

PROTECTING OPEN SPACE IN AND AROUND THE TWIN CITIES METROPOLITAN AREA

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ABSTRACT—There are many efforts to preserve open space from urban development in and around the Twin Cities Metropolitan Area. Some involve public acquisition of a landowner's use rights, either acquiring fee title or encumbering the land with an easement, while others involve public restriction on how a landowner may exercise the use rights. This paper asks, "How should we think of these efforts—in terms of our democratic institutions and in terms of past and future urban growth?"

Approximately 75 percent of the seven-county Twin Cities Metropolitan Area in Minnesota, almost 1.5 million acres, consists of open space, areas without structures typically associated with urbanized land uses (table 1). Some of this open space is composed of tracts of publicly owned land set aside for recreation within the urbanized area. This open space is clearly a specific land use type, even though outdoor recreation includes opportunities for a wide range of activities and thus encompasses a suite of structures. The bulk of the open space, 1.1 million acres, defies any such easy categorization, however. It is "nonurbanized land," publicly and privately owned tracts on the edges of the urbanized areas and adjacent to major transportation corridors. This land is currently being used in a variety of ways, particularly—although by no means exclusively—for agriculture. Paradoxically, in a metropolitan

area with abundant open space, the debate about its future is intense, largely because the open space on the edges of the urban area is regarded as space available for future urban purposes and its protection is seen as a way of preventing urban sprawl. The contentious debate about the future of open space in this urban area must be informed by an appropriate geographical and historical framework, and this is what this paper attempts to do.

Open space in the Twin Cities Metropolitan Area reflects the cumulated decisions made by chains of landowners, governments, corporations, and individuals, over a long time to exercise their real property rights—and so use the land surface—in ways that either produced, or at least did not destroy, open space. They have done so in response to public policies made by multiple jurisdictions (fig. 1). Existing jurisdictions consist of the federal government, the state government, the Metropolitan Council (the regional planning agency), 7 counties, 138 cities, and 50 townships. The number of jurisdictions has changed through time. Some of them, such as counties and townships, have a long history; some—the Metropolitan Council and a number of cities for example—have shorter histories. All the jurisdictions, except some of the townships have Web sites where their activities are described (<http://www.state.mn.us/>).

Open space, then, is a political statement that represents both the cumulated outcomes of the continuous, often acrimonious, debates about the utility of open space and the role and responsibility of government to produce it, and the cumulated response of myriad landowners to public policies embodying the outcomes of those debates. These policies are characterized by legislation, attendant regulation, and subsequent judicial opinions (fig. 2). Open space in the future will similarly reflect public policies and the response of landowners.

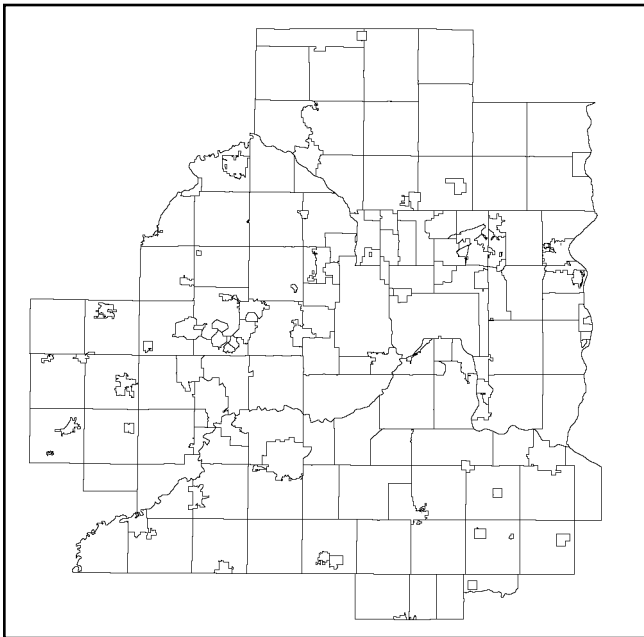
Landowners operate in a geographical framework that is relatively clearly defined by the boundaries of the real property they own and that occupy unique locations sited within multiple jurisdictions. Therefore, the responses of landowners to policy can be easily mapped, and the geographical framework of public policies is quite clear. Of course, the number of landowners and the size of the tracts have changed over time,

Table 1.—Land use in the Twin Cities Metropolitan Area (Source: <http://www.metrocouncil.org/metroarea/LandUse/metro%20area.pdf>).

