

SAVING THE WORLD THROUGH ZONING: SUSTAINABLE COMMUNITY DEVELOPMENT CODE REFORM PROJECT

Presented By:

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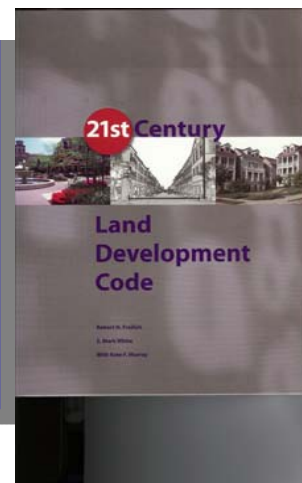
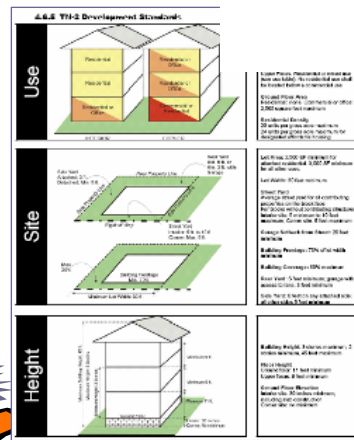
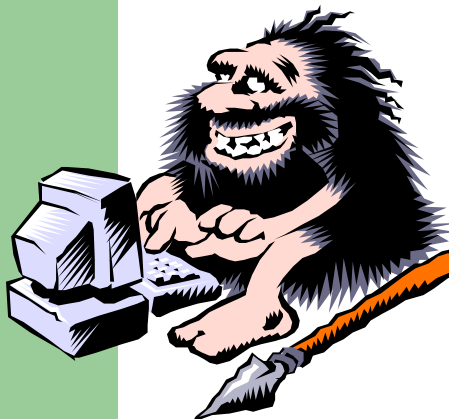
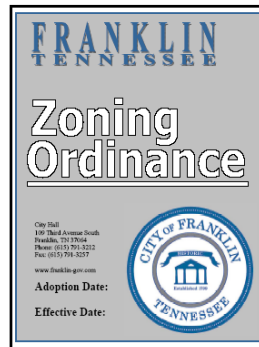
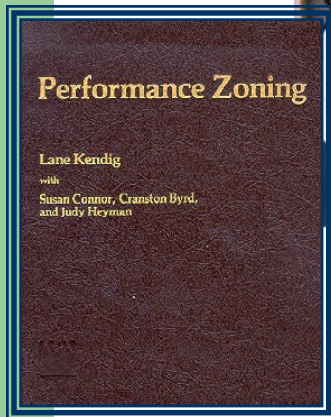
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C L A R I O N

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May 2010

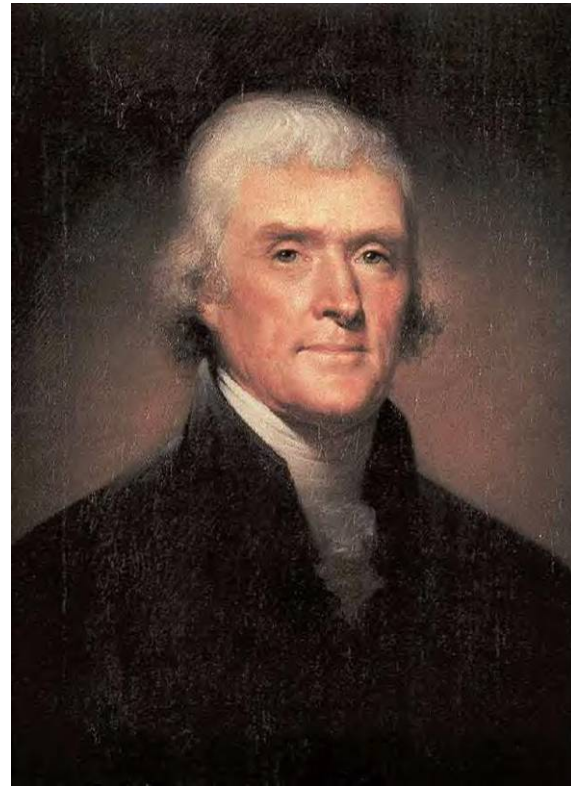




What is a Sustainable Community?

“Then I say the earth belongs to each generation during its course, fully and in its own right, [but] no generation can contract debts greater than can be paid during the course of its own existence.”

– Thomas Jefferson (1789)



Sustainable Communities...

