Task 2 Report: Alternative Land Use Management Techniques

June 25, 2001

ALTERNATIVE LAND USE MANAGEMENT TECHNIQUES WITH POTENTIAL APPLICATION IN RURAL GEORGIA

This report identifies, describes, and evaluates new or alternative approaches to land use management being implemented in Georgia and other states that might be used to address land use problems and issues in rural Georgia. The intent of this report (Task 2) is to generate a list and description of alternative land use management techniques and provide a preliminary assessment of whether they should be further studied for inclusion in a model land management system (to be prepared as a subsequent task). Based on this preliminary assessment, the Department of Community Affairs will, with the advice of a legal consultant and a project advisory committee, select those alternatives which will be further researched in Task 3.

Prior to identifying and evaluating alternative land use management techniques, it is important to convey our thoughts on how we approached this task. First, it must be remembered that our target audience is rural cities and counties which have not been willing or able to adopt conventional zoning ordinances. There are many innovative land use management tools that we considered but did not include in this report, because they are much too complex to be implemented by rural local governments in Georgia. Such techniques considered too complex for local governments in rural Georgia include adequate public facilities ordinances, growth boundaries, and transfer of development rights, among others.

Secondly, it is important to note that the scope of this research applies to land use regulations, and hence it excludes discussions of non-regulatory tools such as land trusts, capital improvement programs, fiscal impact analysis, and the like. Third, we have excluded certain variations of zoning, such as planned unit developments and innovative overlay zoning techniques, because these tools are mostly implemented in conjunction with conventional zoning, and here we are limited to the alternatives to conventional zoning. Finally, we have excluded from discussion in this report those land use management approaches and techniques that we have already decided belong in the model land use management code we will develop in task 4 of the Alternatives to Conventional Zoning (ALT Z) project. Such “givens” with regard to the model land use management code include subdivision regulations, sign regulations, and tree protection regulations, among others.

Table 1 identifies the alternative land use management techniques described and assessed in this report and provides recommendations as to whether they should be included in the model land use management system.

Table 1
Summary of Alternative Techniques
and Recommendations

Land Use Management Technique	Applicable to Rural Georgia?	Recommendation
1. Agricultural use notice	Yes	Include in model code.
2. Waiver of right to claim agriculture is a nuisance	Yes	Include in model code.
3. Agricultural and forest buffers	Yes	Include in model code.
4. Rural clustering and conservation subdivisions	Yes	Include model conservation subdivisions ordinance (DCA) in model code
5. Design review and design guidelines	Maybe	Investigate legality and Include in model code.
6. Development agreement	Unlikely	Investigate legality.
7. Development standards and site plan review ordinance	Yes	Include in model code.
8. Public nuisance ordinance	Yes	Include in model code.
9. Performance zoning and performance standards	Maybe with sufficient staff	Include simple performance standards in model code.
10. Specific plans	Remote	Investigate legality.
11. Extraterritorial zoning and subdivision regulation	Yes	Not authorized, consider enabling legislation.
12. Land use guidance system	No	Do not include.
13. Environmental impact assessment	Yes, for large scale development	Investigate legality.
14. Environmental performance standards	Yes	Include in model code.
15. Stand-alone functional land use and environmental ordinances	Yes	Include, as appropriate, in model code.
16. Corridor, interchange, and other partial zoning schemes	Yes	Investigate legality.
17. Use regulations without using zoning districts	Maybe	Investigate legality.
18. Major permit requirement	Yes	Investigate legality.
19. Official map	No	Do not include in model code.
20. Corridor map	Yes	Investigate legality.
21. Land classification	Yes	Consider variations within the context of a land use intensity districting approach.
22. Development allocation system	Remote or unlikely	Do not include in model code.

1. AGRICULTURAL USE NOTICE

Description and purpose. An agricultural use notice is a disclosure instrument that is intended to protect existing, active farming operations from nuisance complaints by adjacent residential neighbors who subsequently locate next to an active farm. This technique is sometimes called a "local right-to-farm ordinance" (Schiffman 1999). A local ordinance can require that a warning of potential odors, dust, chemicals, etc. of farming operations be placed in deeds of lands lying adjacent to active farmlands. This action forewarns prospective land purchasers of the impacts of active farming operations. The agricultural use notice also typically contains an expression of local policy in favor of retaining existing, active farm operations.

Example applications. Schiffman (1999) provides an example application of an agriculture use notice in Butte County, California. The county regulation requires that deeds or contracts of sale conveying property adjacent to or included in an agricultural zone must contain a provision that residents of such property adjacent to an active farming operation "should be prepared to accept such inconvenience or discomfort from normal, necessary farm operations." Furthermore, the Butte County ordinance also requires, as a condition of issuing any building permit, that the owner of land adjoining agricultural property record a statement acknowledging the possible effects of locating adjacent to an active farm operation. When recorded in deeds, the agricultural use notice should appear in the title insurance report as an exception against the land. Real estate agents are also required to disclose this information to prospective purchasers (Schiffman 1999). McHenry County, Illinois, has a similar provision, called an "intensive use affidavit," which is filed to avoid purchasers of nearby property from complaining that they did not know what their farm neighbors were doing (Stokes et al. 1989).

Administrative requirements for implementation. The requirement to provide an agricultural use notice in deeds could be implemented without a building permit system. Enforcement of such a requirement is in a sense, privatized, because it is real estate attorneys and agents that make sure the agricultural use notice is placed in deeds and disclosed as required by the local ordinance. To require the agricultural use notice as a condition of a building permit, a building permit requirement, of course, must be in place. The building permit issue is the enforcement mechanism. The locality implementing the agricultural use notice must be able to identify the active farm operations to which the requirement of an agriculture use notice would apply. Typically, the agricultural use notice is associated with a particular agricultural zoning district. Since zoning is not a "given" in rural Georgia, there needs to be some other mechanism to identify existing agricultural operations. This may be as simple as declaring the entire unincorporated area of a county as an agricultural zone (if it has a predominance of active farming operations). Alternatively, information from the local comprehensive plan might be used (e.g., map of existing land uses, if provided in sufficient detail). Other locations may find the need to develop a map and show specific geographic areas to which the agricultural use notice applies. In the absence of zoning, a map of existing, active agricultural operations is recommended to implement this tool.

Political considerations. In a rural farm economy, an agricultural use notice to protect and maintain active farm operations should be politically acceptable. Only when an area becomes highly suburbanized, with the balance of voter strength swayed from farmers to suburban residents, would the agricultural use notice become politically controversial.

Effectiveness. By attempting to protect active farming operations, the agricultural use notice may have the effect of discouraging scattered exurban and rural residential among areas containing active farms. However, the prospects that an agricultural use notice would significantly deter exurban development and rural scatter is highly unlikely—it is too blunt of an instrument to accomplish that objective. More importantly, the agricultural use notice may avoid disinvestment in active agricultural operations (also called the impermanence syndrome) because of complaints by adjacent property owners, thereby extending the life of the farming economy and agricultural character of a rural area. A simple warning or notice does not preclude a landowner adjacent to active agriculture from bringing a nuisance claim based on dust, odor, and so forth.

As noted by Nelson and Duncan (1995), right-to-farm laws and local applications of such state laws "do not prevent farmers from converting to urban uses." Therefore, the agricultural use notice will not necessarily stop the loss of farmland in a given county.

Legality. Schiffman (1999) notes that the legal effectiveness of this technique is uncertain. To some extent it might be complemented by state right-to-farm laws, which exist in all fifty states (Schiffman 1999) or most of the fifty states (Daniels 1999). As noted by Schiffman (1999), the agricultural use notice "is an attempt to resurrect the concept of first in time, first in right," which used to but no longer controls nuisance law suits.

Application in rural Georgia. Very good. This tool can be adopted independently of conventional zoning and other land use techniques.

2. WAIVER OF RIGHT TO CLAIM AGRICULTURE IS A NUISANCE

Description and purpose. This alternative requires an agricultural use notice, as described above, but goes one step further by requiring that occupants or developers of adjacent lands waive their rights to bring a nuisance claim against a pre-existing active farm operation.

Example application. Forsyth County, Georgia's code goes beyond a simple public notice requirement to prospective landowners and developers adjacent to active farmland. Forsyth County's unified development code establishes an A2 zoning district which includes farming activities which may result in odors, noise, dust, and other effects and which generally are not compatible with adjacent single-family development. Forsyth County's A-2 district requires anyone who is building or developing adjacent to an active farm use to waive their right to file nuisance claims, as indicated in the provision below.