Urbanized	Acres	% Surface
Residential	368,610	20.3
Commercial	32,273	1.7
Industrial	56,242	2.9
Highways	25,458	1.3
Open Water	123,971	6.5
Outdoor Recreation	163,286	8.6
Institutional	32,548	1.7
Total	802,388	43
Nonurbanized	Acres	% Surface
Wetlands	169,285	8.9
Undeveloped	355,503	18.7
Agriculture	576,964	30.3
Total	1,101,752	57
Total Area	1,904,140	100

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Figure 1.—Jurisdictions in the Twin Cities Metropolitan Area.



as fragmentation of the land surface and agglomeration—the reverse of fragmentation—have occurred. The present open space can be described either from the perspective of the landowner, focusing on the way in which a particular landowner—a government, a corporation, or a private individual—produces it or from a jurisdictional perspective, focusing on the debates about the utility of open space and the role and responsibility of government in producing it, i.e., the formulation of public policy.

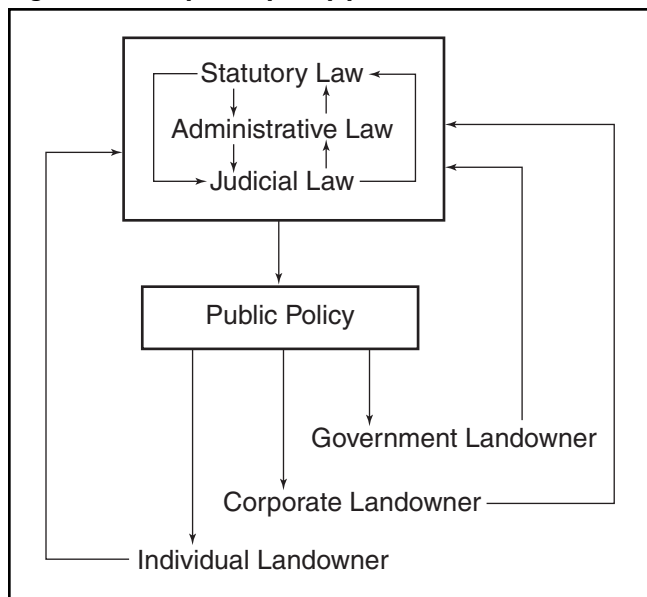
The temporal framework in which landowners operate is not as easily described because the influence of the past is pervasive in so many ways and many landowners continue to use the land as they had in the past. The temporal framework of public policy also is difficult to describe because the debates about the utility of open space and the role and responsibility

of government to produce it are ongoing. In fact, the role and responsibility each government assumes in producing open space is partly determined by the role and responsibility it inherits from the past and partly by the debates about its present and future roles and responsibilities. If there is not such historic continuity, open space can only be described as a series of historical accidents rather than the cumulated responses of successive landowners to successive public policies designed to produce open space and a particular response of the present landowner to those policies. It is sufficient to assert here that historical continuity and historical inertia are important determinants in describing both current public policies toward open space and landowners' response to those policies.

The amount and distribution of open space have changed over time as governments have recognized the utility of open space, accepted the responsibility for producing it, and established procedures for doing so. At times governments have vigorously promoted such policies and at times they have not. Over time public policies have incorporated more knowledge about the utility of open space and the land use activities that can modify or destroy the ecological characteristics of such areas, about the different methods for producing open space, and about the ways to evaluate the success of such policies. Simply put, the current open space has been produced by a variety of landowners, for a variety of purposes, in a variety of ways, in response to various public policies, and over a long time.