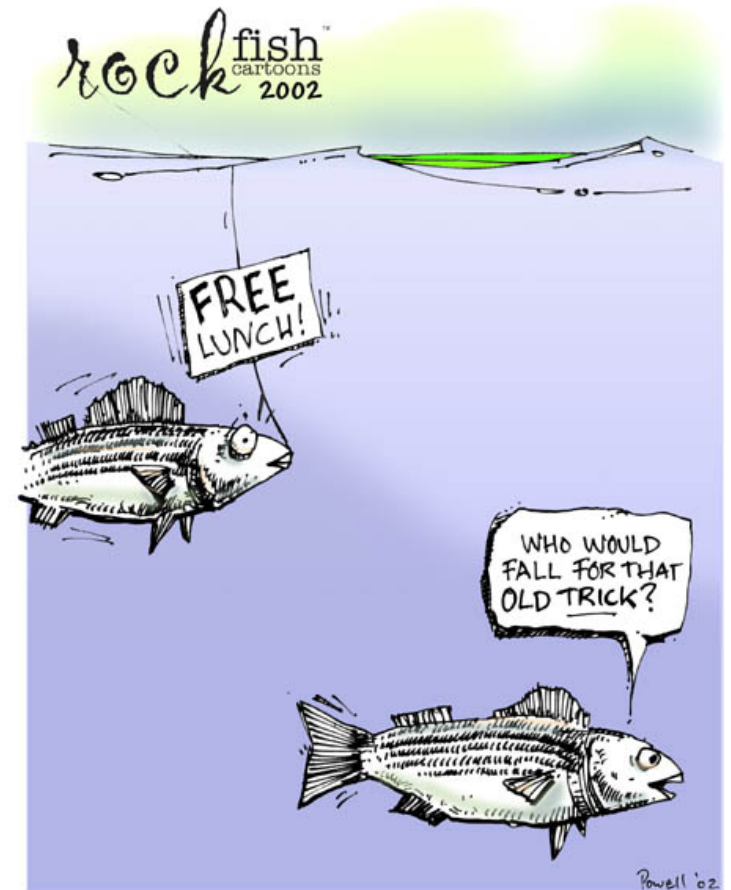
...meet the needs of the present while ensuring that future generations have the same or better opportunities. *Brundtland Commission 1987*

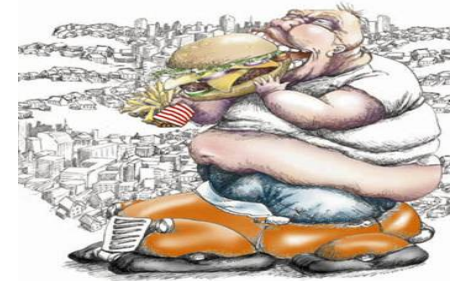


Sustainable Communities...

THERE IS NO FREE LUNCH!!

In nature, both sides of the equation must balance, for every gain there is a cost, and all debts are eventually paid. (Barry Commoner)





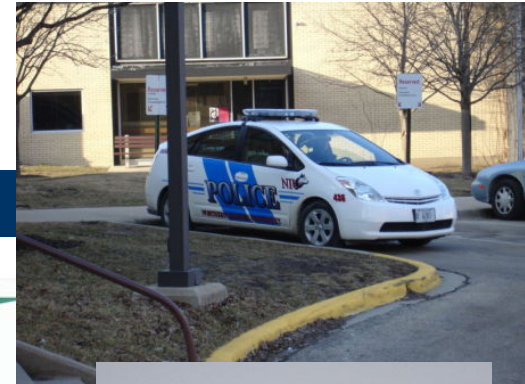
A SUSTAINABLE WORLD???

- **Fuel:** Oil production to peak in next 5-10 years...while world oil consumption increases by 50% by 2030.
- **Food:** China will demand more food in 2030 than the entire world produces today.
- **Health:** 20% of U.S. population obese—doubled in last 10 years. 60% overweight.
- **Climate:** 10 of last 14 years hottest on record; 99% of glaciers in Alaska in retreat.
- **Biodiversity:** 6TH major species extinction event looming??