Example code language. "Future developers, builders, or property owners with land adjacent in non-A2 zoning districts shall be provided with a "Notice of A2 Adjacency" at the time of an application for a zoning change of property adjacent to A2, or at the time of an application for a building or occupancy permit for property adjacent to an A2 district. Prior to action on either the zoning change or the issuance of a building or occupancy permit on property abutting land in an A2 zoning district, the applicant therefore shall be required to sign a waiver on a form prepared by the Director which will indicate that the applicant understands that a use is ongoing adjacent to his existing or proposed use which may produce odors, noise, dust, and other effects which may not be

compatible with the applicant's development. Nevertheless, understanding the effects of adjacent A2 uses, the applicant agrees by executing the form to waive any objection to those effects and understands that his zoning and/or his permits are issued and processed in reliance on his agreement not to bring any action asserting that the adjacent A2 use constitutes a nuisance against local governments and adjacent landowners whose property is zoned A2. Any such notice or acknowledgment provided to or executed by a landowner adjoining land zoned A2 shall be a public record." (Forsyth County Unified Development Code, § 15-2.4).

Administrative requirements for implementation. The example application implements this tool within the context of a zoning ordinance. However, as with the simpler agricultural use notice, this tool could be implemented with a building permit system and a map of agricultural lands to which this requirement would apply (see discussion of agricultural use notice, above).

Political considerations. In a rural farm economy, a waiver of rights to bring a nuisance suit against an active farm operation should be politically acceptable. In areas that are highly suburbanized, where suburban residents far outnumber farmers, the waiver requirement might become politically controversial. If made a condition of building permit issuance, applicants may be somewhat reluctant, and perhaps might even complain of such a requirement, but they are likely to agree because their failure to agree to the limitation would result in the denial of their building permit.

Effectiveness. Although it is a sharper instrument than the agricultural use notice, even a waiver of nuisance complaints may offer only limited protection to existing farm operations. If the farm operator changes agricultural practices, he may lose the "pre-existing status" and no longer be protected by a right-to-farm in the case of a nuisance complaint. For instance, a right-to-farm law may not protect a farm operator if he changes from a dairy farm to a hog farm (Daniels 1999). Right-to-farm laws and local applications of them might provide some defense against "nuisances," but they are unlikely to protect the farm operator in cases where agricultural operations "trespass" (with chemical drift, airborne particulates, and odors) onto adjacent properties (Nelson and Duncan 1995).

Legality. It is not known whether the waiver of rights is effective in overcoming nuisance suits. Given that Forsyth County, Georgia, has adopted this requirement, that implies that it has passed legal scrutiny in that county. Noted land use attorney Robert Freilich observes with regard to right-to-farm laws that there was an Iowa Supreme Court decision which found that the "state cannot regulate property so as to insulate users from private nuisance claims without providing for just compensation" (Freilich 1999).

Application in rural Georgia. Good. This tool can be adopted independently of conventional zoning and other land use techniques, if local governments have a building permit requirement and can identify existing agricultural operations to which the requirement would apply.

3. AGRICULTURAL AND FOREST BUFFERS

Description and purpose. This technique requires urban or suburban uses to buffer themselves from farmland or forestland. Alternatively, it could be simply a setback

rather than a buffer. It is intended to separate agricultural (and forest) operations from conflicts with other land uses, thereby protecting them.

Example applications. Schiffman (1999) characterizes experience with agricultural buffers as "limited but increasing." He indicates that the California Coastal Commission requires a 200-foot buffer between developments and commercial agricultural lands. He also indicates that the State of Maine prohibits construction of homes, commercial businesses, and wells within 150 feet of any farm that registers with a town government. Nelson and Duncan (1995) indicate that agriculture/forest buffers can range from a few feet to three miles.

Administrative requirements for implementation. Implementing this tool generally requires at least a building permit, if not a development permit. It is possible that a local government could pass a buffer requirement and then hope that it would be implemented. However, to effectively enforce the requirement, site plans and inspections are needed. Furthermore, the simple example leaves open the question of what constitutes an effective buffer, implying that an ordinance establishing buffers would need additional specificity. There also may be cases where “variances” are needed, or “appeals” from administrative determinations might be required. If different buffer widths or setbacks are established depending on the type or characteristics of use, such an effort requires more extensive time to prepare and administer. Hence, what appears to be a simple requirement of requiring a buffer (or setback) requires many of the supporting provisions of a conventional zoning ordinance (definitions, enforcement provisions, variance and appeal provisions, detailed standards, and so forth).

Political considerations. Reasonable setbacks and/or buffers to protect farm and forest lands should not be politically controversial. However, land that is placed in permanent buffers is not usable by the property owners and this may become a political issue in some communities. As with the agricultural use notice and the waiver of right to nuisance suits, as described above, this tool should be acceptable in areas dominated by a rural farm/forest economy. When more extensive suburban development occurs, the buffer requirement may become more of a political issue. A buffer requirement should be much more politically acceptable than adopting a conventional zoning ordinance.

Effectiveness. Buffers and setbacks have long been used as primary mechanisms for ensuring compatibility between various land uses. The larger the buffer, the greater protection there will be provided for farmlands and forestlands (Nelson and Duncan 1995). In the case of odors, such as those from poultry houses, distances must be extensive to be effective.

Legality. Agricultural buffers are accepted within the context of a zoning ordinance. In other cases, agricultural buffers may be legitimately imposed as conditions of development permit approval. However, it is less clear whether an individual, stand-alone ordinance requiring agricultural buffers, outside the context of a conventional zoning ordinance, would be legal.

Application in rural Georgia. Good. A separate ordinance could be established by a local government that requires buffers between residential developments and farmland and forestland. As noted above, such an ordinance needs to be accompanied by

provisions that resemble conventional zoning ordinance requirements. It requires limited advance planning, but the administrative requirements are significant.

4. RURAL CLUSTERING AND CONSERVATION SUBDIVISIONS

Description and purpose. Cluster development techniques concentrate or group land uses on a portion of a site rather than spreading them evenly throughout the parcel. Clustering results in a transfer of density within a given parcel, such that the gross density or intensity of the parcel is the same, but the net density or intensity of the developed portion of the parcel is greater than would result if the development was evenly distributed on the parcel. The primary purpose of clustering is to protect sensitive environmental areas (e.g., steep slopes, wetlands, etc.) or resource lands (e.g., woodlands, prime agricultural soils, etc.). Other purposes of clustering include the reduction of infrastructure costs (Schiffman 1999).

Example applications. The use of clustering is widespread, and numerous example applications exist. Randall Arendt (1994; 1996) provides numerous examples of conservation subdivisions and rural clustering techniques, respectively. Pivo, Small and Wolfe (1990) also provide illustrations of rural clustering concepts.

Administrative requirements for implementation. A more detailed site plan review process is required to implement rural clustering and conservation subdivision approaches.

Political considerations. Developers are confronted with higher up-front costs to study the development site, plan the development, and provide preliminary engineering and design information. On the other hand, the additional up-front costs are probably small in comparison to the reduced cost of infrastructure gained from clustering versus conventional development. Because clustering results in higher net densities or intensities even if the gross density or intensity is the same on a given site, neighborhood groups and adjacent property owners may object to the resulting net density increase. The resulting product of a rural cluster development is not always what the "market" has in mind—many people who decide to live in rural areas want their own large lot and do not wish to purchase lots and reside in a clustered pattern, even if it results in substantial common open space or other amenities.

Effectiveness. Rural clustering is much more effective in protecting environmentally sensitive areas and resource lands than conventional zoning. Whereas a traditional subdivision layout would include sensitive or resource lands within individual lots, to meet minimum lot sizes, the cluster subdivision approach allows the protection of sensitive or resource lands in common areas. Care must be taken to ensure that the clustering approach results in true benefits with regard to saving land—not just the flood plains and steep slopes that are considered unbuildable by the developer in the first place.

Legality. Because most cluster ordinances are voluntary, there should be no legal question about providing for an option to cluster development on a given site. Mandatory clustering has been used in several rural towns in Maine and Massachusetts (Schiffman 1999).

Applicability in rural Georgia. The rural clustering technique is certainly applicable to rural Georgia. At issue for the ALT Z project is whether additional research on this technique is needed, or whether we can simply incorporate (or refer to) the model conservation subdivisions ordinance being prepared for the DCA Smart Growth Toolkit.