The production of open space in the future will involve the same debates about the utility of open space and the role and responsibility of governments in producing it. In the built-up area the debates will continue a longstanding discussion about the responsibility of governments to provide outdoor recreation opportunities to residents. On the margins of the built-up area, however, the debate will concern the responsibility of governments to produce open space in the face of increased population and the attendant responsibility of government to produce urban uses of the land rather than open space. In both urbanized and nonurbanized areas, existing open space will be preserved only if public policies exist under which particular landowners decide to exercise their real property rights in ways that maintain open space. New open space will be produced only if public policies exist under which particular landowners decide to exercise their real property rights in ways that produce open space.

Figure 2.—The public policy process.



A PARADIGM FOR OPEN SPACE

In the Twin Cities Metropolitan Area, multiple jurisdictions possess the legal authority over land use activities, and each establishes public policy that contributes to the geographical framework in which particular landowners decide to produce, maintain, or even destroy open space. Some—the federal government, the state government, and the Metropolitan Council—establish policies that influence all landowners living in the metropolitan area. The Metropolitan Council (<http://www.metrocouncil.org/>) has been given the responsibility for coordinating the land use plans of local governments as well as for planning urban growth. Local governments—counties, municipalities, and townships—establish policies that influence landowners in a smaller geographic area and in a

more limited way. Each landowner responds to these multiple public policies by using his/her tracts of land to produce open space or to produce something else that, in effect, destroys open space.

All policy promoting the production of open space, whether such open space is designed to create recreational opportunities or to curb urban sprawl, reflects acceptance that open space is useful and government has a responsibility for producing it. All such policy involves two pathways of production: through public production or through private production (fig. 3)

Governments can produce open space by acquiring fee title to land from private landowners and designating it as open space. Most of the open space that provides opportunities for outdoor recreation within the built-up area is publicly owned and reflects this policy pathway. There is also publicly owned open space in the nonurban area, of which some is set aside specifically for recreation and some is set aside for other reasons, such as wildlife protection. All these lands have been acquired by the government in a variety of ways, by purchasing title from willing sellers, by exchanging land with landowners, by accepting donations of land from individuals, and even by condemning land (fig. 4).

Governments can produce open space by coercing private landowners into producing it. Open space on the margins of the built-up area is largely privately owned, and its production has been elicited in a variety of ways as governments have been extremely inventive and resourceful (fig. 4). Three categories of coercive mechanisms exist. One of these, regulation, is defined by the police power of governments. The other two are defined by the taxing and spending power of governments,

one involving monetary compensation to the affected landowners and the other involving the construction of public works that form part of the urban infrastructure (e.g., transportation lines, sewer and water lines, schools, and libraries). All these forms of coercion have been used in the past to produce open space and are thus embodied in existing public policies and, presumably, will be used in the future.²

