hub for businesses with sustainability as their core value.
CONCLUSION

The City of Petaluma has a long-standing community-driven vision of sustainability. New development is measured within the guidelines and asked to meet and exceed our collective goals.

Looking forward to **undertaking initiatives to improve** municipal operations

Looking forward to **working with all of you** as well as other business and residents to support other initiatives which **benefit the community** and its sustainability.