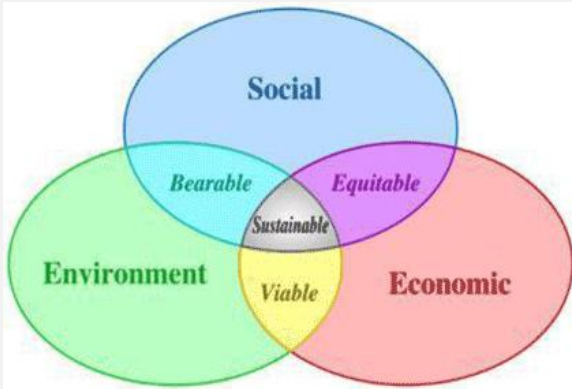


# **LAND-USE PLANNING**

## **Chapter 12**



# LAND-USE PLANNING

- Ideally careful planning takes into account the geography and special circumstances of the landscape
- Usually, decisions are made based on short-term needs and economic decisions.



## **OREGON'S 1973 LAND USE PLANNING PROGRAM USED AS MODEL**

- To conserve land and resources vital to the state's economy and environment
- To encourage efficient development and public services
- To coordinate planning with local, state and federal agencies
- To enhance the state's economy
- Planning process accessible to citizens



# NORTH AMERICA SIGNIFICANTLY MODIFIED

	US	Canada
Crops and Livestock	52%	8%
Forests and Natural Areas	42%	54%
Urban centers and transportation corridors	4%	<1%
Wilderness/Other	2%	27%

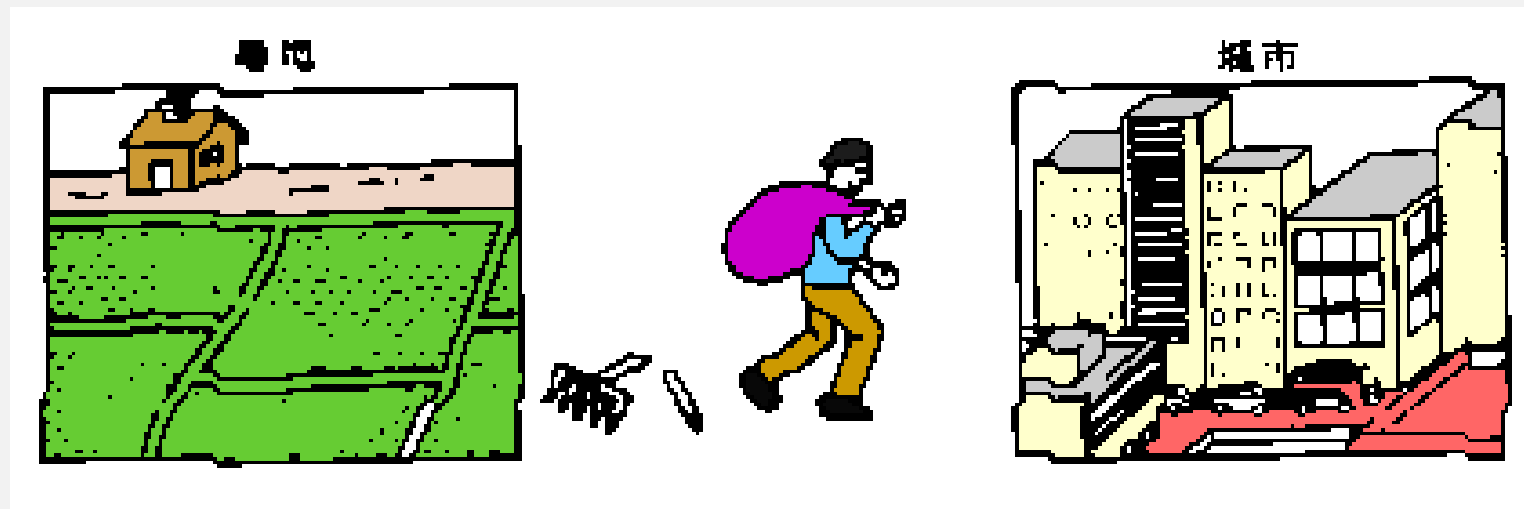
# MAJOR CITIES LOCATED ON RIVERS, LAKES AND OCEANS



- Water used for transportation, drinking, power and waste disposal.
- Availability of minerals, farmland, forests etc. also important