5. DESIGN REVIEW AND DESIGN GUIDELINES

Description and purpose. Design review is a process of reviewing the architecture, aesthetics, and site compatibility of new development within a specifically designated area. Its primary purposes are to achieve architectural harmony and aesthetic compatibility between new and existing development. In some states, especially in Illinois, design review is accomplished by an appearance commission and performance standards are promulgated via an appearance code (Porter 1997).

Example applications. None in rural Georgia. Suburban cities such as Roswell and Alpharetta have implemented design review ordinances. Prior to building or developing, an applicant is required to file design plans that are reviewed by staff and then submitted to a design review board for action. The board usually reviews the application for consistency and compatibility with adopted design guidelines.

A well-known example of an appearance code from Libertyville, Illinois, is published in Mantell, Harper and Propst (1990). This code provides definitions, criteria for appearance, additional criteria for the village's historic area, and provisions for maintenance. The code as it appears in Mantell et al (1990) does not include provisions establishing an appearance commission or provisions regarding administration and enforcement.

Administrative requirements for implementation. Design review requires a fairly elaborate ordinance, and detailed design guidelines are highly recommended. Both of these requirements necessitate professional expertise not often available locally (and perhaps not regionally in Georgia's more rural areas). A building permit system and site plan review are prerequisites. In addition, some professional expertise is needed on the design review board and on the part of the staff administering the ordinance. Design review requires more extensive applications for development—for instance, a typical design review application contains architectural elevations and often color and material samples. It is unlikely that rural local governments will have the necessary expertise on staff, and they may not have a sufficient pool of citizens with the requisite professional experience to serve on a review board.

Political considerations. Design review, which involves some subjective judgments as to the aesthetics of a given development, is not likely to be acceptable in rural communities, unless the district applies to an area that has extensive community support for protection. There are many communities with conventional zoning ordinances that have not implemented design review requirements, suggesting that it is a "step beyond" conventional zoning. Local officials that might be supportive of conventional zoning might not support the regulation of design and aesthetics, except in unusual circumstances. However, the opposite might well be true. Vague guidelines and subjective judgments of board members are two political limitations to this approach (Schiffman 1999).

Effectiveness. If established as a mandatory process, and supported by design guidelines, design review can be effective in ensuring new development conforms to principles of good site planning and architectural compatibility. The legal status of design guidelines is often unclear locally—are they regulations or just guidelines? When guidelines are not mandatory, they may be less consistently enforced and in such cases would be less effective.

Legality. Because community appearance and aesthetics are legitimate bases for local land use regulation (see U.S. Supreme Court cases Berman v Parker (1954) and Metromedia Inc. v City of San Diego (453 US 490, 1981), design review ordinances are generally accepted. In Georgia, there is no enabling legislation that specifically provides for design review (as separate and distinct from the state historic preservation act of 1980). However, design review within the context of a zoning ordinance is exercised in the cities of Roswell and Alpharetta and other places. It is less clear if a local government in Georgia can legally establish a design review district and regulate the architecture and site characteristics of development within such a district, outside the context of a zoning ordinance.

Application in rural Georgia. Possible but unlikely outside the context of other land use regulations such as conventional zoning. Generally, local governments that are unwilling to adopt land use regulations will be even less willing to suggest or dictate architecture and aesthetic aspects of development. Professional expertise is generally lacking in rural areas, if staffs exist at all. However, design review within a specific area could be an appropriate tool to protect a site or area with special character that otherwise has no land use controls.

On the other hand, local governments may not have specific objections to development, so long as it is architecturally and aesthetically compatible with community design objectives. Because there may be some rural local governments that want to guide the aesthetic character of the community but not go so far as adopt a conventional zoning ordinance, this tool may have some applicability in rural Georgia.

6. DEVELOPMENT AGREEMENT

Description and purpose. This tool is a negotiated agreement between a local government and a developer. It usually involves large-scale development that will be phased and constructed over a long period of time. A development agreement is sought by a developer to bring certainty to the local regulations that will govern the development over time. In exchange for agreeing to "lock in" the development regulations for a given development over time, the local government may receive agreement from the developer to install infrastructure or take other actions (Schiffman 1999).

Example application. The state of California's laws specifically authorize local governments to enter into development agreements, as a legislative act approved by ordinance. In Hawaii, development agreements are considered administrative acts (Schiffman 1999). Development agreements indicate the uses that will be permitted, the bulk, intensity and dimensional requirements (height, setbacks, etc.), the time period of the agreement, and provisions for review and termination of the agreement (Schiffman 1999). At least nine states have enacted legislation that enables development agreements between developers and local governments: Arizona, California, Florida,

Hawaii, Louisiana, Nevada, New Jersey, and (to a limited extent) Colorado and Minnesota (Taub 1990).

Administrative requirements for implementation. Development agreements are considered a flexible alternative to conventional land use regulations. The administrative requirements are even more burdensome than those required to administer a conventional zoning ordinance. Additionally, because a development agreement is, by definition, a negotiated instrument, it requires extensive time and some professional expertise in negotiating techniques. Additional paperwork is inherent in a development agreement.

Political considerations. Local residents may not be supportive of the "dealing" and negotiating nature of development agreements, and they may view such a tool as an unknown, risky alternative to conventional zoning regulations. On the other hand, a development agreement is flexible and thereby provides a mechanism for addressing politically controversial issues.

Effectiveness. Development agreements can provide viable alternatives to conventional land use regulatory systems. Because they are negotiated, they may be more effective at addressing infrastructure and neighborhood concerns.

Legality. No enabling authority to adopt development agreements exists in Georgia. A development agreement, whether within or outside the context of conventional zoning, would likely be considered by Georgia's courts to be "contract zoning" which will be declared invalid. See Cross et al. v Hall County (238 Ga 709) (1977). However, as an alternative view, it is not uncommon for local governments to negotiate conditions of zoning, accomplishing much the same thing as a development agreement (though not identical in substance). Conditional zoning is legal in Georgia. Any requirements for developer installation of off-site system improvements (i.e., infrastructure) may run afoul of the Development Impact Fee Act of 1990, although the development agreement as implemented in other states allows localities to receive public improvements and facilities from the developer "in excess of what the law would allow as an incidence of development approval" (Schiffman 1999).

Application in rural Georgia. Because development agreements are typically implemented as alternatives to existing local development regulations, they are unlikely to be appropriate in a "stand alone" context in rural Georgia. However, this tool might be further investigated with regard to its prospects. For instance, could a local government, without conventional zoning, establish a development agreement ordinance that applies to a certain threshold of development (e.g. a subdivision with 100 or more lots, or a commercial structure with 100,000 or more gross square feet of building)?

7. DEVELOPMENT STANDARDS AND SITE PLAN REVIEW ORDINANCE

Description and purpose. Independent of conventional zoning, a local government may adopt standards for various aspects of land development, including requirements for stormwater management and standards for streets and access points. The local ordinance would include standards for land development and require site plans of land developments be prepared by the applicant and reviewed and approved by the staff or agency/commission of local government.

Example applications. Separate ordinances that establish detailed development standards are not frequently found. Often, whatever standards that exist for land development are adopted via conventional zoning ordinances and land subdivision regulations. A problem with the conventional approach is that zoning and subdivision regulations, by themselves, often do not apply to development proposals that do not require rezoning or subdivision. For instance, a development on an already platted lot with appropriate zoning in place may not be required to conform to detailed site development standards for the installation of infrastructure. More sophisticated local government staffs in fast-growing suburban areas and urban areas have adopted development standards ordinances and construction specifications (in addition to zoning and subdivision control ordinances) that apply to all developments, even if they are already zoned and subdivided.

Administrative requirements for implementation. Extensive. Professional engineering and planning expertise is required to prepare, adopt, and implement land development standards and site plan review ordinances. Cities and counties that do not have a planner, building inspector, and city engineer will not have sufficient staff to administer a development standards and site plan review ordinance. Even if the approval process is entirely administrative, the time involved can be extensive as an interdepartmental review team is often created. Furthermore, there usually needs to be an appeal provision and variance procedures where the action of an administrative official can be reviewed and overturned, or the provisions modified, by a Board of Appeals or the governing body. Such requirements add to the complexity of this tool.

