



The City of Fresno's Strategy
for Achieving Sustainability



April 23, 2007

DRAFT



Green:

< Middle English *grene*

<Old English- 1. a color like that of an emerald; 2. a grassy lawn; 3. being a good steward of the earth's natural resources.

A Green city is one that:

- Protects urban forests
- Promotes smart growth
- Buys locally
- Harnesses solar energy
- Provides bike and pedestrian trails
- Leads by example
- Recycles, recycles, recycles!

Why 'Fresno Green'?

It is hardly a secret that the San Joaquin Valley's air is some of the dirtiest in the United States. One consequence is the high rate of asthma among our children. On a more global scale, we are quickly depleting our source of fossil fuels, our landfills are overflowing, and our natural resources are pushed to the brink.



Being “green” – that is being environmentally responsible – is no longer just a fad and technologically cool, it is imperative. To quote a Lakota Sioux proverb:

“We do not inherit the earth from our ancestors; we borrow it from our children.”

Imagine being able to see the Sierras from the valley every day, bicycling or walking to work, preserving more open space as well as our Valley's agricultural heritage. Imagine living in a city that mixes the best of the old with the new. These are some of the visions of *Fresno Green*. Green/sustainable programs combine cutting edge technology with the best common sense practices of the past. *Fresno Green* embraces the heritage of the “City Beautiful Movement” of the early 20th century—progressive urban design, expansive parks and open space, public health and public art programs...*Fresno Green* moves us toward a New City Beautiful.

Santa Fe Depot (1899)
National Register of Historic Places

KARANA HATTERSLEY-DRAYTON

Public Art, Fulton Mall

LYNN BAKER





The objective of
Fresno Green is clear
and unchanging:

Fresno will be a
sustainable city
by 2025.

The strategies and
tactics for achieving this
objective are intended to
be periodically reviewed
and updated as we move
toward the objective.

San Joaquin River from Sierra Sky Park, Fresno

KARANA HATTERSLEY-DRAYTON

Preface

Through the leadership of Mayor Autry and the City Council, the City adopted the 2025 Fresno General Plan in November, 2002. This Plan dramatically changed the patterns of growth in Fresno, focusing development “in-and-up” rather than continuing an outward expansion beyond the city’s planned urban boundary. The General Plan substantially enhances the established community’s physical and social environment through revitalization of Fresno’s existing urban core. The Plan promotes conservation of significant natural, physical, historical and cultural resources. The General Plan is working as evidenced by growth patterns over the past five years.

The next step is the progression of Fresno into a sustainable city, a community that meets the needs of the present without compromising the ability of future generations to meet their own needs. The foundation of sustainability is good stewardship of the earth’s natural resources. Clear views of the Sierra Nevada, extensive open space and pathways, encouragement of local agricultural producers, innovative solar technology, a healthy urban forest and zero landfill waste are all indicators of a sustainable community. Sustainable development balances economic development and environmental stewardship with innovative business enterprises that focus on the “triple bottom line” of providing economic, environmental and social benefits.

In early 2007, Mayor Autry, together with Council President Henry T. Perea, asked the City Manager and the One Fresno Key Results Area (KRA) Cabinet to develop a Green Element to support the 2025 Fresno General Plan. *Fresno Green: the City of Fresno’s Strategy for Achieving Sustainability* is an action-oriented plan that will transform Fresno into a sustainable city. *Fresno Green* consists of 25 strategies with accompanying implementation tactics.

Progress has already been made.

- The City’s vehicle and bus fleets are converting to clean fuels.
- Land use policies encourage walkable mixed use neighborhoods.
- Solar panels are sprouting off the tops of residential and commercial buildings as well as at the Municipal Service Center and Fresno Yosemite International Airport.
- The City’s Team Clean Air initiative is a progressive program designed to reduce air polluting emissions through City operations.
- Operation Clean Air, initiated by Mayor Autry, is a regional collaborative focused on improving air quality.
- The Public Utilities Department has been honored nationally for energy conservation.
- The Public Works Department is completing a significant portion of a city-wide traffic synchronization project that will reduce vehicle emissions.
- The Parks, Recreation and Community Services Department continues to partner with the San Joaquin River and Conservation Trust to develop a 23-mile, 6000 acre green belt with recreational trails.
- Interest in a sustainable future was furthered by City Council action in February 2004 through the efforts of current Council President, Henry T. Perea. His proposal to explore sustainable building development resulted in the Planning and Development Department convening a task force of City employees and private sector members to develop an incentive-based *Fresno Green* building program.
- The Mayor’s Creative Economy Council Report of 2006 targeted sustainability and energy efficiency as major community goals.

Ready to plant the seeds

The field is plowed and the City is ready to plant the seeds of a more thorough, multifaceted and unified approach to growing a green city. The purpose of *Fresno Green* is to provide the framework of this approach.

