

Geog 464 Learning Objective Outline

LOO 03 Conventional and Integrative Decision Approaches

- 3.1 How have local governments regulated growth through conventional approaches?
- 3.2 What are growth management approaches; and what is the difference between a top-down and bottom-up approach to growth management?
- 3.3 How can we compare and contrast growth management and sustainability management in terms of competing objectives and generational equity?
- 3.4 Which of the five dimensions for decision situations provides the most leverage for integrating situations?

3.1 How have local governments regulated growth through conventional approaches?

Public sector is the regulator of community activity – standard approaches

- Why regulate? Reduce external effects of people's actions on other people, plants, animals etc.
- Many of 19,000+ municipalities are too small and 3,147 counties or equivalents in U.S. not growing rapidly for "specific growth regulations", but land use law has been in place for a while
- As of 2013, there were 3,007 counties, 64 parishes, 19 organized boroughs, 11 census areas, 41 independent cities, and the District of Columbia for a total of 3,143 counties and county-equivalents in the United States.

Common techniques for conventional regulatory approaches that jurisdictions use across decision situations.

* Planning decision situations

- 1) comprehensive plans: 10 - 20 year horizon, multiple themes in a context (Plate 2.1, Fig 2.1)
- 2) Functional plans: single theme plans with 10 to 20 year horizon, multiple scales and themes
- 3) subdivision regulations and plans: developer plans required when land subdivided (Fig 2.2)

* Improvement programming decision situations

4) capital improvement programs: infrastructures to serve the public e.g., streets, parks, waterways, etc. (Plate 2.2)

* Project implementation decision situations

- 5) zoning ordinances: most common of regulatory instruments to restrict land use (Plate 2.3)

* concerns of them all

- 6) Public participation is a growing challenge for governments

A major problem involves disconnects between/among issues within decision situations due to complexity.

3.2 What are growth management approaches; and what is the difference between a top-down and bottom-up approach to growth management? RUGIS Chapter 2 Section 2.2

What's different in Growth Mgt than conventional regulatory approach?

- More recently communities identify "what seems to be a growth problem as a specific category".
- A way of organizing community efforts to anticipate future development and problems that might occur.

Geog 464 Learning Objective Outline

Approaches/Techniques for growth management stem from **community concerns**:

- Concern: managing the location and character of community expansion,
Technique(s) to address concerns: e.g. urban growth boundary, development policy area, infill-redevelopment, and others
- Concern: preserving natural resources and environmental qualities and features
Technique(s) to address concerns: e.g. land acquisition, conservation zoning, water quality/erosion control regulations, delineating critical areas, and others
- Concern: ensuring efficient provision of community infrastructure
Technique(s) to address concerns: e.g. functional infrastructure plans, facility exaction, impact fees, transportation demand mgt. and others
- Concern: maintaining or creating desirable quality of community life
Technique(s) to address concerns: e.g., design reviews, incentive and performance zoning (bonuses for mixed use and density), historic preservation and others
- Concern: improving economic opportunities and social equity
Technique(s) to address concerns: e.g., economic development incentives, affordable housing programs and others
- Concern: regional and state guidance of community development
Technique(s) to address concerns: e.g., coordination of local planning, development review having regional impact and others

Each of those problems involve(s) a type of “change in a community”. Thus, a geographic information system database as an *inventory of phenomena/features* across space and time is one way of representing a basic understanding of that change. For example, change in land use activity as in residential and commercial development; change in transportation activity as in the mobility freight and people; and change in water resource activity as in the degradation of waterways. These are sample of the growth management concerns that can be addressed by a set of maps for various time periods.

As of 2017 in Washington State, 29 counties and 218 cities (representing 95 percent of the State’s population) are planning under the Growth Management Act (GMA). Remaining ten counties and their cities are planning for resource lands and critical areas only. (Washington State 2006, p. 1) Washington State GMA specifies that a comprehensive plan can be a set of maps and/or a geographic information system. For overview of planning goals and examples of comprehensive plans see the [Municipal Research and Services Center website](#). The GMA goals for planning are as follows.