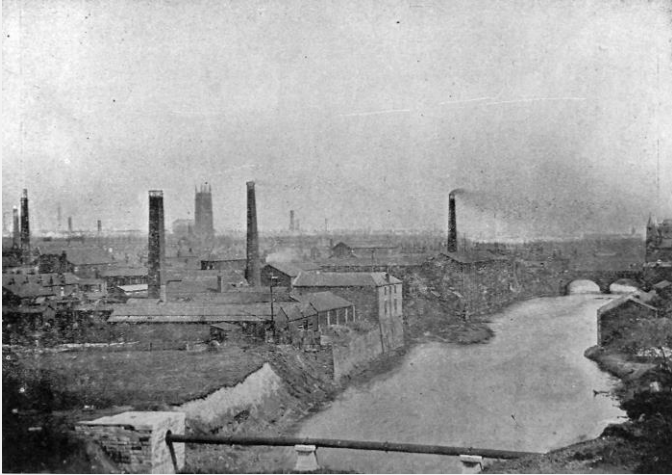
# RURAL-TO-URBAN SHIFT

- For North America during the late 1800's due to the Industrial Revolution (Agricultural improvements and factory jobs)
- Cities also grew in N.A. from European immigrants and for cultural, social and artistic opportunities
- Still occurring in developing countries today





# MIGRATION FROM THE CENTRAL CITY TO THE SUBURBS



- Pollution from Industry
- People moved out = suburbs
- Farm land converted to houses





# SUBURBS

- **Urban Sprawl:** spread of low-density, auto-dependent development on rural land outside compact urban centers (**Urbanization**)
  - Excessive land consumption
  - Dependence on autos and poor public transit
  - Fragmented open space
  - Lack of choice in housing types and prices
  - Branching street patterns and cul-de-sacs
  - Lack of public spaces and community centers
  - Commercial buildings with large parking lots
  - Commercial, industrial, single-family and multiple-family houses separated





# PATTERNS OF URBAN SPRAWL

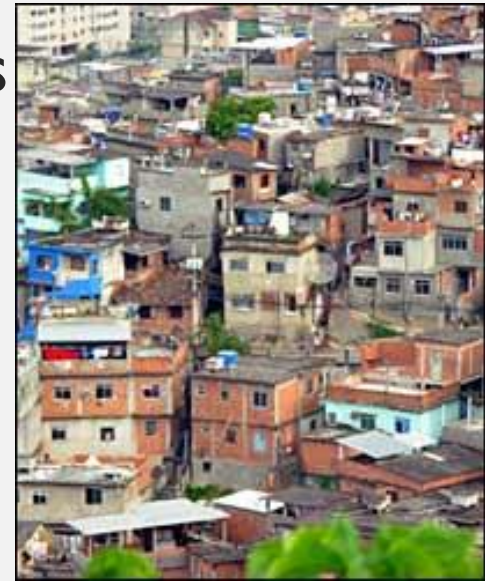
- **Wealthy Suburbs:** Usually large lots with nice geography
- **Tract Development:** similar residential units over large areas (when there is still farmland in between, it is called leap-frog development)
- **Ribbon Sprawl:** construction along transportation routes to the city (also called strip-commercial)
- **Megalopolis:** one large urban area difficult to tell where one city ends and another begins (Boston to Wash. D.C)