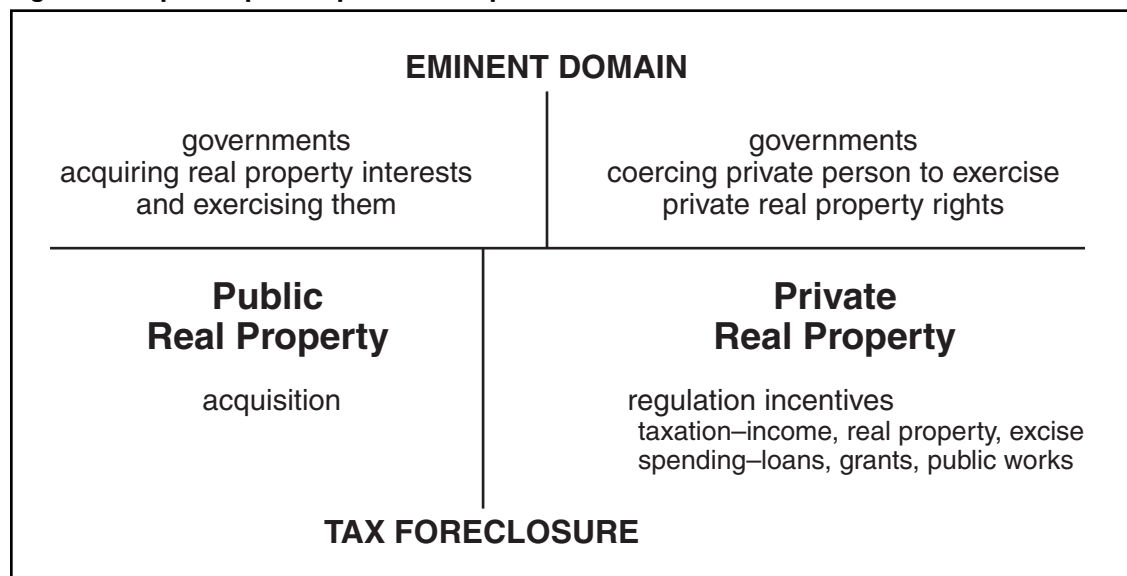
Regulation

Governments prohibit landowners from exercising their real property rights in ways that would destroy the open space characteristics of their land. This “big stick” approach to producing open space is the oldest and possibly the most contentious coercive tool governments possess. Regulation can either be very specific, targeting landowners who possess real property with valuable ecological characteristics, such as wetlands, bluffslands, or floodplains, or it can be very general, operating through zoning ordinances as part of the comprehensive land use planning efforts of governments. Obviously there has to be public will for regulating the activities of particular landowners, but there is a limit to what regulation can occur without it being considered excessive and triggering a “taking” challenge in court.³ In addition, although the land remains private, its value may be diminished by the regulation and thus affect the tax base of local units of government.

Monetary Compensation

Governments give monetary compensation to specific landowners for not exercising their real property rights in ways that destroy the open space characteristics of their land. This “carrot” approach to producing open space involves a range of compensatory devices. Landowners

Figure 3.—A public/private production spectrum.



² All have a history of use by particular governments. An examination of the utility of these methods in open space production cycles would be interesting and informative but is beyond the scope of the paper.

³ The line between private and public lands is defined by the point at which courts have decided that government regulation has denied a landowner all reasonable use of the land and thus moves along the public-private spectrum.

Figure 4.—Tools for producing open space.

Promoting transfer of real property rights to “conservation” owner or public	Coercing existing landowner to exercise real property rights in a particular way
Sale of fee title Sale of fee with reservation of life estate Donation of fee title Donation of fee with life estate Donation of fee by bequest Sale/donation of fee with deed restriction Donating conservation easement Selling conservation easement Mutual covenant Lease Bargain sale Exchange Condemnation	Management agreement Registry program Stewardship program Land retirement program Restoration (cost-share) program Property tax relief program Zoning Subdivision regulation Constructing transportation links

receive grants, which they do not repay, loans, which are repaid often at very favorable interest; and many tax breaks—on income, on purchased goods and capital expenditures, and on real property. Obviously, the public has to support providing such compensation, but governments generally appear to have an insatiable appetite for them, especially tax breaks that encourage preferred behavior and, by exclusion, deter undesirable behavior.

Urban Infrastructure

Governments construct the roads and other public works, such as water and sewer lines, that are deemed necessary for providing urban services to existing landowners and for directing urban growth. These public services stimulate the growth of private services such as solid waste disposal, and electrical, gas, and telephone services. The provision of wastewater treatment services in the Metropolitan Urban Services Area is, in fact, a prime tool of the Metropolitan Council in directing urban growth in the Twin Cities Metropolitan Area (Johnson 1998).⁴ But the regional transportation network also is a big factor in urban growth.

The Conservation Easement

Conservation easements have become popular in the past decade throughout the nation (Gutanski and Squires 2000). They combine elements of both pathways of open space production described above. Owners of land with open space characteristics voluntarily convey some of their rights to use the land surface to public agencies or to certain nonprofit corporations and receive monetary compensation in the form of income tax and property tax relief. The land burdened by conservation easements remains privately owned but may be open to the public.