Political considerations. Rural local governments that do not wish to adopt conventional zoning may find this to be a more politically acceptable approach. A development standards and site plan review ordinance does not place limitations on what uses can go where, it merely establishes the “ground rules” for developments, regardless of type of land use and location. Smaller developments can be exempted from the review requirements of the ordinance so as not to unduly burden small developments. Whether to require or allow public input to the site planning process is a political (as well as legal) question. Generally, the site plan review process is considered administrative with no public input or hearing procedure. Because developers know the rules and can gain approval in a reasonable amount of time if they comply with the rules, they should not be opposed to such requirements if they are reasonable. When development standards are excessive and unduly costly without an apparent public benefit, opposition is more frequent.

Effectiveness. Interviews with administrators of land use codes in Wilkes County and Burke County (which resemble this tool) reveal that long-term community goals may be sacrificed for the benefits of an easier day-to-day enforcement of the code (Ndubisi

1992). Because such a system does not regulate the location of specific land uses, it is ineffective at meeting the objectives of conventional zoning.

Legality. Although there is no specific enabling legislation to adopt development standards and a site plan review ordinance, it seems that the adoption of construction specifications and development standards, along with requirements to submit a site plan for approval, is legitimately within the scope of local government police powers.

Application in rural Georgia. Reasonably good. Rural cities and counties that are unable or unwilling to adopt a conventional zoning ordinance could establish basic development standards and enforce them through a site plan review ordinance. However, rural local governments generally do not have the staff time and expertise needed to implement development standards and site plan review ordinances. Regional and interlocal approaches to sharing staff and adopting consistent development standards would go a long way to making this approach more feasible for implementation in Georgia's rural areas.

8. PUBLIC NUISANCE ORDINANCE

Description and purpose. This tool is intended to protect citizens of a jurisdiction against offensive nuisances, such as animals, abandoned vehicles, poor property maintenance, and so forth. Common law generally allows a private individual to bring a nuisance claim to court. The difference with a nuisance ordinance is that certain conditions would be declared a "public" nuisance, and the local government, rather than a private individual, would be responsible for enforcing the ordinance and seeing that the nuisance is abated.

Example application. The Town of Erwin, North Carolina, adopted a nuisance abatement program and ordinance in 1986. The town's program and ordinance have been distributed by the International City/County Management Association as a model for other local governments to consider.

Administrative requirements for implementation. A public nuisance ordinance could be administered by a variety of personnel in rural local governments: a town clerk, a single code enforcement officer, an environmental health officer, or even a public safety (police) officer. A public nuisance ordinance does not require specific expertise. However, it is more "enforcement oriented" than a conventional zoning ordinance and thus requires civil court proceedings that involve considerable time. An appropriate level of enforcement of a public nuisance ordinance would necessitate additional staffing in most rural local governments. Few existing staffs, such as the environmental health officer or police, have unencumbered resources and additional time to enforce a public nuisance ordinance.

Political considerations. If consistently enforced, there should be no major political constraints to the implementation of a public nuisance ordinance in rural areas. What constitutes a "public nuisance" is subject to local determination. The ordinance should be prepared and adopted only after public participation and an identification of specific local needs and desires.

Effectiveness. Effectiveness is limited to those activities that are defined as public nuisances, and effectiveness is only as good as the enforcement of the nuisance ordinance.

Legality. The regulation of nuisances is considered to be within the scope of local government police powers. City charters often specifically provide for such authority, and nuisance abatement is reasonably implied as a home rule power.

Applicability in rural Georgia. Very good. Nuisance ordinances address some of the more pressing land use issues that conventional zoning ordinances also regulate. For instance, provisions for junked vehicles could be declared a nuisance and regulated by a nuisance ordinance, as opposed to regulating such uses through a conventional zoning ordinance. A variety of local government staff can be assigned responsibilities for implementation.

9. PERFORMANCE ZONING AND PERFORMANCE STANDARDS

Description and purpose. Performance zoning or "standards" is the most often-cited alternative to conventional zoning. Unlike conventional zoning, performance-based approaches prescribe a set of standards against which a particular development proposal is measured (Ndubisi 1992). Ironically, more often than not performance zoning relies on a "zoning district and map" approach, although it typically employs much fewer "zones" than does a conventional zoning approach. At the core of the concept of performance zoning are various standards, such as density limitations, an open space ratio, and an impervious surface ratio. The basis behind a performance standards approach is that uses should not be prohibited outright, if they can meet criteria designed to mitigate the effects of such uses. Land uses are separated only to the degree that they create negative impacts on neighbors (Schiffman 1999).

Example applications. There are numerous examples nationally of the implementation of performance zoning and performance standards. Small cities such as Bay City, Oregon, and Bath Township, Michigan, have implemented performance zoning. In Bay City, there are three intensity zones: high (commercial), moderate (residential), and low (rural) (Schiffman 1999). In Georgia, the Georgia Mountains Regional Development Center (GMRDC) prepared a performance zoning ordinance for Demorest, Georgia, based on the Bay City model. GMRDC also prepared a more flexible, limited district, performance-based zoning ordinance for Habersham County, Georgia. Regionally, the Georgia Mountains Planning and Development Commission prepared "land management performance standards" in 1979. Auburn, Alabama, prepared and adopted a performance zoning ordinance in 1983 and 1984 (Juster 1997). Research on the topic indicates that most local governments that implement performance zoning actually add performance standards to conventional zoning ordinances rather than substituting performance-based approaches for conventional zoning schemes (Porter 1998).

Administrative requirements for implementation. Research on this question is mixed. The general consensus is that performance-based approaches are more complex and time-consuming to administer than conventional zoning ordinances, because they involve a case-by-case consideration of every development proposal. However, Ndubisi (1992) notes that Bath Township, Michigan, (population 6,000) has implemented a simple performance standards approach in conjunction with conventional zoning with only two planners, by keeping the standards simple. The complexity of

administration depends, of course, on the complexity of the performance standards. Hence, various degrees of skill may be necessary to administer performance standards (Schiffman 1999). A performance standards approach that does not utilize zones could be easier to administer, if the standards are kept relatively simple. A performance zoning approach, one that involves even a few districts, may be almost as time-consuming as a conventional zoning approach, because there are still district map amendments to process.

Political considerations. Due to the added flexibility in the location of land uses, a performance standards approach may be more acceptable to local elected officials than conventional zoning ordinances. This is especially the case if the "districts and map" approach is not used. Research on performance zoning shows that the citizen populace is less comfortable with performance zoning approaches due to the uncertainty involved and an inability to grasp how the provisions will protect residential areas. Developers might react positively or negatively to performance approaches—on the one hand they have more flexibility, but on the other hand, they often have more rigorous and time consuming review schedules to meet. If subjective judgment is involved in the administration of performance standards, that may give rise to complaints of unfairness.

Effectiveness. Due to uncertainty involved in what land uses can be established on various sites, performance standards approaches are considered to be less effective than conventional zoning. Effectiveness is increased with a "district and map" scheme, however simple that may be.

Legality. Because the Georgia General Assembly via the zoning procedures law has defined "zoning" as containing zoning districts and a map, the legal question exists as to whether a local ordinance adopting performance standards for development and which does not regulate according to zoning districts and a map would be authorized under the constitutional permission for city and county zoning. Although no specific enabling legislation currently exists to authorize local governments to adopt performance zoning and performance standards, and even if performance standards are not "zoning" under the interpretation of state statute (and therefore not constitutionally authorized), this tool is considered to be within the scope of local government police powers.

Applicability in rural Georgia. A performance zoning ordinance, or just a performance standards approach, should be more acceptable in rural communities than conventional zoning. Most local governments lack the staff needed to administer a performance zoning ordinance or performance standards ordinance.

10. SPECIFIC PLANS

Description and purpose. Specific plans are like a detailed neighborhood or subarea plan, but with one major difference. Specific plans, upon their adoption, are enforceable and implemented as land use regulations. A specific plan, which applies to a specific geographic area, is typically adopted as a part of the local government's comprehensive plan, but it also contains specific implementation measures, including not just land use regulations and design guidelines, but also capital improvement programs (Schiffman 1999). Developments that are consistent with an adopted specific plan are not subject to any additional discretionary reviews (i.e., rezoning, platting, etc.).

Example applications. Specific plans are common in California, where more than 160 cities and counties have used this tool. Oregon has also promoted this tool as an innovative growth management device.