# MEGACITIES



- Metropolitan area with more than 10 million people (at least 2,000 people per square km)
- As of 2013, 24 megacities including Tokyo, Delhi and New York
- Most rapid growth in developing countries
- **Shanty towns (slums):** Unplanned developments of crude dwellings on outskirts of a town lacking amenities (1/7 of world population)





# FACTORS CONTRIBUTING TO URBAN SPRAWL

- Automobile ownership (in US 1 car per person of driving age)
- Less expensive land outside of city and easier permits
- Tax laws encourage home ownership
- Local politicians influenced by businesses and industries attracted to newly developed regions
- Planning and policy factors (e.g. difficult to coordinate multiple jurisdictions)
- Local zoning ordinances prohibit mixing of land-use
- Many government policies subsidize decentralized development



# PROBLEMS ASSOCIATED WITH UNPLANNED URBAN GROWTH

- **Transportation problems:** Little thought put into transportation and building corridors leads to more growth (paradox) – never catches up
- **Death of the central city:** <10% work in city center, money spent outside
- **High infrastructure (all physical, social, and economic elements to support a population) and energy costs:**
  - Sewer, water, gas, schools, police etc.
  - Autos inefficient and houses separated from shopping etc
  - Single-family homes require more energy than multifamily





# PROBLEMS WITH UNPLANNED URBAN GROWTH CONTINUED

- **Loss of open space and farmland:** open space usually small fragments, expensive to renovate areas to create green space
- **Air and water pollution:** automobiles pollute but public transport difficult with dispersed populations
  - Most roads, parking lots, etc. impervious = runoff
- **Floodplain (low areas near rivers) problems:** periodic flooding and houses or light industrial instead of open space or recreation. Cost of flood-control structures or repairs is high
  - Floodplain zoning ordinances restrict future building on floodplains