The strategies and tactics of *Fresno Green* will aim to reduce consumption of non-renewable resources, improve air quality, position Fresno as a leader in solar energy and other green enterprises, reduce waste generation, and honor our agricultural heritage as we build the future.

Progress toward *Fresno Green* occurs in two arenas:

- 1) the community at large (the private sector)
- 2) the public sector.

We believe that in order to encourage a community-wide transformation the City of Fresno needs to “walk-the-talk” and take bold action.

Fresno Green is organized into five visions:

- **New City Beautiful**
- **Sierra View 2025**
- **Solar Valley**
- **Green Enterprise**
- **City as Good Steward**

The strategies listed in the first four areas are generally private-sector oriented, supported by City of Fresno programs in Section 5, “City as Good Steward.” However, some public sector City policies appear in other sections; the topics of air quality and energy conservation inevitably overlap, which means a variety of strategies can be accomplished with a few well-chosen and concerted actions.

Finally, *Fresno Green* is intended to be a bridge. Working together, we can forge the public-private partnerships needed to accomplish the objective. Continuing this metaphor, we can then cross the bridge to a more sustainable future by refining our strategies and tactics into an innovative element of the City’s General Plan. Finally, through partnerships we will elevate and deepen our commitment to the triple bottom line of economic, environmental and social sustainability.

We invite all to join us in crossing the bridge into a more sustainable future.



Photovoltaic cells at the City's
Municipal Service Center

DEPARTMENT OF PUBLIC UTILITIES

Fresno Green Visions

New City Beautiful

Fresno will be nationally recognized for the innovative integration of buildings within their neighborhood context, good urban design, and for giving priority to public health, open spaces, public art, historic preservation, urban forests and the protection of natural habitats.

Sierra View 2025

The Sierra Nevada mountain range will be clearly visible to all Valley residents by 2025. Public health will be improved by having cleaner air, enhanced public transportation and additional opportunities for walking and cycling.

Solar Valley

Fresno will become a leader in renewable energy use and creation of related innovative technology and new business enterprises. With its abundant sunshine and population growth, the opportunity exists to improve air quality, reduce dependence on foreign energy, and provide attractive new jobs by harnessing solar and other types of renewable energy.

Green Enterprises and Economic Development

The City of Fresno will become a center for innovative business enterprises that focus on the “triple bottom line” of providing environmental, economic and social benefits.

City as Good Steward

The City of Fresno will lead by example by greening up its facilities and practices, embracing a zero waste initiative, providing appropriate staff resources, and collaborating with other municipalities and agencies to develop regionally-based Green programs.

Sustainable:

to hold. 1. to keep in existence, keep up, maintain or prolong; 2. to support from below; 3. renewable, the achievement of human and ecosystem well-being together, or “Green.”

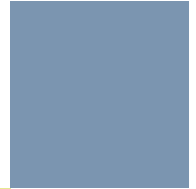


Affordable green home
Fresno Housing Authority

KARANA HATTERSLEY-DRAYTON

New City Beautiful:

Green Buildings and Sustainable Development, Public Health, Open Spaces



Strategy 1

Support new urbanist principles that advance higher density, mixed use, walkable, bikeable and accessible neighborhoods which coordinate land use and transportation with open space systems for recreation and ecological restoration. Promote Green building standards for private residential, multi-family and commercial projects.

- Finalize Planning Department's incentive-based green building program which links sustainable building and communities, historic preservation, public art and historic landscapes into a holistic approach.
- Build at least 20% of all future City-sponsored affordable housing units to meet an adopted Green building standard.
- Update general plan and zoning code to promote increased densities around activity centers and transportation corridors, and to encourage trip reduction through mixed use development.
- Update subdivision design standards to promote vehicular and pedestrian connectivity.
- Update street design standards to provide increased quality of life for residential neighborhoods, a more attractive bike and pedestrian environment, and conservation of natural resources.
- Adopt revised zoning ordinances and building codes that are consistent with the Fresno Green incentive program.

Strategy 2

Build all new municipal buildings according to a green building rating system. Adopt green technology for the retrofit of existing City buildings.

- Make public buildings didactic through the development of permanent interpretive panels at each site that "teach" about the building's use of green technology.
- Require all construction wastes generated from new construction and demolition to be recycled.

Strategy 3

Plan new residential areas and retrofit existing neighborhoods to be within one half mile of public parks, school playgrounds and/or recreational open space.

- Refine the City's 2007 draft Open Space Policy in order to meet this strategy.
- Revise the City's Parks' Master Plan to meet this strategy.

Strategy 4

Plant and maintain trees in order to achieve shading of at least 50% of all hardscaped parking and pedestrian surfaces.