Administrative requirements for implementation. A specific plan requires an extensive amount of time to prepare, and professional planning expertise is required. Property owners within the geographic area of the specific plan are engaged as stakeholders. Specific plans also may require the assistance of design professionals because they often provide guidelines for architecture and site planning. Furthermore, because specific plans often involve facility planning and a capital improvement program that accompany the plan, engineering expertise is often required. Once a specific plan is prepared, and an ordinance is put into place to enforce the plan, all that is required for development approval is a showing of consistency (through typical plan submittals). What is less clear is how local governments would treat development proposals that are inconsistent with the specific plan.

Political considerations. Because the specific plan process engages stakeholders, their "buy in" can generally be assumed. Because developers do not have to file rezoning applications and seek other discretionary approvals if their project is consistent with the specific plan, they are likely to favor such an approach. Interest in the outcomes of the specific plan and the resulting development process is likely to be limited to the geographic area of the specific plan itself.

Effectiveness. Due to involvement of stakeholders, and the detail involved in preparing specific plans, they are considered to be very effective at promoting the characteristics of development that are desired by the community.

Legality. Specific plans as described above and implemented in California are not authorized in Georgia, though they are not specifically prohibited either. Because local comprehensive plans in Georgia do not have substantial legal status, it is questionable whether a given portion of a comprehensive plan could serve as a regulatory device, even if a separate implementing ordinance was adopted by the local government to that effect. Also, the question as to whether a local government can adopt land use regulations on a less-than-comprehensive basis (i.e., covering part but not all of its land area) is a key to the potential implementation of this tool.

Applicability in rural Georgia. Possibilities exist but they appear remote. A variation of the California approach may be appropriate in rural Georgia. A local government might have a specific geographic area within which it wants to regulate development and provide detailed guidance. In that event, a specific plan with an implementing ordinance might be appropriate. However, specific plans are in almost all instances implemented as an addition (and alternative) to conventional zoning regulations. Therefore, it is unlikely to be used as a stand alone land use management tool.

11. EXTRATERRITORIAL ZONING AND SUBDIVISION REGULATION

Description and purpose. This tool permits cities to exercise zoning and subdivision regulatory authority within an unincorporated area adjacent to the municipal boundaries. The purpose is to allow the city, when the county does not have appropriate land use regulations in place, to regulate development that spills over into the urban fringe.

Example applications. North Carolina statutes provide that "any city may exercise these [zoning and subdivision control] powers within a defined area extending not more than one mile beyond its limits. With the approval of the board or boards of county commissioners with jurisdiction over the area, a city of 10,000 or more population but less than 25,000 may exercise these powers over an area extending not more than two miles beyond its limits and a city of 25,000 or more population may exercise these powers over an area extending not more than three miles beyond its limits" (North Carolina General Statutes § 160A-360, Territorial Jurisdiction).

Administrative requirements for implementation. For local governments that already exercise conventional zoning, extending the geographic area to which its land use regulations apply would add only marginally or incrementally to existing administrative burdens. The local government exercising extraterritorial jurisdiction would need, from a practical if not legal standpoint, to have the extraterritorial area included within its comprehensive plan (land use, natural constraints, public facilities, etc.).

Political considerations. Counties would likely oppose an effort to enable extraterritorial zoning in Georgia. Similarly, any enabling statute that allowed counties with zoning ordinances to exercise those powers within cities would likely receive opposition from cities. However, it must be underscored that the authority would exist only in the absence of the exercise of that power by the subject local government. In other words, a county that does not wish a city to exercise extraterritorial jurisdiction can adopt regulations themselves. Therefore, extraterritorial jurisdiction should not be viewed as a taking away of authority from a local government, but rather, a substitute in the event the local government fails to adopt regulations. Still, the local government may resent being forced into such a situation of adopting land use regulations just to preempt another local government from exercising extraterritorial jurisdiction.

Effectiveness. Unknown without further research.

Legality. A previous legal analysis of innovative development controls and their applicability in Georgia found that the state's planning enabling legislation authorized extraterritorial zoning (Public Research and Management, Inc. 1975). The 1957 act provides that unincorporated areas adjacent to municipalities may be added to and included under the jurisdiction of a municipal planning commission for the preparation and administration of zoning ordinances and land subdivision regulations and official maps if the governing bodies of the respective municipality and county mutually agree upon the boundaries of such area, procedures for joint action thereon, the regulations applying to the area and equitable representation on the municipal planning commission and board of zoning appeals. Formal agreement by the governing bodies involved is required. However, the 1957 enabling legislation no longer exists in Georgia. State planning enabling legislation would be needed to authorize cities to exercise extraterritorial powers.

Applicability in rural Georgia. Without state enabling legislation, this tool could not be used. However, it appears to have much potential to address land use problems outside the jurisdiction of cities. It could theoretically work in reverse as well, where a small city that does not exercise zoning can have the county's regulation (if adopted) apply inside city limits (e.g., the City of Homer in Banks County). Political constraints loom large, although the benefits of extraterritorial zoning may outweigh parochial concerns.

12. LAND USE GUIDANCE SYSTEM

Description and purpose. This term is synonymous with the approach used in Hardin County, Kentucky. It connotes a land use regulatory program that does not involve conventional zoning at all. Rather, a land use guidance system combines a rating system, a compatibility assessment, and a plan assessment.

Example applications. In addition to Hardin County, Kentucky, Ndubisi (1992) notes that Bedford County, Virginia has adopted a similar land use guidance system; he includes a summary of Bedford County's land use guidance system in an appendix. Another example of a point system is Breckenridge, Colorado. Ndubisi (1992) notes that Oconee County considered a proposal for a land use guidance system in the early 1990s, and that "less sophisticated variations" called "land development codes" have been adopted in Burke and Wilkes Counties in Georgia. Ndubisi notes that the latter are essentially a combination of subdivision regulations, performance standards, mobile home regulations, flood hazard protection, erosion and sedimentation control, and access control. In this sense, Ndubisi is grouping within the term "land use guidance system" certain land development codes that do not resemble Hardin County's approach but which "demonstrate an uncomplicated method for regulating land development in a small rural county that has maintained a steady population over the past ten years."

Administrative requirements for implementation. Exner and Sawchuk (1996) have provided one of the best available assessments of the administrative complexities of performance-based systems including Hardin County's land use guidance system. The excerpt below provides their assessment of the administrative requirements of performance-based models of land use regulation.

"In the feasibility assessment, town administrators and planners were less enthusiastic about the performance-based model than were other respondents. Their concerns seemed to be with a number of factors. One was the feeling by town administrators that a performance-based system could not be implemented or operated within existing town budgets. They also felt that this approach would result in higher legal and professional costs. Town administrators were worried about more work that would be generated by the performance model. This would be the result of having to provide more education, more site inspections and greater public involvement. Finally, town administrators and planners were concerned about the greater risk and uncertainty associated with the performance-based approach. This would include such worries as measurement and enforcement of compliance, resolving conflicts, and avoiding and defending themselves from legal challenges" (Exner and Sawchuk 1996).

Ndubisi (1992) finds that performance standards are not as time consuming to administer as conventional zoning, but that the review process takes time and expertise that requires a "break in" period. On the other hand, the more simple approach used in

Wilkes County, which combines subdivision regulations with performance requirements, has been effectively administered by a building inspector (Ndubisi 1992).

Political considerations. Because land development guidance systems and land development codes are more flexible and simple, they are reportedly easy to communicate to developers and property owners. However, because property owners cannot be sure what gets built next to them, that uncertainty may lead to political opposition (Ndubisi 1992).

Effectiveness. Interviews with code administrators in Wilkes County and Burke County reveal that long-term community goals may be sacrificed for the benefits of an easier day-to-day enforcement of the code (Ndubisi 1992). Dekalb County reportedly investigated a point system approach but discarded it because "they found that accumulation of points in minor areas might offset irreversible damage in some other area and permit developments which would not be in the long-range interests of the community" (Georgia Mountains Planning and Development Commission 1979).

Legality. The Hardin County, Kentucky, system no longer exists, as a major revamping of the process was undertaken in 1993-1994 and adopted in 1995 because of legal challenges which found the system lacking. A court also found that because the "compatibility meeting" formed a mandatory part of the approved permit, the municipality could not require a developer to submit to the will of his neighbors.

