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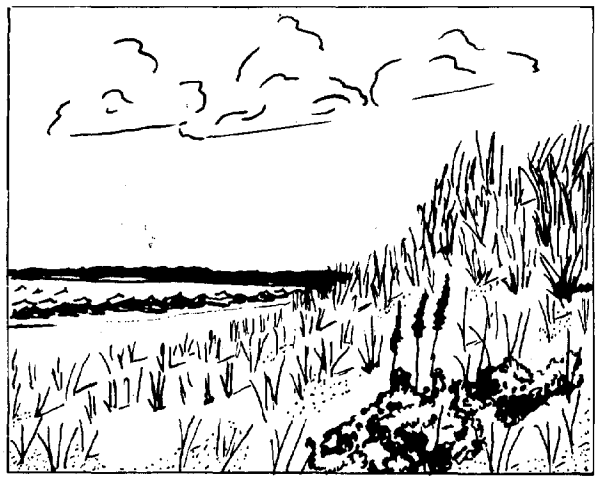
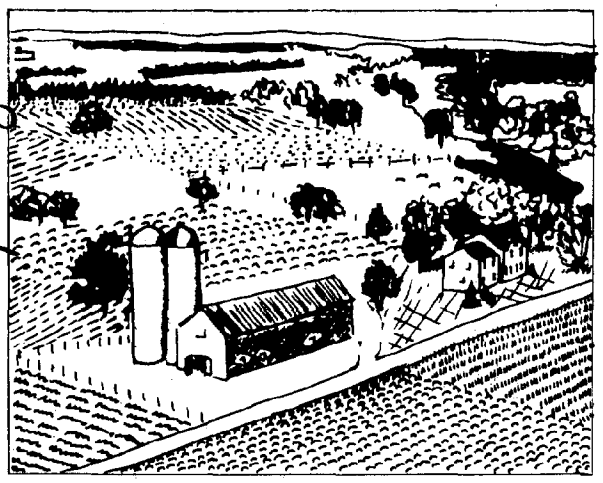
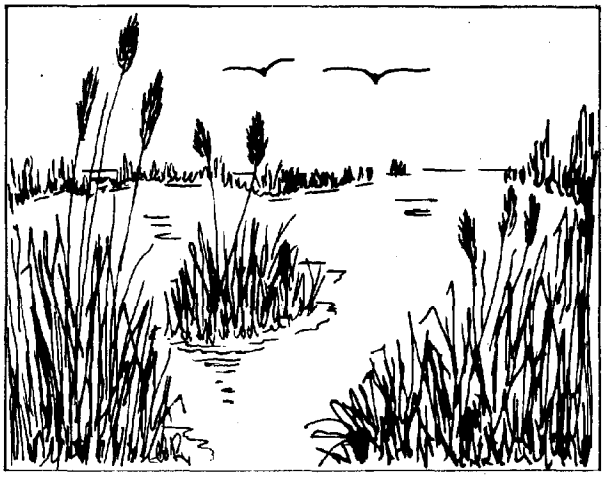


PRESERVING OPEN SPACE

approaches for rhode island communities





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Preserving Open Space:

Approaches for Rhode Island Communities

Land Management
Acquisition
Taxation

Prepared for:

The Rhode Island Statewide Planning Program and
The Rhode Island Community Development Committee

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COASTAL ZONE
INFORMATION CENTER

May, 1978

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Charleston, SC 29405-2413

FORWARD

The coastal zone research project is being undertaken by the Curriculum of Community Planning and Area Development (CPAD) Urban Field Center, Cooperative Extension Service, University of Rhode Island. It is funded by a federal grant from the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, Department of Commerce, through the jointly funded assistance program; and is sponsored by the Rhode Island Statewide Planning Program in conjunction with the Rhode Island Community Development Committee. The project includes this publication, intended to expand the reader's knowledge of the array of techniques available for preserving open space and agricultural lands, particularly those relevant to the coastal zone.

In preparing the paper, the Statewide Planning Program and the Urban Field Center do not advocate any specific approach. The paper is designed to inventory an array of programs and to present an objective appraisal of each. The decision to implement any given technique is left to the local community. It is the community's responsibility to assess its needs, to determine the applicability of a given technique, and to tailor that technique to the circumstances in the community.

The paper examines three approaches: (1) land management or regulation; (2) taxation; and (3) acquisition as techniques to be employed in preserving open space and agricultural lands. The paper will have a Rhode Island perspective. The discussion will cover: definition of techniques implemented in other states and analysis of the advantages and disadvantages of the techniques.

Project staff would like to acknowledge the useful and timely critique on the drafts of this document by the following individuals: Francis Cameron, Thomas Gringalunas, John Kupa, Susan Morrison, Edmond Seay, Thomas Weaver.

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CHAPTER I: INTRODUCTION

This paper is designed to familiarize the reader with the techniques that could be used to preserve Rhode Island's open space and agricultural lands in the coastal zone.