- Work with community groups such as Tree Fresno to conduct an inventory of existing canopy coverage in the city and to prepare adequate maintenance plans of City-owned trees and landscaped medians.
- Develop Alternate Public Improvement Standards (API) that protect Fresno's historic landscapes, such as Kearney Boulevard.

Kearney
Boulevard
1887-1893

National
Register
of Historic
Places

KARANA
HATTERSLEY-
DRAYTON



Strategy 5

Through implementation of the Regional Cooperation Element of the 2025 Plan, protect critical habitat corridors and other key habitat characteristics (e.g. water features, food bearing plants, shelter for wildlife, use of native species, etc.) from unsuitable development.

- Work with regional partners to develop an agricultural land conservancy program. Apply new agricultural land preservation and conservancy programs both within and outside of the City's Sphere of Influence (SOI).
- Provide incentives for habitat restoration and protection through the City's *Fresno Green* building incentive program.
- Partner with the San Joaquin River Parkway and Conservation Trust to maintain and operate accessible areas along the SJR Parkway.

Strategy 6


Reduce the use of a disposable toxic or non-renewable product category by at least 50%.

- Target a particular toxic or non-renewable product for phased elimination.
- Support a \$300,000 start up grant request to California Integrated Waste Management Board for a facility for residential hazardous waste.
- Support Producer Responsibility, where product manufacturers are responsible for the final disposal of any toxic products produced.
- Reduce use and sale of non-rechargeable batteries.
- Reduce use and sale of incandescent bulbs.
- Reduce use of plastic shopping bags by local retailers.



Tubing for
Radiant
Flooring (left);
Installation
of Insulated
Concrete
Forms (right)

ALVIS PROJECTS



“...millions of poor people will suffer from hunger, thirst, floods and disease unless drastic action is taken.... [and] nearly a third of the Earth’s species will vanish if global temperatures rise just 3.6 degrees above the average temperature in the 1980s-90s...”

–Intergovernmental Panel on Climate Change
Fresno Bee, page 1, 7 April 2007

Sierra View 2025

Strategy 7

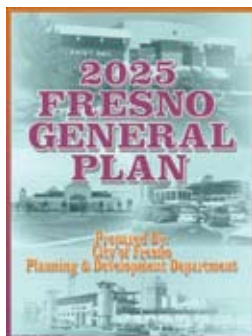
Expand affordable public transportation services to within a quarter mile of every city resident.

- Expand the City's FAX system to provide service to all neighborhoods.
- Implement bus rapid transit along identified corridors pursuant to the Fresno Transit Master Plan Project.
- Focus new growth around transit corridors in densities high enough to support public transit pursuant to the *2025 Fresno General Plan*, and forthcoming *Highway 41 Corridor and Activity Center Study* recommendations.

Strategy 8

Reduce particulate matter and smog-forming emissions from city fleets by an additional 50%.

- Continue successful emissions reduction efforts of the City's Team Clean Air program. Reduce City of Fresno operations and fleet emissions by 25% in three years through conversion of fleet vehicles to clean fuels, implementation of e-government, alternative work schedules and teleworking, and traffic signal synchronization.
- Replace all City-owned light equipment vehicles with hybrid vehicles, and if not practical for hybrid application, require a minimum of 30 miles per gallon fuel efficiency



2025 General Plan Cover

CITY OF FRESNO

FAX bus passing through downtown Fresno

KARANA HATTERSLEY-DRAYTON

Strategy 9

Reduce by 20% the number of commute trips by single occupancy vehicles.

- Offer incentives to employers who implement a Transportation Demand Management Program and commit to the goal of 20% reduction in single occupancy vehicles in seven years. Such programs may include provision of free bus passes, a parking pricing program, preferential parking for vanpools and carpools, bicycle racks and lockers, and employee showers.

Fresno skyline on a smoggy day

DEPT. OF PUBLIC UTILITIES



Strategy 10

By 2015 meet the federal clean air standards through coordination with the San Joaquin Valley Air Pollution Control District and Operation Clean Air.

- Address the high pollution impacts of drive-thru facilities.
- Consider policies for alternatives to the use of leaf blowers for residential and commercial uses.
- Consider policies for alternatives to the use of gasoline powered lawn mowers.

San Joaquin River

KARANA HATTERSLEY-DRAYTON





"Smart House," Old Fig

ALVIS PROJECTS



Strategy 11

Increase the use of renewable energy to meet 50% of the city's annual electrical consumption of KWH.

- Adopt the City of Fresno Solar Energy System Rebate and Loan Program.
- Provide up to 100 solar water heaters to qualified affordable housing and social service organizations, laundromats, health clubs, hospitals and other high-volume hot-water users through a competitive grant.
- Investigate the use of a bulk solar module procurement policy, as used by the California Construction Authority at the Fresno Fairgrounds.