Summary of Washington State Growth Management Act Goals

cited from the Puget Sound Regional Council’s Vision 2020 / 2030 Plan (now 2040)

- Encourage development in urban areas where public facilities and services exist or can be efficiently provided.
- Reduce urban sprawl.
- Encourage efficient, multimodal transportation systems.
- Provide affordable housing for citizens of all income levels, promote a variety of housing densities and types, and preserve the existing housing stock.
- Promote economic opportunity consistent with the capacities of the state's natural resources and public services and facilities.

Geog 464 Learning Objective Outline

- Respect private property rights.
- Provide timely, fair and predictable permit review processes.
- Conserve and enhance natural resources.
- Retain open space, conserve fish and wildlife habitat, increase access to natural resource lands and water, and provide recreational opportunities.
- Protect the environment and enhance the state's high quality of life.
- Encourage citizen participation in the planning process and ensure coordination among jurisdictions.
- Ensure that public facilities and services are adequate.
- Preserve historic and archaeological resources.

GIS capabilities are needed to address almost all of those goals in a direct manner. Many counties use similar capabilities as in the following.

See Table 2.3 GIS Growth Management Web GIS Services Accessible to Public
(Alchua County 2006b)

Interactive GIS Applications

GeoGreen Mapper - provides access to 40+ GIS datasets on green infrastructure and green living and to important related countywide studies.

GeoPT Mapper - Geo-Track Building Permits and Building Inspections

GeoCE Mapper - Geographic Code Enforcement tracker.

GeoDR Mapper - track approved developments here

Online Map Atlas - County-wide searchable PDF Atlas.

Landscape Evaluation Model - A Landscape Evaluation Decision Support System for Alachua County, Florida.

Data Warehouse - Search, view, download, all of the 60+ datasets which we regularly update and maintain, or connect live to our entire GeoData Library of 90+ layers.

Gallery of Poster Maps - Search, view, print, download, from our gallery of 37+ Poster Maps and corresponding metadata.

Gallery of Comprehensive Plan Maps - Search, view, print, download, from the Gallery of 54+ Maps of the 2001 - 2020 Comprehensive Plan.

Track Building Permits - Track permit back to 1979. Authorized Alachua County users, enter results from Field Inspections and Plan Exams.

Track Zoning, Zoning Variances, and Comprehensive Plan Amendments (CPAs) - Track zoning back to 1980.

Geog 464 Learning Objective Outline

3.3 How can we compare and contrast growth management and sustainability management in terms of competing objectives and generational equity? RUGIS Chapter 2 Section 2.3 Comparing Growth Management and Sustainability Management

Drawing growth management and sustainability management views into focus, we suggest a perspective about “community and regional sustainability”, that makes use of Farrell and Hart’s (1998) description about competing social, economic, and environmental objectives for communities that may or may not be considered together with carrying capacities, and Rees’ (1998) description about the importance of generational equity in sustainable community development

See Figure 2.3 A framework for characterizing community and regional sustainability

	Time frame	
Capacity levels	Intra-generational	Inter-generational
Unspecified expectation	conventional	growth management weak sustainability management
Specified expectation	semi-strong sustainability mgt	strong sustainability management

3.4 Which of the five dimensions for decision situations provides the most leverage for integrating situations?

Table 2.4 Five Dimensions for Integrating Planning, Programming, and Implementation

- (1) functional activities - land use, transportation, and water resources
- (2) community conditions - social, economic, and environmental
- (3) decision process scales - planning, programming, and implementation
- (4) geographic scale - regional, county, city-wide, small area
- (5) temporal scale - strategic, tactical management, operational

The best dimension to use depends on the decision situation at hand, but functional activities and decision process scales are by far the most common basis for linking situations broadly speaking. Community conditions, geographic scale and temporal scale are used for addressing detailed linkages in data. We will consider a number of these dimensions throughout the course.

An integrated, situation assessment can be undertaken by taking those dimensions (within Table 2.4) two at a time (in pairs) as is depicted in Table 2.5. Investigating any two columns or any two rows within the table constitutes an integrated, situation assessment. One can choose an analytic interest that is any two rows and/or columns simultaneously. Such a choice implies that the third, fourth, and fifth dimensions are taken as “control” dimensions, i.e., that is they do not change in the particular situation assessment at hand.