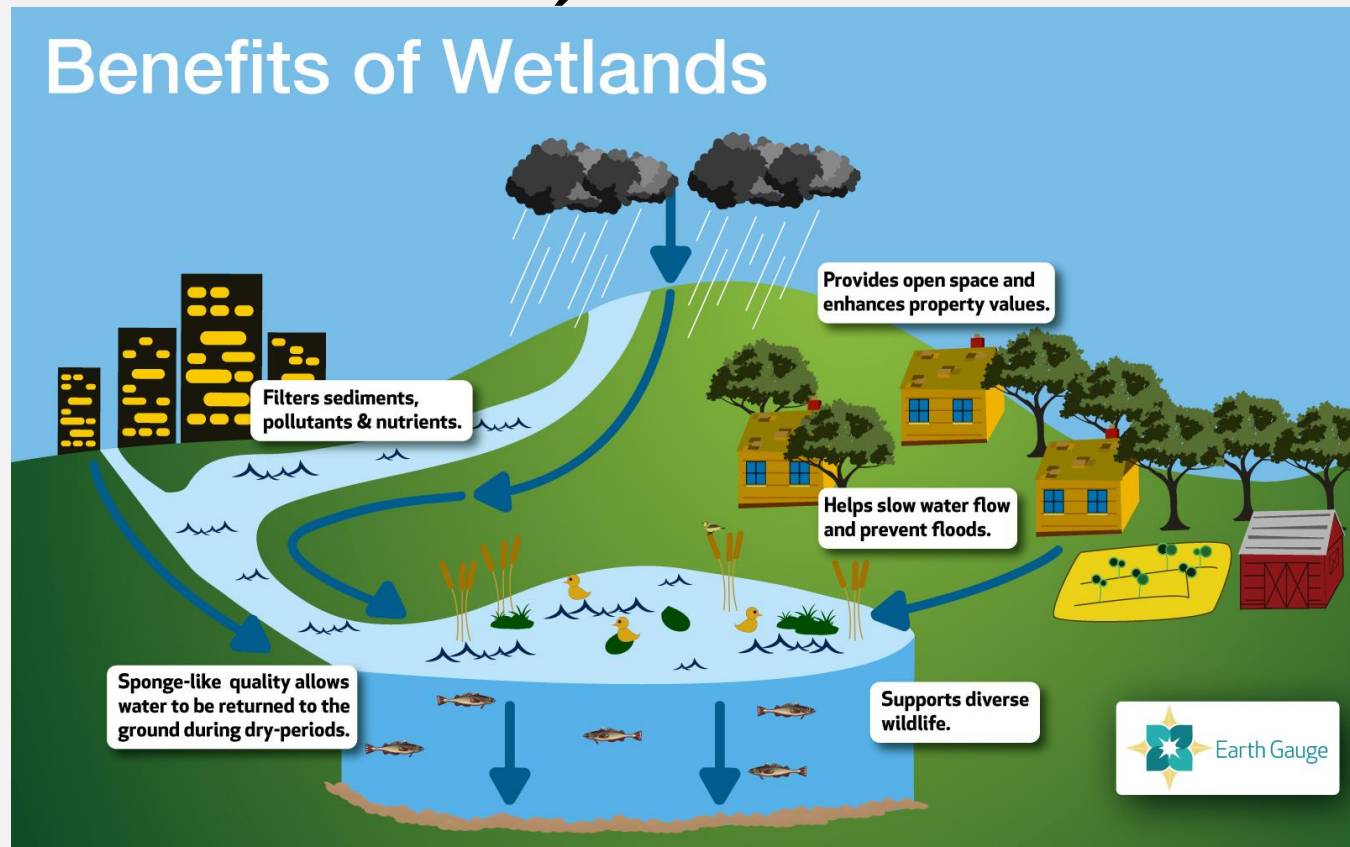


# MORE PROBLEMS ASSOCIATED WITH UNPLANNED URBAN GROWTH



**Wetlands** (areas including swamps, marshes, estuaries and tidal marshes that periodically are covered with water) misuse: most have been drained, filled or used as dumps

- US has lost 53%
- Important areas for reproduction of many animals
- Natural filters
- Protect shorelines from erosion





# EVEN MORE PROBLEMS ASSOCIATED WITH UNPLANNED URBAN GROWTH

- **Geology and resource limitations:**

- *should* consider volcanoes, earthquake faults, hillside stability etc.
- Lack of water (has to be brought in and often involves building dams etc.)

- **Aesthetic Issues:**

- Odors, tastes, sounds, sights etc.
- Examples – dairy farms, highways, airports, junkyards or industry



# LAND-USE PLANNING

- Evaluating needs and wants of the population, characteristics of the land, alternative solutions
- Considerations:
  1. Evaluate geological and biological features
  2. Preserve unique cultural or historic features
  3. Conserve open space and environmental features
  4. Recognize and calculate cost of changes  
(Ex. More houses need more schools)
  5. Plan mixed housing and commercial use  
in proximity (ideal plans allow walking distance)





# LAND USE PLANNING CONTINUED



6. Plan for a variety of transportation options

7. Set limits and require managed growth with compact development patterns

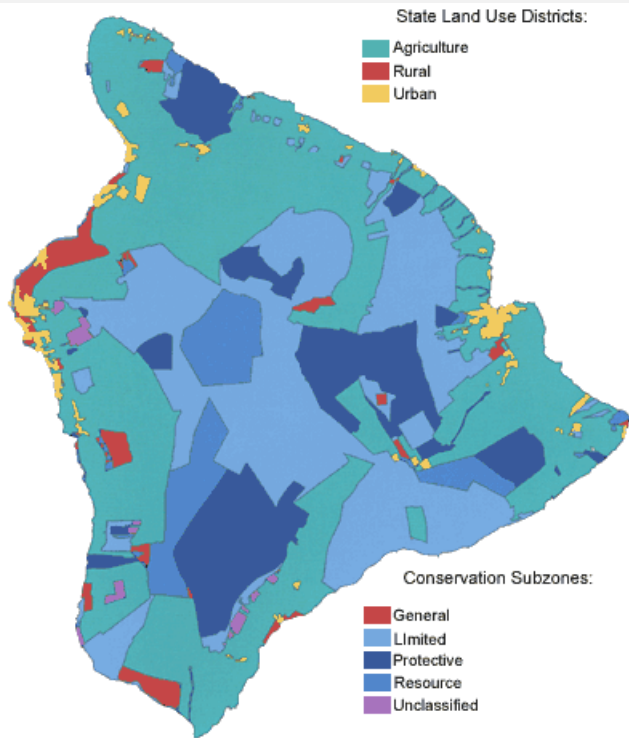
❖ **Urban growth limit**: establishes a boundary within which development can occur