Local Sustainability Programs

Typical Focus: Gov't Operations

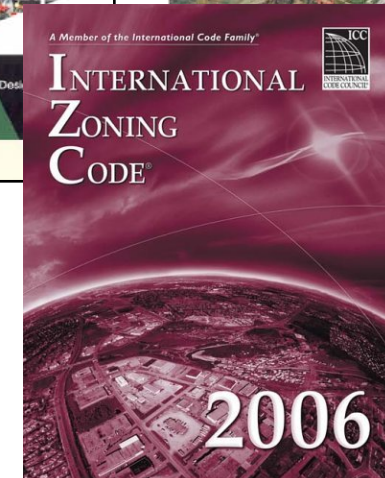
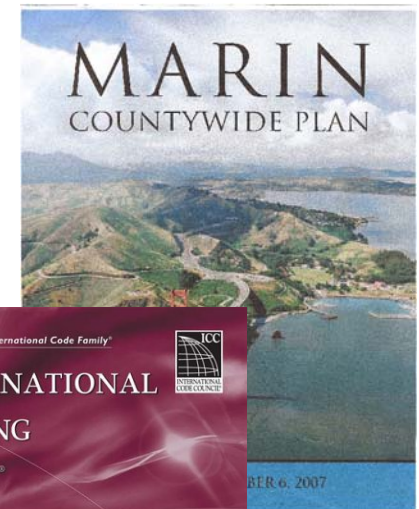
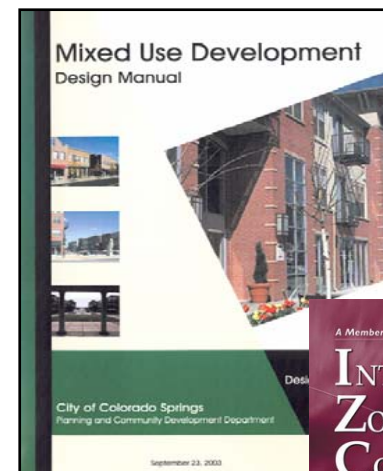
- Hybrid fleets
- Compact fluorescent bulbs
- Mass transit
- Green city buildings
- Purchase renewable power
- Recycling programs



Local Sustainability Programs

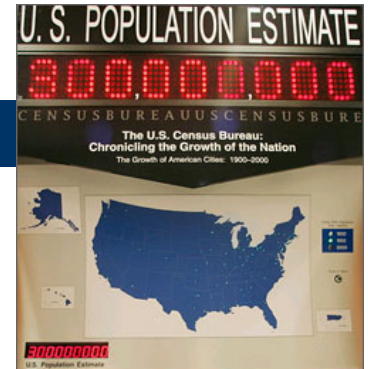
WHAT'S MISSING??

- Little focus on:
 - Development patterns/
private development
 - Development code
barriers to “green”
projects
 - Code incentives



WHY DO DEVELOPMENT PATTERNS AND CODES MATTER??

- 100 MILLION MORE OF US BY 2043!!
- 70 MILLION NEW HOUSING UNITS
- BURN CALORIES, NOT FOSSIL FUEL!!



WHY DO DEVELOPMENT PATTERNS MATTER??

NET ZERO ENERGY = SPRAWL = “*GREENWASH*”

- 5 miles from nearest small town/15 miles to small city
- No connections to adjacent subdivisions
- No jobs, services
- Critical wildlife habitat



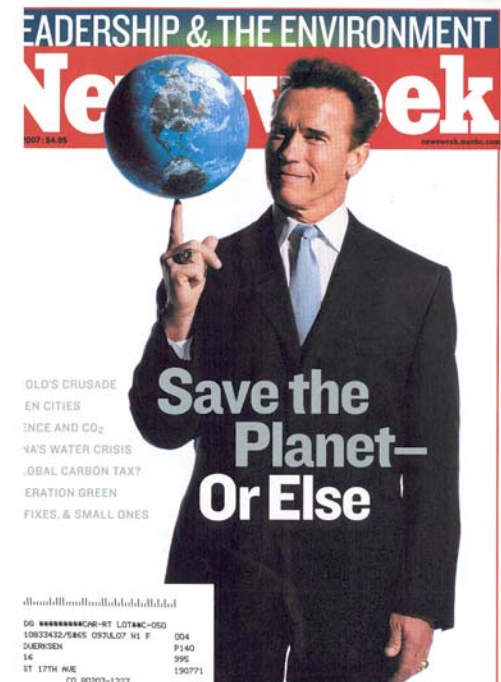
How Can a Development Code Support Sustainability?