Applicability in rural Georgia. The land use guidance system employed by Hardin County, Kentucky, is not considered appropriate for application in rural Georgia, due to legal limitations, administrative complexities, and a potential lack of political acceptance. However, a much simplified point system may have some merit in rural Georgia and should therefore be included in the model code.

13. ENVIRONMENTAL IMPACT ASSESSMENT

Description and purpose. This tool is used to evaluate proposed land uses in specific locations. It usually focuses on physical aspects of development and their impacts on the environment, but impact assessments can also consider community and social impacts. Environmental impact assessment provides a basis for making informed decisions on likely beneficial or harmful impacts of development proposals (Ndubisi 1992).

Example applications. Cazenovia, New York, requires local environmental impact assessments for certain types of development, including measures for avoiding, reducing, or mitigating adverse environmental consequences (Ndubisi 1992). Certain states, like California and Washington, have state environmental policy acts that require local governments to implement environmental impact assessments prior to any significant development proposals.

Administrative requirements for implementation. Impact assessment requirements usually place the burden on the developer to submit information about environmental impacts. Hence, the initial burden is on the developer. However, implementing an environmental impact assessment ordinance would necessitate staff with professional qualifications to review developers' assessments, make determinations of sufficiency, and suggest and approve environmental mitigation measures. Rural local governments

do not have qualified staffs to implement this tool, so it would require some other arrangement such as a multi-jurisdictional shared staff.

Political considerations. Local governments that cannot accept conventional zoning as a tool may be more accepting of environmental analysis and mitigation via an environmental impact assessment ordinance. As long as small development projects are exempted from the impact assessment requirements, the general public and developers may be willing to accept the additional costs and time involved in implementing such an ordinance.

Effectiveness. Because an environmental impact assessment ordinance focuses review at the stage of a proposed development application, it is likely to result in a more complete, professional assessment of likely environmental impacts than would occur with a conventional zoning system.

Legality. Ndubisi (1992) finds that, although very few communities in Georgia use local impact assessment as a tool for guiding community growth, there may be some legislative precedent in the passage of the Georgia Environmental Policy Act (1991). He argues that this state law provides a foundation to build upon in formally employing environmental impact assessments as a growth management tool. A comprehensive plan prepared pursuant to the vital areas purpose statements in state law may be sufficient defense for local enactment of environmental impact assessment ordinances.

Applicability in rural Georgia. Good, especially for larger scale development proposals, if the staffing obstacle can be overcome through a multi-jurisdictional staff sharing arrangement.

14. ENVIRONMENTAL PERFORMANCE STANDARDS

Description and purpose. Environmental performance standards are designed to ensure that sensitive ecological processes continue to operate, no mater what type of use occupies the land. They focus on how the land functions rather than on how the land is used. They utilize the natural characteristics of the land as a prime determinant of land use and are often referred to as using a "carrying capacity" approach (Georgia Mountains Planning and Development Commission 1979).

Example applications. Environmental performance measures are difficult to write, because they require rather precise understanding of how the land functions. As a result, there are few example applications. Schiffman (1999) provides example applications of hillside/slope zoning and stream/creek zoning. Hillside/slope zoning can address, through performance standards, the protection of views, allowable densities, runoff control measures, control of cuts and grading, and other aspects of development. For example, Anderson, California, has a slopes district ordinance that establishes minimum lot sizes and maximum percentages of lots that may be covered based on the maximum slope of the building site. A manual on preparing and implementing environmental performance standards was prepared in 1975 (Thurow, Toner and Erley 1975). The Georgia Mountains Planning and Development Commission prepared "land management performance standards" in 1979 which focus on environmental protection.

Administrative requirements for implementation. Reports from experts, such as a geologist or soil scientist, are needed for certain environmental performance standards

such as hillside/slope zoning. Compliance must be shown and mitigation measures proposed and approved. This takes professional competence both to propose and to review and approve developments subject to environmental performance standards. Once standards are in place, prospective developers can be required to collect the information needed for staff or elected officials to assess compliance with them (Schiffman 1999).

Political considerations. Unknown without further study. However, resource saving regulations place additional restrictions on what individuals can do with their private property. Development interests, however, have been supportive of certain nontraditional tools such as performance standards (Schiffman 1999).

Effectiveness. Unknown without further study.

Legality. Schiffman (1999) notes that performance controls are accepted, and that if challenged they will most likely be upheld if they have been properly drafted and adequate reasons have been provided to justify them.

Applicability in rural Georgia. Environmental performance standards hold promise in rural Georgia, if multi-jurisdictional staffing can be arranged and if the standards can be written as simply as possible.

15. STAND-ALONE FUNCTIONAL LAND USE AND ENVIRONMENTAL ORDINANCES

Description and purpose. In contrast to producing a comprehensive land development code containing zoning, subdivision regulations, and environmental protection measures in one (or only a few) documents, rural local governments might find the need or desire to adopt individual, stand-alone, ordinances that deal with specific land use or environmental issues. For example, in our Task 1 report, we noted that several rural local governments have adopted or intend to adopt mobile/manufactured home ordinances. That is one topic we have already planned to include in the model land use management system. There are numerous other examples (see subsection below), and the purposes of these individual ordinances vary. However, all of the examples cited are within the context of land use regulation or environmental land use regulation.

Example applications. The Georgia Department of Community Affairs (not dated) has produced model, stand-alone ordinances for protecting water supply watersheds and groundwater recharge areas. Frank Jenkins has worked with Floyd County in the past to develop a stand-alone ordinance dealing specifically with quarries as a land use issue. Numerous case studies of stand-alone ordinances are presented in Mantell et al. (1990), including a freshwater wetlands and drainage ordinance in Yorktown, New York, a wildlife protection bylaw in Falmouth, Massachusetts, and a mountain view ordinance in Denver, Colorado.

Administrative requirements for implementation. The requirements to prepare and administer stand-alone functional ordinances depend, of course, on the content and complexity of each individual ordinance. Therefore, generalizations cannot be made here.

Political considerations. Because conventional zoning is comprehensive in nature, it is often unpalatable in rural areas. In contrast, functional stand-alone ordinances may provide local elected officials with the opportunity to address specific concerns for which there is consensus to take action.

Effectiveness. Due to their more detailed attention to specific land use or environmental problems and issues, stand-alone ordinances are likely to be very effective in addressing specific problems and issues.

Legality. Individual, stand-alone ordinances to protect the environment should be legal because of local governments' authorization to implement their land use plans and because of the specific state constitutional and statutory authority to protect vital areas. In addition, various stand-alone ordinances should be considered legitimate within the context of local government police powers and home rule authority.

Applicability in rural Georgia. Very good. Stand-alone ordinance contents should be included, as appropriate, in the model land use management system.

16. CORRIDOR, INTERCHANGE AND OTHER PARTIAL ZONING SCHEMES

Description and purpose. This tool is a less-than-comprehensive zoning ordinance to regulate specifically designated areas such as a highway corridor, a highway interchange, a river corridor, or other subarea of a jurisdiction. The purpose of this tool would be to establish zoning in a specific geographic area of a county because land use controls are needed there but are not necessary or politically acceptable in other portions of the jurisdiction.

Example applications. There are no known examples of partial zoning schemes in Georgia. However, there are examples in western states where zoning has been adopted for an urban area or other portion of a jurisdiction that is under significant development pressure. For example, Cowlitz County, Washington, has a zoning ordinance that applies to an urbanized area surrounding the cities of Longview and Kelso, but the vast majority of the county (which is mostly private forestland) remains unzoned. Similarly, Gallatin County, Montana, has developed separate zoning ordinances for portions of the county experiencing resort development, while the remainder of the county is unzoned.

Administrative requirements for implementation. Partial zoning schemes require virtually the same type of expertise to prepare and administer as comprehensive, conventional zoning ordinances, albeit with a smaller workload due to the reduced scale of geography.

Political considerations. A rural county may have concerns about development only in one particular portion of the county. If a partial zoning scheme is legally permitted (see discussion below under "legality"), it may be politically acceptable for the local government to adopt this type of tool. The alternative, in many instances, would be no land use regulations at all.

Effectiveness. Unknown without further study. However, if development pressures are focused in one major area that is covered by a partial zoning scheme, the net result of a

partial zoning scheme may be equal in its effectiveness to a comprehensive, conventional zoning ordinance.