Costs and Benefits of the Tools Used to Produce Open Space

All methods of producing open space have costs and benefits, both known and unknown. All are dependent on the debates about the utility of open space, the role and responsibility of government to produce it, the subsequent public policies that emerge, and the response of landowners to those policies. Governments can acquire land to produce open space only (a) if they accept responsibility for producing open space by doing so, rather than leaving such land in private ownership, (b) if they are willing and able to appropriate funds in order to acquire and manage the land, (c) if owners of land with particular ecological characteristics are willing to convey title to the government, and (d) if both governments and landowners are willing to have the land removed from the property tax rolls. This strategy requires funds to acquire the land parcels and to maintain their ecological characteristics and so may not be possible in times of restricted government finances. The greatest objection to this approach, however, is that the land is removed from the property tax rolls and is not popular with local governments relying on the property tax as their principal source of revenue. In times of limited budgets and diminished political will, this approach is not possible.

Governments can coerce private landowners into producing open space only (a) if they accept responsibility for producing open space by doing so, (b) if they are willing and able to establish adequate regulatory or compensatory programs or to construct public works, and (c) if owners of tracts with particular open space ecological characteristics are willing to have their uses restricted in some fashion.

⁴The MUSA boundary line is the outer edge of the urban area. It is a line agreed to jointly by the council and local governments through local comprehensive plan reviews. It delimits the outer reaches of regional services for the specified time period. Smaller cities beyond this line have established Local Urban Service Areas (LUSA) that similarly provide wastewater treatment facilities.

AN INVENTORY OF RECREATIONAL OPEN SPACE

Tracts of land of varying sizes and name, specifically designated for outdoor recreational opportunities, exist throughout the urban and nonurban portions of the Twin Cities Metropolitan Area. Virtually every jurisdiction, in fact, owns and manages recreational open space. Most of this type of open space reflects long-established and well-entrenched public policies under which governments have acquired land and produced outdoor recreation opportunities.

Producing such open space was, and is, relatively simple. Governments identify suitable parcels of land and acquire fee title to them from private owners either voluntarily, by purchasing them, by exchanging them for other lands, or by persuading the owners—often using monetary incentives—to donate the lands to the public. Or, governments can acquire land from private owners involuntarily, by exercising their power of eminent domain. These lands have been acquired over the entire existence of some governments. Some tracts were acquired a long time ago, and their continued existence reflects persistent public policies that value open space and government ownership of it. Some tracts were acquired recently and reflect more recent debates about the utility of open space and the role and responsibility of governments. Many recreation units have grown over time as governments have acquired different parcels in different ways for open space purposes. There is every reason to suppose, given such longstanding commitment to outdoor recreation by jurisdictions in the metropolitan area, that in the future the existing open space will be maintained and additional recreational open space will be produced. There will, of course, be periods when public policy in a particular jurisdiction allows government to acquire fee title to land with the specific ecological characteristics. There will also be periods when public policy does not allow such acquisitions, because land is not available at an appropriate price, for example. What follows is an overview of the range of recreational open space areas that exist in the Twin Cities Metropolitan Area.

Federal Government

The National Park Service manages two units in the metropolitan area, the St. Croix National Scenic Riverway (<http://www.nps.gov/sacn/>) and the Mississippi National River Recreation Area (<http://www.nps.gov/miss/index.htm>). The U.S. Fish and Wildlife Service manages the Minnesota Valley National Wildlife Refuge and Recreation Area (<http://midwest.fws.gov/MinnesotaValley/>), the Upper Mississippi Valley Fish and Wildlife Refuge, and various wildlife management areas. These units were established for different purposes at different times, and lands within their boundaries were acquired by the federal government in different ways. They include lands owned by the state and local units of government and by corporations and private individuals. The existence of these open spaces relies on government acquisition of real property rights within the boundaries of the units—both fee title and easements—and on the powers of governments to regulate the activities of private landowners that are inholders in the

units. The U.S. Army Corps of Engineers manages three locks and dams and associated recreational areas (<http://www.mvp.usace.army.mil/>).