- Development codes CAN help address critical issues:
 - CLIMATE CHANGE/CARBON EMISSIONS
 - RENEWABLE ENERGY
 - FOOD SUPPLY
 - HEALTH
 - WATER CONSERVATION
 - SAFETY
 - HABITAT PROTECTION
 - AND OTHERS



THINK GLOBALLY... ACT LOCALLY

- Development codes = powerful tool to accomplish community goals.
- DON'T WAIT:
 - Mandatory elements in comp plans
 - States preempting/suing local govts.
 - Federal laws...GHGs; ESA; MGA
 - Save money
 - Federal stimulus funding for code updates



Pros and Cons of Existing Code Approaches

- **Traditional Euclidean Zoning (1920s +)**
 - Emphasis on separation of use: “..fire, contagion, disorder..” Can protect against incompatibilities.
 - Can be inflexible and stifle creative development
- **PUD Zoning (1960s--present)**
 - Prevalent form of zoning in fast-growing areas
 - Negotiated, flexibility = amenities + uncertainty
- **Performance Systems (1970s)**
 - Anything, anywhere...if can mitigate; uncertainty.
 - Emphasis on environmental protection
- **Form-Based Regs/Smart Code**
 - Form vs. use. Connectivity, mixed-use, public realm
 - Highly prescriptive; “design without nature??”



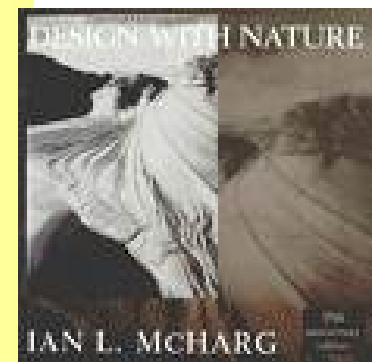
Performance Zoning

Lane Kendig
with
Susan Connor, Cranston Byrd,
and Judy Heyman



KEY FEATURES OF A SUSTAINABLE CODE?

- Covers new topics—energy, health, food security, climate change, recycling—and relationships among them
- Not just reactive or prescriptive—removes barriers, creates incentives
- Balances environment, economics, social aspects of development
- Tailored regionally to climate and ecology...Design With Nature.



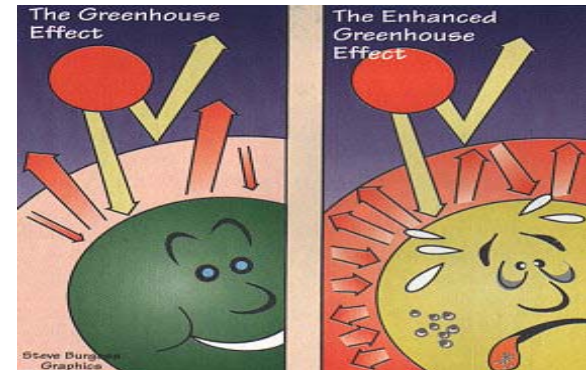
IMPLEMENTING SUSTAINABILITY PRINCIPLES THROUGH ZONING

THREE PATHS TO SUSTAINABILITY:

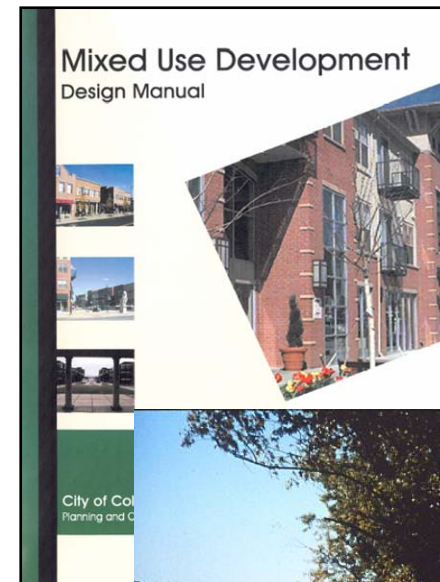
- **REMOVE OBSTACLES**
 - > Eliminate barriers to solar panels/wind turbines
- **CREATE INCENTIVES**
 - > Density bonuses for green roofs
- **REGULATE**
 - > Mandatory water-conserving landscaping



Sustainable Code: Climate Change



- Remove Obstacles
 - Create mixed-use zone districts and help reduce reliance on automobile
 - Allow solar panels by right and clothes lines
- Create Incentives
 - Landscaping credit for protecting existing trees
 - Open space credit for green roofs



Sustainable Code: Climate Change

- **Regulate:**
 - Require green/cool roofs
 - Require minimum density development around TOD stations



