

Staff Paper P69-22

August 1969

Using Local Comprehensive Planning to
Control Lakewater Pollution in
Seasonal Home Communities*

by

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* Presented at the annual meeting of the American Agricultural Economics Association, University of Kentucky, Lexington, Kentucky, 19 August 1969.

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A growing body of research testifies to the rising importance of preventing lakewater pollution in second home communities if potential levels of economic growth are going to be realized. (1, 2, 5, 6, 7, 10) As second home numbers mount to unprecedented levels, the estimated per cottage local expenditures of \$1,800 per year must weigh heavily on the scales of local government decision-makers. (6) There are few bases for economic growth for which decisions in the public sector have a greater relative importance. The imperative of controlling lakewater pollution, including "over-enrichment" by plant nutrients, originating through lakeshore use is almost self-evident. Not so conclusive are answers to two crucial related questions: how much is it going to cost to control pollution and how will the total cost be allocated. More to the point of this discussion, what is the role of local comprehensive planning and zoning in determining answers to these two questions?

Clearly, the contribution of comprehensive planning varies with the source of pollution. Where pollution results from the intrusion of wastes from the lake-side location of concentrations of people, such as municipalities, resorts and other commercial establishments, concentrations of livestock, such as large feed-lots, and concentrations of manufacturing or processing activity, pollution control

costs should be assumed by each polluter. These costs are not a heavily weighted factor in most location decisions since their avoidance by locating elsewhere cannot be assured. Each violation or potential violation is serious enough to warrant individual attention. Such preventive devices as code enforcement, regulation, inspection and licensing can be economical and successful. Action by a state agency, if adequately financed, may be more appropriate than local efforts. The role of local comprehensive planning will be, at most, a relatively minor one.

Where pollution can be traced to the use of lakeshore property for residential purposes, the situation is quite different. Presumably the incidence of cost still should rest largely, but perhaps not completely, on the polluter, i. e., the resident or the seasonal homeowner.^{1/} But the magnitude of total cost can be sharply affected by the successful application of comprehensive planning. Lower costs can be instrumental in attracting potential vacation home buyers. Thus, comprehensive planning can make a vital and substantial contribution to economic development.

Comprehensive planning only operates well in a dynamic setting. This we decidedly have in seasonal home communities. Nationwide, the decade of the fifties saw a 74 percent rise in census-enumerated second homes to a 1960 total of 1,400,000. (7) Casual observation and other indicators suggest that the trend has continued, probably accelerating, in the sixties. Because purchase money is seldom borrowed, the current high interest rates probably have had little effect. An estimated additional 4,000 lakeshore cottages appear in Minnesota each year. This high growth rate phenomenon has led to predictions of the incipient disappear-

ance of available undeveloped lake frontage. Assuming a density equivalent of one hundred feet per cottage, however, and the continuation of present trends, Minnesota's natural endowment is such that less than one-half of the total frontage is likely to be developed by 1980. As a result of rising interest in non-frontage property, even this projection may prove to be on the high side. Rogatz has predicted that future second homes will increasingly be located in complete "planned unit developments" in which a limited amount of lake frontage is shared by numerous owners of cottages on separate non-frontage building lots. (5) The arrangement often also includes sharing the use of golf courses, swimming pools, tennis courts and other recreational facilities. Planned unit developments, (PUD's) have already appeared in Minnesota, as elsewhere. They are strongly competitive with cottages on small frontage lots and will become more so as the price of frontage continues upward. As this happens, the rate of development of frontage property may be slowed.

Given these facts, unless the Minnesota case is very atypical, it is clear that the continuation of present trends will produce a development pattern around many lakes that consists of numerous scattered individual dwellings or small clusters of dwellings plus a few PUD's, a number of commercial establishments, and public accommodations. Under these low density arrangements, which will probably persist for some time, the only economically feasible way to dispose of household and other wastes is through private on-site disposal systems. Locally controlled boards or commissions, strenuously enforcing adequate sanitation or septic tank

codes and ordinances can prevent lakewater pollution. Comprehensive planning and zoning can make a contribution by identifying areas where problems are likely to occur, establishing physical development standards in accordance with code enforcement needs, and providing guidelines for code formulation. To a very limited extent, "use" zoning may prevent development at some of the poorest locations.^{2/}

This method for pollution control has the advantage of minimum interference with the property rights of individuals. It has the disadvantage of high cost. Inspecting and regulating large numbers of individual disposal systems will be both costly and difficult for local government. It will also be costly to homeowners, especially those having to install adequate disposal systems on so-called "tight" soils.^{3/} Costs will be magnified as private disposal systems need to be replaced with public systems as development in the area reaches a certain density. The customer essentially pays double under these circumstances. Many areas are well on the way through a process that will result in this multiple expense.

The alternative to code enforcement and supportive measures and the ultimate high cost is to use comprehensive planning in a somewhat bolder context. Measures can be taken that will allow some local authority to exercise a significantly higher level of control over the pattern of development. With this alternative, intensive development would take place in an orderly and stepwise fashion and could be served by public waste disposal systems from the start. Public systems, using modern technology, often can serve such developments more cheaply and efficiently than private systems.^{4/} The lagoon system, in particular, appears to

be particularly adapted to situations where disposal problems are concentrated in the summer months. As developed areas expand, waste collection and treatment facilities could be added without excessive cost. Developments could expand into areas with tight soils and high water tables without creating unusual problems.