Legality. Unknown. The concept of zoning part of a jurisdiction while leaving the remainder unzoned may violate past precedents and legal principles that "zoning must be done in accordance with a comprehensive plan." However, the phrase "in accordance with a comprehensive plan," which has its origins in the Standard State Zoning Enabling Act, has never been precisely defined and has always been subject to debate among planners and lawyers. Therefore, additional legal research is needed.

Applicability in rural Georgia. Very good. There are several instances where portions of counties are ripe for land use regulations, but the remainder of the county is too slow-growing to justify being subjected to a comprehensive, conventional zoning ordinance.

17. USE REGULATIONS WITHOUT USING ZONING DISTRICTS

Description and purpose. This alternative would establish various regulations for specific uses, but the location of such uses would not be restricted by zoning district. This alternative is similar to the alternative of adopting stand-alone, functional ordinances for specific land uses, but it would apply to multiple specific uses as determined appropriate by the local governing body.

Example applications. There are no known example applications in Georgia or elsewhere.

Administrative requirements for implementation. This alternative would require a building permit and development permit system to be in place prior to or concurrent with implementation. It would be simpler to administer than a conventional zoning ordinance, because it would not involve the processing of applications for rezoning since there would be no zoning districts.

Political considerations. By selecting certain land uses for regulation but possibly excluding others, such an approach may be subject to criticism that various users are being singled out for regulation while others remain unregulated.

Effectiveness. Unknown, since there are no known examples.

Legality. Unknown. While the regulation of land uses by zoning district is clearly legal, using a land use regulatory scheme that does not establish zoning districts has not been legally tested. It is arguably similar to a performance standards approach which does not use a zoning map. However, it is much different from a performance standards approach in that it is based on the regulation of specific uses. Additional legal research is recommended.

Applicability in rural Georgia. This alternative may have merit in rural Georgia, because only those uses that raise concern locally could be addressed in the ordinance. For instance, a local government that wants to address gas stations, retail centers, and industrial uses could develop land use standards for just those uses and leave others unregulated. Due to this flexibility, it appears that it may be applicable in rural Georgia, subject to additional legal research.

18. MAJOR PERMIT REQUIREMENT

Description and purpose. This alternative is a modification of Vermont's Act 250 (adopted in 1970) permitting requirements. It would establish a local permit requirement for certain types of development. Rather than have such permits considered and acted upon by a regional commission, as is the case in Vermont, this alternative suggests that cities and counties could be the permit authority.

Example applications. Vermont's Act 250 establishes a permit requirement for virtually any development involving a "greater than local" impact. All housing projects with ten or more units, all subdivision proposals with ten or more lots, and commercial or industrial projects involving more than one acre in towns without zoning regulations, are among the types of development covered by Act 250 permit requirements. Permit requirements do not extend to farming and forestry activities.

Administrative requirements for implementation. While the locality could implement the permit process, there is likely going to be a need for an appeal procedure. Vermont administers the Act 250 permit requirements on a regional basis. Particularly complex permit applications require more expertise to administer. Adequate staffing has been an issue with Act 250 permit requirements (DeGrove 1984). The administrative requirements of a major permit ordinance would be similar to the "development standards and site plan review ordinance" alternative described above.

Political considerations. By exempting small scale developments and agricultural and forestry activities, this approach may be politically acceptable in rural communities. There is consensus in Vermont that the citizen-based approach to district environmental commissions (reviewers of Act 250 permit applications) "is one of the outstanding strong points of the law" (DeGrove 1984).

Effectiveness. In Vermont, very few Act 250 permits have been denied, but approvals have been made mostly with substantial conditions attached. The greatest problem with Act 250 implementation has been the failure to monitor and enforce permit conditions. Some believe that more detailed regulations are needed to ensure standard treatment of projects across the state (DeGrove 1984).

Little empirical evidence exists regarding whether Vermont's Act 250 is working. The law reportedly is having difficulty in achieving its main goal of mitigating negative environmental effects of development. Act 250 is aimed at large-scale development and, as a result, it allows small-scale subdivisions to escape review. The law also unintentionally encourages large lot subdivisions (with lots of ten acres or more in size) which threaten the future of farm and forestry operations. The law has not stemmed building activity or land sales to out-of-state residents. The law seems to have improved the quality of large scale development, however (Daniels and Lapping 1984).

Legality. At first glance, it does not appear that there would be any major legal obstacles to a county establishing a permit requirement for selected types of development and then subjecting developments to conditions of approval. However, the advice of a land use attorney is needed.

Applicability in rural Georgia. Good, subject to review of legality. Rural local governments probably do not have existing staffs that can administer such a

requirement, and regional or multi-county staff sharing arrangements would be needed in most cases.

19. OFFICIAL MAP

Description and purpose. The official map is not to be confused with the term, "official zoning map." They are separate and distinct terms. An official map is a map specifying the location and extent of future lands that the local government needs for public purposes. It provides more or less exact boundaries where the community intends to purchase land for streets and other facilities. An official map allows local governments to reserve designated land areas for future public improvements. It is intended to minimize indiscriminate construction of buildings and utilities that may be incompatible with plans for future public improvement activities (Ndubisi 1992). It is adopted by the local governing body to put the public on notice of the local government's intent to eventually "take" or acquire and use such lands designated on the official map for public purposes. An official map is a "regulatory" tool, in that it prevents development within lands dedicated for public purposes, subject to constitutional limitations (see legality) (American Planning Association 1998).

Official maps can show parks, utility corridors, fire station locations, school sites, and virtually any other facility for which land is needed in the future. However, official maps are primarily intended and used to protect future highway and road rights-of-way. The rationale for road reservations via official maps is that, if permanent structures are built in a future right-of-way, it will create an obstruction that will increase the cost to the public for condemnation. The need for designating on an official map other public land reservations, such as parks and school sites, is much less clear since alternative sites for these facilities should be available.

Example applications. The official map as a land use tool has its roots in the Standard City Planning Enabling Act (1928). The official map was also described as "mapped streets acts" by planner and attorney Alfred Bettman in 1935 (American Planning Association 1998). Planner Fred Bair (1979) provides a "major street ordinance" generally designed to implement a major street plan, thus serving some if not most of the functions of an official map in the context of streets. Ndubisi (1992) describes official maps and provides a generic example. The official map as a tool has never really gained popularity among local governments in Georgia. In fact, there is no known evidence of local applications of official maps in Georgia.

Administrative requirements for implementation. Once adopted, the official map must be updated to account for changes in the way a community has grown. Such required adjustments require labor and monetary investments (Ndubisi 1992). A Board of Appeals is strongly recommended to hear variances or modifications, if not required altogether by the official map ordinance.

Political considerations. Unknown.

Effectiveness. Ndubisi (1992) finds that an official map "is an effective tool not in general use for small communities facing rapid growth and investment in public facilities." He finds that official maps can reduce expenditures, provide an accurate record of existing and planned public facilities, and that they help developers plan their properties in a manner consistent with community plans.

However, Ndubisi (1992) also finds that an official map alone is not an effective tool in implementing a comprehensive plan. The absence of any discussion about official maps in growth management texts (Kelly 1993; Nelson and Duncan 1995; Porter 1997) suggests that official maps are not considered an essential growth management tool. Even the most frequently cited land use planning text (Kaiser, Godschalk and Chapin 1995) does not provide a discussion of official maps.

Legality. Most states authorize local governments to adopt official maps (Rathkopf and Rathkopf 1989). A New York Court of Appeals case, Headley v City of Rochester (272 N.Y. 197, 5 N.E.2nd 198) (1936) upheld the constitutionality of a local provision prohibiting buildings within the bed of a mapped street (Rathkopf and Rathkopf, 1989).

In Georgia, official maps were authorized by the General Planning and Zoning Enabling Act of 1957. The enabling legislation provided that an official map could be adopted which shows the location of streets, public building sites, and public open spaces. The law also indicates that an official map could also show public sites approved on plats of subdivisions which have been approved by the local planning commission. If a master plan or at least a street plan is developed, a local planning commission may adopt an official map showing future streets. The enabling legislation also provides for a showing of parks, playgrounds, and other public open spaces on the official map, and it enables local governments to adopt ordinances that prohibit or restrict building construction within future streets and future public use properties. It provides for an appeal to the Board of Zoning Appeals or if none exists a Board of Appeals created for that purpose.

The 1957 enabling legislation, as of 1976 when changes were made to the state constitution, was invalidated and thus no longer appears in the Georgia Code. Hence, there is no enabling legislation for adopting official maps in Georgia.