State Government

The Minnesota Department of Natural Resources manages several outdoor recreation units in the metropolitan area, including 3 state parks, 3 state trails, 16 scientific and natural areas, and 18 wildlife management areas (<http://www.dnr.state.mn.us/index.html>). The state provides public access sites to water bodies and fishing piers, and it has established canoe and boating routes throughout the area. All of these, funded in various ways by state appropriations, user fees, and federal money, reflect the state's longstanding commitment to open space. The DNR also promotes a number of programs that reward private landowners for producing open space. The most recent episode in state public policy is one that emphasizes public ownership and quasi public ownership—ownership by nonprofit corporations and local communities—that increasingly necessitates public acquisition of easements rather than fee title.⁵

Local Governments

Each municipality in the metropolitan area provides outdoor recreational opportunities. As early as 1849, private land was donated to the newly established settlement of St. Paul to be used as a park, and 8 years later, lands were donated to Minneapolis for similar use (<http://www.minneapolis-parks.org/home.asp>). The cities continued to acquire and develop park systems throughout the 19th and early 20th centuries. Other local governments also aggressively acquired and developed parkland.

Today, there are 46 parks and park reserves and five special recreation areas—encompassing 47,000 acres—and 22 trails—covering 170 miles—in a regional park system in the metropolitan area. Many of these parks were originally county parks and became regional parks when the Metropolitan Council assumed authority over regional recreational planning (<http://www.metro-council.org/parks/parks.htm>). The council plans this system and makes grants from state appropriations and bond issues to counties, municipalities, and park districts to allow them to buy and manage the land surface according to master plans approved by the council. Each government pays the operation and maintenance costs for the units under its jurisdiction from real property tax revenues, funds from the state legislature, and user fees. Each park district in the metropolitan area has to prepare and submit to the council a master plan and an annual budget to acquire and develop regional open space that is consistent with the council's open space plan.

AN INVENTORY OF THE OPEN SPACE AT THE URBAN FRINGE

Tracts of nonurbanized open space at the margins of the metropolitan urban area, although not composed of a single land use type, possess two unifying characteristics. The first, rather obviously, is the absence of structures associated with urban land use, apart from a transportation network. The second is

⁵ See Minnesota DNR (<http://www.dnr.state.mn.us/nrplanning/community/index.html>) and the McKnight Foundation (<http://www.embraceopenspace.org/>).

the private ownership of most of the land. The future of these open space tracts in the face of an expanding urban area is engendering much debate. These open spaces will remain only if public policy continues to recognize that such open space possesses utility and governments accept responsibility for producing it, either by acquiring the necessary real property interests in the land or by coercing private landowners into producing it on their own land.

Public policy represents compromise between participants in the debate. It has always embodied multiple, even mutually incompatible, goals. Policy for open space will have to be formulated along with policy for urbanization as population increases in the metropolitan area and as the urbanized area increases. Most obviously, this policy will be reflected in the comprehensive plans developed by local governments and the Metropolitan Council.

Agricultural Land

Approximately 600,000 acres are farmed in the seven-county metropolitan region. These privately owned agricultural lands provide valuable informal outdoor recreational opportunities. Such open space represents the cumulated outcome of public policies in which a succession of private landowners have decided to exercise their real property rights and use the land surface to produce agricultural products and to provide agricultural services, including open space. Maintaining agricultural open space requires federal and state agricultural policies and local comprehensive plans that use a variety of tools to encourage individual farmers to stay in farming rather than to sell their land to developers and move to Florida. Agricultural lands and farmers have long been favored landowners in federal and state policy, and in recent decades governments have developed numerous tools to protect private agricultural lands by providing incentives to the farmland owner to use land in ways that protect farmland—even to the extent of taking land out of production.⁶ In addition, governments have provided a variety of disincentives to discourage landowners from engaging in practices that destroy farmland. Such incentives and disincentives underlie policy that tries to coerce farmers into using lands in ways that protect soil, preserve wetlands and wildlife habitat, and avoid contaminating the ground and surface waters with chemicals.

Other Nonurban Land

A variety of land surfaces—wooded, permanently or seasonally wet, or steeply sloping—are “lightly used” because of their ecological characteristics. Some of these lightly used lands have been set aside as public recreation open space, but the majority of them provide valuable informal outdoor recreational opportunities. Maintaining these lands requires public policy that either allows the public to acquire interests in the land or to encourage the owners of these lands to use it in ways that protect its ecological characteristics. Although governments of

all types have acquired specific tracts for outdoor recreation purposes, many of the places are maintained by state and local government regulation of landowners’ activities.