- Stimulates higher density uses of urban land

8. Encourage development where infrastructure exists (and re-uses old buildings)



# ESTABLISHING STATE OR REGIONAL PLANNING AGENCIES



- Encompass resources etc. that cross local political boundaries
- Less likely to duplicate facilities so more efficient (e.g. airports)
- Higher level = more money to plan
- First state-wide program was Hawaii

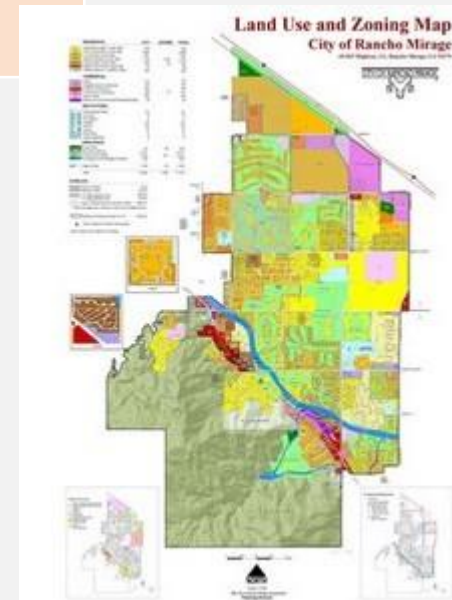


# RESTRICTING USE

- **Zoning:** common type of land-use regulation that designates specific areas within a community for certain kinds of land use.
  - Agricultural, commercial, residential, recreational, and industrial

Positive	Negative
Helps protect historic, scenic, or cultural sites	Single-use zoning segregates use and increases sprawl

- Zoning boards usually lack training and focus on short-term benefit over long-term
- Some on zoning board have ulterior motive (real estate agents, business owners etc.)
- Some communities put a limit on growth overall



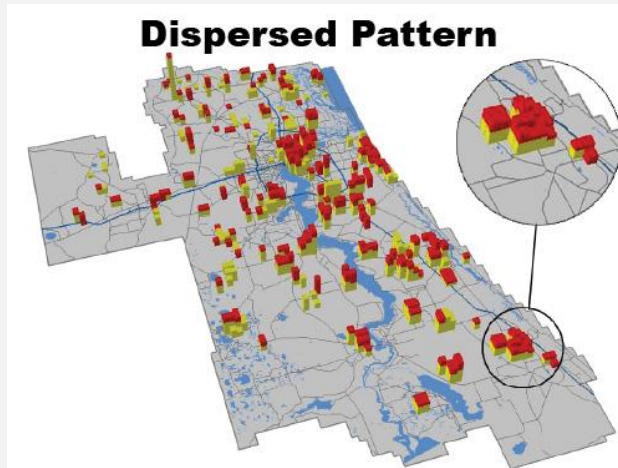
# URBAN TRANSPORTATION PLANNING GOALS

1. Conserve energy and land resources
2. Provide efficient and inexpensive transportation  
(especially for those unable to drive)
3. Provide suburban people efficient commute
4. Reduce urban pollution





# REASONS WHY MASS TRANSPORTATION IN THE US IS UNDERFUNDED AND DIFFICULT TO ESTABLISH



1. Dispersed housing patterns
2. In many smaller cities, automobiles are more convenient
3. Trains and buses are often crowded and uncomfortable during peak hours
4. General perception that mass transit is expensive to build and operate compared to highways and freeways. Difficult to evaluate.