Sustainable Code: Energy Conservation/Production

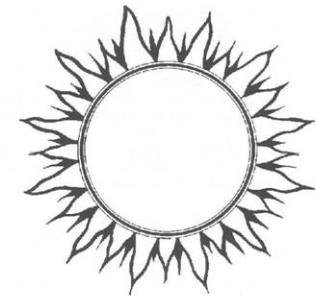
- Remove Obstacles: Solar collectors as by-right accessory use (including historic districts); Permit clothes lines.
- Create Incentives: Over-the-counter permitting and fee waivers



Sustainable Code: Energy Conservation/Production

- Regulations: Solar access at site level

Solar Access
Guide



or Solar Shadow Analysis



Sustainable Code: Energy Conservation/Production

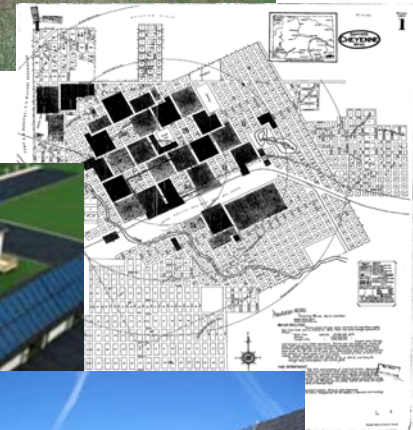
- Regulations: Require subdivision solar orientation analysis

Community examples:

Cheyenne, WY

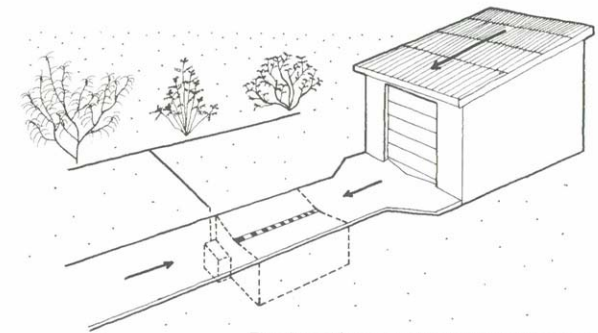
Fort Collins, CO

Multnomah County, OR



Sustainable Code: Water Conservation

- Remove Obstacles:
Permit water harvesting
- Create Incentives:
Landscape credit for tree preservation
- Regulations: Mandatory water-conserving landscape standards



Roof catchment with sloping driveway, underground storage.





Sustainable Code: Health/Safety

- Remove Obstacles: Reduce parking requirements for mixed-use/TOD projects
- Create Incentives: Offer additional open space credit for maintaining public lands access
- Regulations: Adopt enhanced hazard-area standards. Require safe-street routes.



Courtesy of www.bikepedimages.org

Sustainable Code: Other Issues

- Housing choices
- Mobility/transportation
- Green infrastructure
- Habitat protection
- Waste management



THE TIME IS RIPE: PEOPLE ARE READY!!!

Rooftop garden
on car



CAN WE REVOLUTIONIZE ZONING???



EUCLIDEAN ZONING MILESTONES:

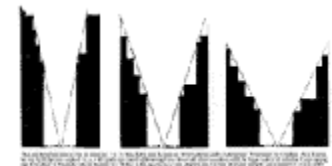
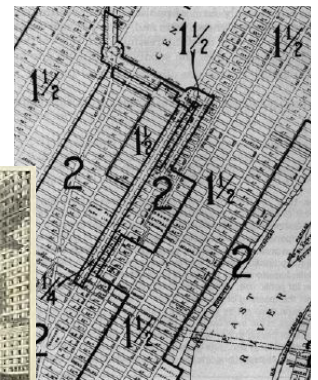
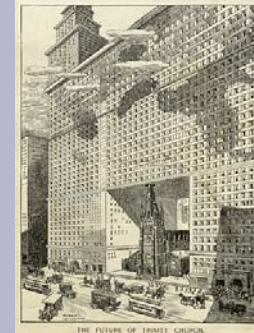
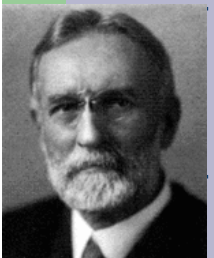
- 1916—New York City adopts city wide zoning scheme. Only 48 cities by 1921



1921—Standard State Zoning Enabling Act

1926—Upheld by U.S. Supreme Court

1926—425 zoned cities=1/2 U.S. population



Sustainable Code Implementation: Low-Hanging Fruit Strategy

Alternative energy

- Permit solar panels/small wind turbines as by-right accessory use

Climate Change

- Allow clothes lines

Food Production

- Allow/require community gardens as open space set aside



Sustainable Code Implementation: Use Menus As A First Step

Article 3: Building Design Standards
Section 3.3. Options to Improve Building Design
Subsection 3.3.2. Building Design Options