LOCAL GOVERNMENT INITIATIVES

Increasingly, protecting open space on the urban margins has become a local concern, although not without some conflict between governments.⁷ In November 2002 voters in Dakota County authorized the county board to issue bonds worth \$20 million to protect farmland and natural resources financed through a 10-year property tax increase. The open spaces considered important to protect—because of their location and their ecological characteristics—have been identified in a Farmland and Natural Area Protection Plan (<http://www.co.dakota.mn.us/planning/fnap/Index.htm>). Lands are to be protected by using conservation easements to acquire real property interests and limit their use, providing management expertise to landowners, promoting the state Metropolitan Agricultural Preservation Program, and guiding urban development away from these lands through zoning (<http://www.revisor.leg.state.mn.us/stats/40A/>).

NONPROFIT ORGANIZATIONS

Throughout the United States nonprofit corporations whose sole goal is to preserve the ecological characteristics of certain types of land have emerged to advocate public policies that protect open space and to supplement and complement the efforts of governments in the protection effort. Minnesota has not experienced the tremendous growth in these nonprofit organizations, such as land trusts, that have appeared elsewhere, possibly because of the long-established public policies of governments acquiring land to preserve as open space. A few national organizations, such as The Nature Conservancy and the Land for Public Trust, acquire real property rights they sometimes convey to governments and sometimes maintain possession. The Nature Conservancy recently helped the federal government establish the Glacial Ridge National Wildlife Refuge in Minnesota (<http://nature.org/wherework/northamerica/states/minnesota/>), and the Trust for Public Land is active in Minnesota (<http://www.tpl.org/>). The Izaak Walton League (<http://www.mtn.org/~mn-ikes/>) and the North Star Chapter of the Sierra Club (<http://northstar.sierraclub.org/>) also are involved in protecting open space. The Land Trust Alliance keeps track of open space public policy and the efforts of nonprofits throughout the nation (<http://www.lta.org/publicpolicy/index.html>).

There also are a number of local nonprofits. Some acquire fee title and then transfer ownership to governments, such as the Parks and Trail Council of Minnesota (<http://www.parksandtrails.org/>). Some acquire title and conservation easements and maintain ownership, such as the Minnesota Land Trust (<http://www.mnland.org/>). The majority of them, however, lobby governments to formulate policy protecting open space,

⁶ See the United States Department of Agriculture (<http://www.usda.gov/wps/portal/usdahome>), the Minnesota Department of Agriculture (<http://www.mda.state.mn.us/>), the American Farmland Trust (<http://www.farmland.org/>) and the Farmland Trust Information Center (<http://www.farmlandinfo.org/>).

⁷ For example, in a recent case, *City of Lake Elmo v Metropolitan Council*, the Minnesota Appeals Court upheld the authority of the Metropolitan Council to force the city to change its land use plans and allow more urbanization. See <http://www.lawlibrary.state.mn.us/archive/ctappub/0312/opa030458-1216.htm>.

usually focusing on government or nonprofit acquisition of real property rights rather than the coercion of private landowners to use land in particular ways. Examples include the Midtown Greenway Coalition (<http://www.midtowngreenway.org/>), Friends of the Minnesota River Valley (<http://www.friendsofminnvalley.org/default.htm>), Friends of the Mississippi River (<http://www.fmr.org/>), Great River Greening (<http://www.greatrivergreening.org/>), Minnesota Center for Environmental Advocacy (<http://www.mncenter.org/>), and 1,000 Friends of Minnesota (<http://www.1000fom.org/>).

CONCLUSIONS

The amount and distribution of open space that currently exists in the Twin Cities Metropolitan Area represent the cumulated decisions made by landowners exercising their real property rights in a public policy context reflected in statutory, administrative, and case law.⁸ This open space, and the ways in which it is produced, have evolved over the past century. Each parcel of open space possesses a unique history.