# URBAN OPEN SPACE AND RECREATION PLANNING

- 80% of North Americans live in urban areas
- Some cities lack foresight or funding for open spaces
- Parks (Park and Recreation department), theaters, bowling, zoos etc.
- Nature centers: teaching institutions to learn about natural world





# REDEVELOPMENT OF INNER-CITY AREAS

- **Brownfields:** vacant industrial or commercial sites expensive to clean up or renovate
- Some required by EPA to clean contamination before use
- **Brownfields development:** Degree of clean-up matches intended use

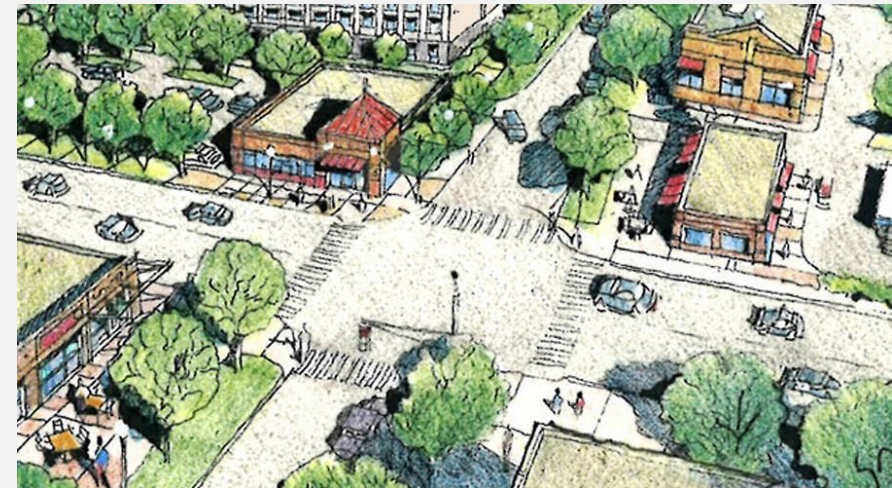


El Paseo Shopping District



# SMART GROWTH URBAN PLANNING

- Reaction to problems of deteriorating central cities and dysfunctional suburban development
- Cultural, economic, environmental and social aspects considered to improve urban livability
- Smart growth guidelines:
  1. Preserve open space, farmland, natural beauty and critical environmental areas
  2. Direct development toward existing urban areas
  3. Compact building design
  4. Range of housing opportunities and choices
  5. Distinctive, attractive communities





## SMART GROWTH GUIDELINES CONTINUED:

1. Mixed land use
2. Walkable neighborhoods
3. Provide transportation choices
4. Encourage community and stakeholder collaboration
5. Make development decisions predictable, fair, and cost effective



# URBAN FARMING IN DETROIT

## Pros

30% of the city is abandoned

Empty residential plots cost more for the city to maintain and generate no revenue

Could supply large proportion of fruits and vegetables for area

American Institute of Architecture says Detroit is well suited to become a pioneer in urban agriculture commercially

Mission State University agreed to invest \$1.5 million

## Cons

Question about soil quality and toxicity. Would need testing and possible topsoil removal

Local properties owners worried about possible relocation

Some locals worried about losing funding for community gardens

Zoning issues (smells, sounds, livestock issues)



# FEDERAL GOVERNMENT LAND-USE ISSUES

- US government owns and manages 30% of US land
- Include military reserves, national parks, Indian reservations, forests and rangelands
- Conflicts in recreational activities arise (e.g. off-road vehicles and backpacking)
- Business and recreational conflicts (e.g. grazing is regulated but political, sometimes overgrazed and conflicts with hikers etc.)