C. Table of Design Options

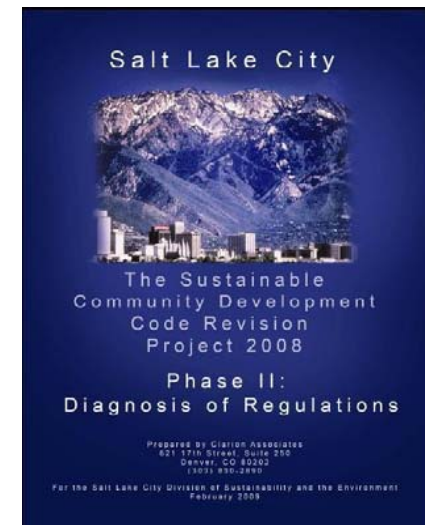
Option	Description / Comments
Group A: Each option worth 1 point	
Achieve star rating under the City of Austin Green Building program.	Each star of the rating qualifies for one point. No double credit for Green Building points from Group B.
Provide for liner stores in building façade. (1 point for each liner store)	See Article 5, Definitions
Provide façade articulation.	See definition D.1. below.
Provide primary entrance design.	See definition D.2. below.
Provide roof design.	See definition D.3. below.
Provide building materials meeting the standards of this section.	See definition D.5. below.
Improve storefronts to new regulatory standard of Section 3.2.2 for glazing type/size & shading.	Applies only for buildings existing at the effective date of this Subchapter.
100% of glazing on ground-floor facades that face any street or parking lot have a Visible Transmittance (VT) of 0.6 or higher.	
Complies with neighborhood design guidelines	
Group B: Each option worth 2 points	
Design building so that at least 75% of the façade facing the principal street consists of storefronts with at least two separate entrances facing the principal street	
Provide sustainable roof.	See definition D.4. below.
Integrate solar power generation into building design.	The specific features and design shall be approved by the Director. Examples may include, but are not limited to, rooftop solar panels or Building Integrated Photovoltaics.
Achieve Green Building rating of 2 stars.	



THE TIME IS RIPE: LOCAL GOVERNMENTS ARE LEADING THE WAY!!!

SALT LAKE CITY GREEN

<http://www.slccgreen.com/CodeRevision.htm>



WASHINGTON, D.C., ZONING REVIEW

<http://dczoningupdate.org/sustainability.asp?area=sus>

WWW.LAW.DU.EDU/RMLUI



Sustainable Community Development Code

A Code for the 21st Century

Beta Version 1.1

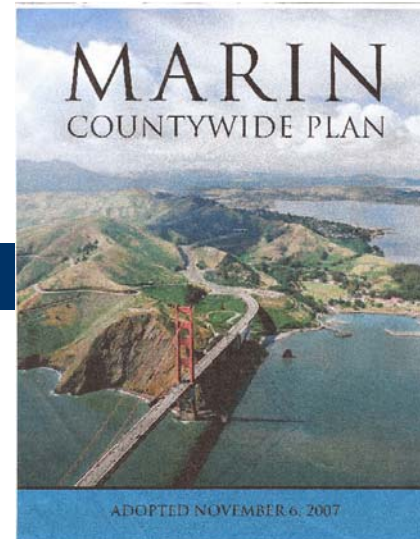
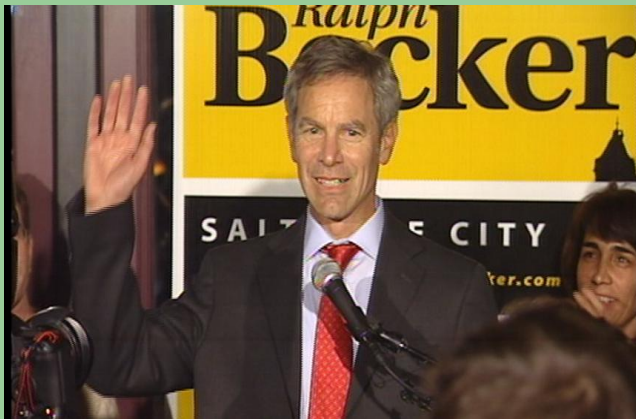


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REMEMBER:

Before There Was The Sustainable
Code, There Was The....

SUSTAINABLE PLAN



SUSTAINABLE COMMUNITIES BEGIN WITH SUSTAINABLE PLANS AND DEVELOPMENT CODES

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