Savings on waste disposal are one part of the total picture. Possible savings on many other public services, such as roads, law enforcement, public water, and even street lights must be considered. Research at Minnesota, where a classified property tax facilitates some comparisons that would be difficult elsewhere, has suggested that township governments in lakeshore areas lack the financial means of providing adequate access roads for all lakeshore property.^{5/} Meanwhile, survey responses indicate that seasonal homeowners are highly critical of local access roads, which in Minnesota are provided by town governments. (8)

It is almost common knowledge that supplying needed public services to a scattered residential development results in a high per unit cost. The frequently heard "pitch" of comprehensive planners operating in suburban and exurban areas keeps this well-established fact safe from oblivion. The planners, however, also tell us that we can control development through comprehensive planning. This has not, so far, proven to be a statement of very great validity. Our experience in trying to prevent urban sprawl and leapfrog residential development has said loudly and clearly that the battle is being lost. As unpalatable as it may be, the truth is that zoning and other land use control devices, although beneficial in other ways, have been strikingly ineffective in controlling sprawl. This has been due to three basic facts of life.

1. Holders of undeveloped land, sometimes unwisely, prefer playing the game of "real estate roulette" to the unspeculative security offered by orderly development.
2. Local government decisions regarding zoning and related matters are strongly influenced by the preferences of those landowners.
3. We have a long tradition of strong property rights and are reluctant, even where political influence is not a factor, to take away the privilege of playing "real estate roulette" under a control system that pays the landowner nothing for giving up this so-called right. ^{6/}

Aside from the easily visible effects of this failure and the lack of sufficiently stringent zoning regulations, recent studies give us stronger evidence. Manvel indicates that three-fourths of all requests for zoning variances and rezoning have been approved, despite the wholly justified complaint of professional planners that these actions eventually destroy a large part of the value of comprehensive planning. (3) This suggests that passing more stringent regulations will not make zoning more effective.

There is little reason to think zoning will be any more successful in the rural lakes region than in suburbs and exurbs. If anything, it is likely to be less. The level of ignorance about the physical characteristics of our lakes and lakeshores is distressingly high. Until we are willing to spend significant amounts of public funds to dispell this ignorance, we will not be in a position to zone intelligently even for the limited purpose of augmenting and effectuating a system of sanitary code enforcement. The level of expenditures needed to produce knowledge that would

justify more stringent and detailed zoning may not be acceptable under present budgetary conditions.

Recognition of the problem is a first step, but an encouraging one. We are gradually learning more about our natural resources. Future zoning ordinances will reflect this greater knowledge as well as higher experience levels with lakeshore zoning. But zoning is and probably always will be a tool beset with imperfections. Where lakeshore development control is considered essential other devices that can produce more positive results will have to be implemented.

One device that has proven to be effective is simply to install public sewerage in desirable development areas prior to actual development. Costs are high, with estimates running up to and beyond \$20 per foot of frontage. They would probably have to be covered temporarily by issuing general revenue bonds with eventual recovery from assessments against property being developed. Benefits in the long-run should be well in excess of costs, however. The effect on the development pattern will be enhanced, of course, if sewerage installation is accompanied by other public improvements, such as roads. Such improvements could be financed in the same manner as sewerage.

Another process used with some success in some areas is the purchase of lakeshore property by a public body, subsequent installation of public sewerage, etc., and finally reversion to private ownership. Deed restrictions, as well as zoning controls, can be imposed. This is very similar to urban renewal procedures, but would avoid many problems, such as relocation, that occur in downtown renewal projects. Many modifications of this procedure are possible. One

option is to purchase "development rights" rather than a fee simple estate in lakeshore property. These development rights, long advocated by Whyte as a development controlling device, could be returned to private ownership when development is considered desirable. (9)

The alternatives for controlling lakeshore development and thereby affecting the cost of controlling lakewater pollution are many. In view of the growing economic importance of second homes in many rural lakes regions and the need to keep both pollution levels and pollution control costs low to attract the seasonal homeowner, it is important that steps be taken before the pace of lakeshore development erases the significant economic contribution that could be made by comprehensive planning.

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Footnotes

- 1/ The partial assumption of costs by local government units, using general funds for payment, may be used as an inducement for seasonal homes development.
- 2/ In addition, subdivision regulations can prevent haphazard development with inadequate physical facilities. Very important for immediate future conditions will be regulations encouraging and controlling the establishment of PUD's which combine aspects of zoning, subdivision regulations and code enforcements.
- 3/ According to contractors in the Minneapolis - St. Paul Area, costs for an installation for an average 3-4 bedroom home vary from an estimated \$550 under virtually ideal soil conditions up to an estimated \$2,000 for some of the newer systems designed to operate where very adverse soil conditions exist.
- 4/ High water tables and proximity to lakes require the installation of larger, more complex on-site systems than in most rural locations. The cost advantage of public systems is, of course, greater for small frontage lots, which rising frontage prices are making more popular.
- 5/ In contrast to counties and school districts the presence of seasonal homes does not appear to bestow unusual fiscal advantages on township units.
- 6/ It might be added that we also have not developed and accepted a system that does pay off the landowner.