Strategy 12

Reduce the city's peak electrical load by 10% through energy efficiency, shifting the timing of energy demands, and conservation measures.

- Work with PG&E to implement a city-wide energy conservation program.
- Add a weatherization/energy conservation component to all City renovation and repair programs. Develop and implement homeowner weatherization program to aid seniors and low-income residents in insulating their homes.

Strategy 13

Reduce citywide greenhouse emissions by 25%.

- Develop a system for accounting and auditing greenhouse gas emissions.
- Register the City of Fresno in the California Climate Action Registry, a volunteer program to record and monitor greenhouse gas emissions.



California vineyard



Strawberries from Dinuba
Whole Foods Market
April 2007

KARANA HATTERSLEY-DRAYTON

Green Enterprises and Economic Development

Strategy 14

Position Fresno as a regional center for Green Enterprises.

- Support and encourage existing green enterprises in the City of Fresno.
- Incorporate into the City's Economic Development Strategic Plan policies and incentives for attracting new green businesses.
- Encourage new businesses to locate in the city that meet green pairing needs.
- Encourage development of a green business park for new businesses where waste streams are treated as resources.

Strategy 15

Create environmentally beneficial jobs in low-income neighborhoods.

- Designate and establish Air Quality Empowerment Zones which produce quantifiable emissions reductions and preserve or create jobs in economically disadvantaged areas.

Strategy 16

Promote the public health and environmental benefits of supporting locally grown and organic foods.

- Encourage all city facilities (including schools) to serve at least 20% locally grown and organic food.
- Work with large manufacturers and food service operators to remove obstacles and identify opportunities for piloting decentralized food purchasing.
- Work with local and regional stakeholders to develop regional buying incentives.

“Previously the emphasis has been on materials and technology without context. We need to look at cities as complete development organisms that reestablish ecology and restore society.”

John L. Knott Jr.
CEO
Noisette Company
South Carolina

Recycling demolished buildings for
base rock for highway construction
Kroeker Co.
August 2006

KARANA HATTERSLEY-DRAYTON



City as Good Steward

Strategy 17

Achieve zero waste to landfills.

- Zero waste: Encourage businesses to emulate sustainable natural cycles, where all discarded materials are resources for others to use.

Strategy 18

Implement “user-friendly” recycling and composting programs, with the goal of 75% reduction of solid waste disposal to the landfill.

- Food Waste Diversion: Construct a food waste composting waste-to-energy facility or other process for the beneficial reuse of collected green waste, food waste and bio solids at the Waste Water Treatment Facility.

Strategy 19

Every three years, identify one product, chemical, or compound that is used by the municipal government that represents the greatest risk to human health and adopt an ordinance to provide incentives to reduce or eliminate its use.

Strategy 20

Protect the ecological integrity of the city's primary drinking water sources (i.e. aquifers, rivers, lakes, wetlands and associated eco-systems).

- Install water meters on all residential and commercial buildings.
- Use conservation irrigation technology as well as a water efficiency plant palette for all City-owned properties.

Strategy 21

Increase by 10% the use of recycled water and the implementation of a sustainable urban watershed planning process that includes participants of all affected communities and is based on sound economic, social and environmental principles.

Strategy 22

Lead by example through environmentally responsible policies and staff training.

- Establish a “*Fresno Green*” Coordinator to facilitate interdepartmental environmental programs.
- Establish and maintain an interdepartmental “*Fresno Green*” Task Force.
- Establish a rigorous Green training program for city employees that includes Leadership in Energy and Environmental Design (LEED) and other appropriate certified programs.
- Adopt a green purchasing policy for all city departments.
- Install bike racks and showers for employees at major City-owned facilities.
- Provide an energy-audit of all City buildings.
- Install green/cool roofs on City-owned buildings which require a roof replacement.
- Investigate feasibility of installing solar water heaters on all City buildings.
- Install diesel after-treatment devices on 40 heavy duty trucks. Convert the City’s entire fleet of trucks to clean fuels.
- Add an additional LNG fuel storage facility for 15,000 gallons.
- Apply to the California Solar Initiative Program for a 1 megawatt facility for the Airport’s Ready Return Car Rental Facility.

Strategy 23

Take the lead in working with the media, educational groups and other public agencies to develop regionally-based green/sustainable programs of benefit to the broader community.

Strategy 24

Incorporate sustainable policies as developed through this strategy into a Green Element of the City of Fresno’s 2025 General Plan.

Strategy 25

Create a *Fresno Green* Scorecard in order to measure progress toward sustainable goals and measures, as included in the Green Strategy.

Credits

Fresno Green Strategy

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Notes

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