There may be a need to provide relief via a variance process to avoid U.S. takings challenges in light of Lucas v South Carolina Coastal Council (505 U.S. 1003) (1992). Ndubisi (1992, p. 27) calls this a "modification." Rathkopf and Rathkopf (1989) indicate that "power similar to that conferred with respect to zoning variances is customarily given to boards of appeals to vary requirements [of official maps] in particular situations."

Based on the Lucas case, local governments must make sure that the official map designation does not result in a permanent or indefinite deprivation of all reasonable uses. In various state court cases involving the issue of an official map, many state courts have repeatedly held that the mere indication of a property on an official map does not by itself constitute a taking. The Standard City Planning Enabling Act indicated that the official map is only a reservation of the land and not a formal establishment of right-of-way or a taking of land therefor. However, this provision is "no longer workable" in that it opens the door to takings claims (American Planning Association 1998). It tends to imply the land will be acquired through eminent domain or purchase. Planner Fred Bair (1979, p. 210) observes that "courts have frowned on efforts of cities to protect right-of-way until such time as it is convenient to acquire it, on grounds that this is a taking of property without just compensation."

An official map designation might possibly run afoul of the provisions of the Georgia Development Impact Fee of 1990. For instance, that law limits the nature in which system improvements can be acquired (or required of developers) by local governments.

If a local government that charges impact fees for parks and recreation and designated future park sites on an official map, and then tried to exact that park site from a developer during the development application process, this would appear to be a violation of the principles of the development impact fee act. However, these concerns appear to be remote, since to merely designate it as a future improvement does not imply the local government is trying to exact the land from a developer. Rather, that the land designated for future public use would be acquired through legal means, and if that acquisition meant credits be given toward system improvements in the case of any development impact fees charged of developers.

Applicability in rural Georgia. Because the official map is an outdated tool and there seems to be a more legally viable alternative called a corridor map (see discussion below) for the primary purpose to which official maps are put (i.e., reservation of transportation right-of-way corridors), it is not recommended for use in Georgia.

20. CORRIDOR MAP

Description and purpose. This tool is much like the official map, described above, but only for streets and other linear transportation facilities. It is also similar to what Fred Bair (1979) describes as a "major streets map." The corridor map includes land designated by the state transportation department for the construction or improvement of transportation facilities.

Example applications. The American Planning Association's Legislative Guidebook provides a model statute for a corridor map. It only applies to transportation facilities.

Administrative requirements for implementation. A corridor map requires a comprehensive plan that designates future streets and linear transportation facilities. Therefore, a comprehensive plan with specific recommendations on future streets and linear transportation facilities should be considered a prerequisite. It requires coordination with the state transportation department if it is to include state highways and other linear transportation facilities. Procedures for adoption should generally follow minimum standards specified in the Zoning Procedures Act, including general notice in a newspaper of general circulation and holding a public hearing. Written notice to all owners of parcels of land involved in a future transportation corridor is also advisable

Political considerations. As noted by the American Planning Association, a local government may for political reasons prefer to write its corridor map ordinance in a way that allows the local government to exercise an option to buy the parcel instead of establishing pre-existing rights in the land.

Effectiveness. *Unknown, since this tool has apparently not been widely implemented.*

Legality. The corridor map is reportedly more legally defensible than an official map. Since an official map was once specifically enabled in Georgia, the corridor map (a derivative) should also be considered legal. See the section above on "administrative requirements for implementation" for additional recommendations. The corridor map ordinance must be carefully written so that it does not restrict all reasonable uses of a given parcel (see discussion under "official map").

Applicability in rural Georgia. This tool holds some promise in rural Georgia, where local governments see the need to protect future road corridors from encroachment by buildings.

21. LAND CLASSIFICATION AND REGULATION

Description and purpose. This approach, which is intended to apply to urbanizing counties, would consist of a text (with regulations and policies) and a map that designates a limited number of distinct areas: a built-up area; an undeveloped area subdivided into high-intensity and low-intensity development sectors; protection areas; and rural "holding" zones. The line which separates the built-up areas from undeveloped areas is referred to by Noble (1967) as the "development frontier." In modern terms this is referred to as an urban growth boundary. Within the built-up area, a conventional zoning ordinance would apply with the intention of protecting established neighborhood character. Outside the development frontier, development sectors would be designated, within which large-scale urban development for high-intensity uses would occur. Development could take place be rezoning to a "floating zone" established in the zoning ordinance. Outside of development sectors in the undeveloped area, only small-scale rural development would be allowed by right.

Example applications. The system described here was proposed in 1967 in a report by Jack Noble published by the American Society of Planning Officials. Specific examples are not provided. However, the proposal resembles what is called a "land classification" approach in the planning literature. Moreover, this concept appears to be an early iteration of land classification and Freilich's (1999) urbanizing tiers concept which has been implemented in numerous areas of the U.S.

Administrative requirements for implementation. The administrative requirements would not be much different from administering a conventional zoning ordinance. An official map would be used in conjunction with this tool.

Political considerations. Unknown. However, to the extent that such a system would apply more restrictive controls than conventional zoning, it would appear to be more difficult to muster the political will locally to adopt such an approach.

Effectiveness. This type of system is considered to be much more effective at managing growth than conventional zoning. It has been shown that systems of this sort are more effective at containing urban development and preventing its encroachment on farm and forest lands.

Legality. The basic nature of this concept is legal in Hawaii, Oregon, and Washington, and possibly other states.

Applicability in rural Georgia. Possible. There is some simplicity to the concept that lends itself to rural areas, if they are experiencing significant urbanization. Although the system as proposed is considered applicable only to growing (urbanizing areas), variations of this approach might be appropriate in rural, slower growing areas of Georgia, if the regulations and policies on development in the "undeveloped area" are not overly restrictive. We had already agreed to include a land use intensity districting alternative in the model code, and this alternative system can be worked into that option, with an emphasis on managing the timing and location of growth in rural areas.

22. DEVELOPMENT ALLOCATION SYSTEMS

Description and purpose. An allocation or "quota" system places a carefully selected numerical limit or quota on the amount of development which will be approved during a designated time frame. The quota may be a permanent cap on population, or an annual growth rate, or an annual cap on the number of permits for housing units issued, for example. Different rates of development might be established for separate areas. Development proposals are evaluated and ranked based on the degree that they satisfy criteria designed to ensure consistency with the land use management system's goals and objectives. The quota is then allocated to development in accordance with rankings until all proposals are approved or the quota for the given time period is exhausted (Chinn and Garvin 1992). A development allocation system can be designed to serve many different purposes, including addressing a local government's inability to provide public facilities and services needed for new development, preserve the status quo during revision of land use regulations, protecting quality of life, preserving open space and environmentally sensitive areas, and agricultural and historic preservation (Chinn and Garvin 1992).

Example applications. None in Georgia. Ramapo, New York, was one of the first local governments to implement a development allocation system. Petaluma, California is another famous example of a development allocation system.

Administrative requirements for implementation. A development allocation system can reportedly be either simple or complex, depending on the goals and objectives a local government seeks to implement. However, a development allocation system generally supplements rather than substitutes for an existing development regulatory system and involves rather complicated administrative tasks (Chinn and Garvin 1992),

Political considerations. Political will to implement such a system is likely to be lacking in rural areas.

Effectiveness. Rigorous program evaluations of development allocation systems have not been conducted. However, rate of growth ordinances and development quotas are generally effective at limiting the quantity of growth.

Legality. An allocation system for Ramapo, New York, was upheld in the landmark case, Golden v Planning Board of Town of Ramapo (334 N.Y.S. 138, appeal dismissed, 409 U.S. 1003) (1972). A federal court upheld Petaluma, California's allocation system in Construction Industry Association of Sonoma County v City of Petaluma (522 F.2nd 897) (9th Cir. 1975) (cert. Denied, 424 U.S. 934) (1976). Currently, there is no sound legal basis or enabling authority for the implementation of growth management tools of this sort in Georgia. Since Ramapo and Petaluma, courts in California and perhaps

elsewhere have consistently upheld development allocation systems as a legitimate means of promoting the public welfare (Chinn and Garvin 1992).

Applicability in rural Georgia. Remote, due to lack of legal basis in Georgia, a lack of specific enabling legislation, and the absence of political will for strong growth management techniques. In limited instances, such as interim controls while an a permanent system is designed and implemented, or in the case of facility shortages, a development allocation system might have some limited applicability.

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