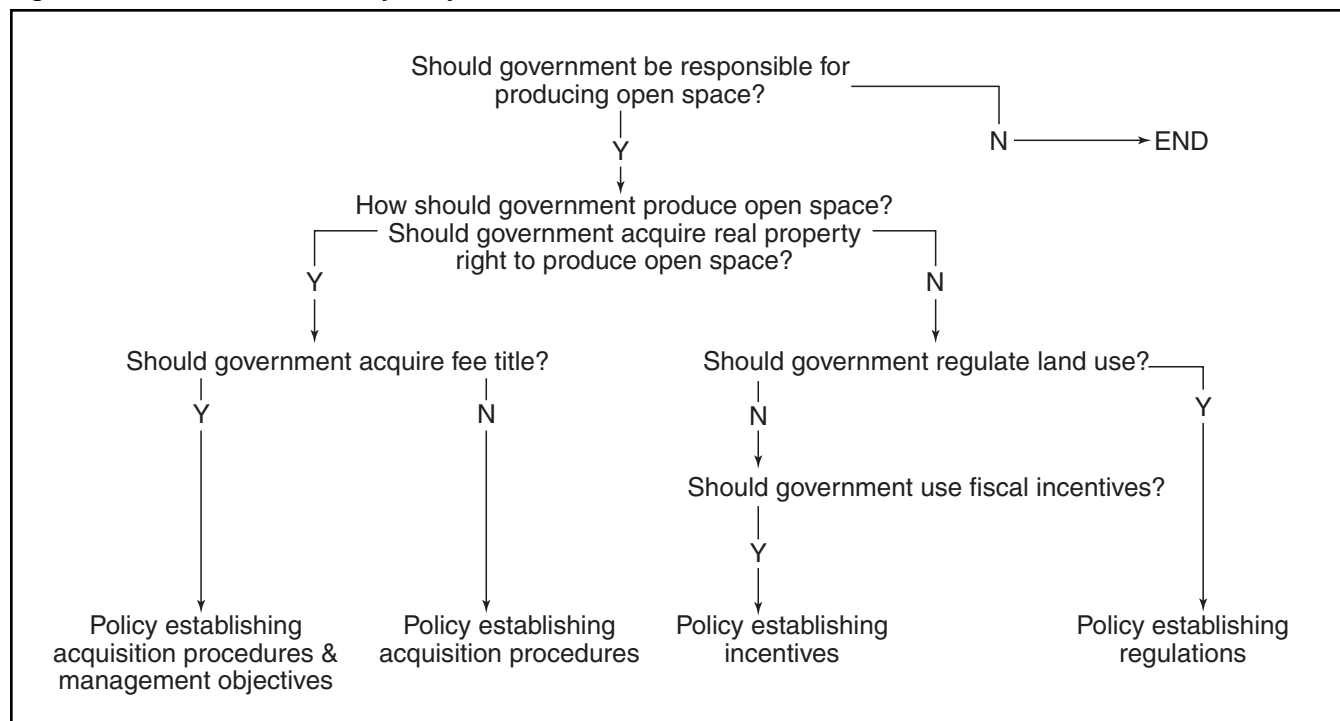
How much of this open space will remain depends on whether governments are convinced that open space is useful, if not vital, and that they have a role and responsibility for producing it. Public policy promoting the production of open space will require an electorate, represented by the elected and appointed officials, supporting legislative, executive, and judicial decisions that permit governments either (a) to acquire

the real property interests necessary to ensure the desired open space is maintained, or (b) to coerce open space landowners to use their land in ways that maintain those characteristics through regulation, through various financial incentives and disincentives, and through the construction of road, wastewater facilities, and other public institutions (fig. 5). There is no “silver bullet” for protecting open space in the Twin Cities Metropolitan Area. Increasing population will be accommodated in new urban areas adjacent to existing urban areas and in the redeveloped old urban areas. Inevitably, as the urban area expands, it will both continue to sprawl and, in some places, become denser. New tools will be developed to allow governments to acquire real property interests and to coerce individuals. Innovative financing and legal arrangements will allow communities, rather than governments, to acquire and maintain open space.

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Figure 5.—A decision-tree for open space.



⁸ Only parts of the public policies that have resulted in the current open space are still represented in current law. Parts of previous policies have been repealed, amended, and superseded over time.