The coastal zone, as defined in the state's coastal resources management program, includes those ".....lands whose use affects or is affected by proximity to coastal waters." Technically, that takes in land within one mile of the coast. More completely, it could include all of the "Ocean State", because virtually all of the state's 1,214 square miles fit this description. Highways lead to the coast and industries throughout the state depend upon proximity to the coast (fishing, tourism, transportation, etc.). All of the state's land uses directly or indirectly may affect the character and quality of its rivers by runoff or deposit of sedimentation, and all of Rhode Island's river basins drain into Rhode Island coastal waters. No point in the state is farther than 25 miles or an hour's drive from the coast. Population and land uses within one mile of the coastal zone directly affect it, yet due to the close proximity to and effect of all Rhode Island's land on the coast, the entire state could be considered the "coastal zone".

Therefore, in presenting open space preservation techniques for the coastal zone, this paper will examine not only those techniques with special reference to coastal areas, such as flood plain zoning, but will consider the full range of methods available for preserving all types of open space, since all of Rhode Island's land could be considered related to the coastal zone.

Chapter I defines the coastal zone, open space, and agricultural land and examines development trends and loss of open space in Rhode Island. Chapters II, III, and IV, respectively, examine land management, acquisition, and taxation techniques for preserving open space. A bibliography of references for more information on these techniques follows.

Definition of Terms

A coastal zone is a dynamic system made up of several distinct areas. These areas may include wetlands, flood plains, river estuaries, salt marshes, mud flats, and tidal pools.

The Rhode Island Coastal Resources Management Council defines the coastal zone as:

> "....lands whose use effects (sic) or is affected by proximity to coastal waters. The Council concludes that for planning purposes such a land area is best described as that area which extends one mile inland from the coastline or to the next inland

census tract analysis zone boundary, where this is greater."1

Such definition is appropriate for use in designating Rhode Island's coastal region becuase:

1. It encompasses nearly all of the state's coastal watersheds.
2. It encompasses many entire cities and towns, minimizing confusion in administering coastal management programs.
3. It allows for convenient use of socio-economic data, such as that from the Bureau of the Census, for use in coastal management programs.
4. It is compatible with land units used in other state planning studies and information retrieval systems such as shoreline use maps and computerized land suitability models developed by the Statewide Planning Program.

Definitions of open space and agricultural lands are numerous and variable. Trying to define these terms to comply with everyone's ideals and needs would be virtually impossible, but the following definitions are those more commonly used in Rhode Island.

The U.S. Soil Conservation Service in Rhode Island defines prime agricultural land as:

> "Prime agricultural land is best suited for providing food, forage, feed, ornamental plants, fiber, sod, and oilseed crops. It has the soil quality, growing season and moisture supply needed to produce sustained high yield of crops economically when treated and managed, including water management, according to modern techniques. "Unique" farmland is that specially suitable for particular crops, such as cranberry bogs."2

Rhode Island's legal definition in the General Laws of Rhode Island, 44-27-2, incorporates and expands on this definition by adding:

> "Any tract of land including woodland and wasteland constitutes a farm." 3

The preservation or use-restriction of prime agricultural land would:

1. maintain and enhance the conservation of natural or scenic resources
2. protect natural streams or water supply
3. promote conservation of soil, beaches, or wetlands including but not limited to fresh marshes, tidal marshes...swamps, bogs, natural river and stream flood plain and banks, areas where ground water accumulates

4. enhance the value to the public of abutting or neighboring parks, forest, wildlife preserves, nature reservations, or sanctuaries or other open space
5. enhance public recreation opportunities
6. preserve historic sights (sic) or
7. promote orderly urban or suburban developments.[4]

Development Trends in Rhode Island

Planning objectives for open space in Rhode Island express a diversity of interests. The state's open space goal appears in Report #22, State Land Use Policies,[5] January, 1975:

> Preserve and protect open space, including recreation and conservation areas, rural and open land, and selected agricultural and forest areas, so as to enhance the total quality of the environment.

Open space areas provide wildlife habitats and recreation opportunities, protect water supplies and water bodies, create buffer zones from development, preserve the natural setting, while additionally creating economic benefits.[6] The state's open space goal of preservation and protection reflects the need to stem the loss of open space.

Development trends in Rhode Island show continuing loss of open space due to population movement into rural areas. The movement is part of a national trend. For the first time in United States history, non-metropolitan areas have been growing more rapidly than metropolitan areas. This is especially true in the northeast.[7] Rural and small-town areas have become the preferred place of residence for large portions of the American public.[8]

Growth has often resulted in increased demands on a town to provide for costly services, such as sewer and water lines. Many residents fear that rapid and uncontrolled growth may threaten the amenities that maintain the quality of life.

Another result of this unguided growth has been the loss of farmland. Agricultural land is open and often level with good drainage characteristics; often it is also convenient to transportation routes (roads or rural routes) which make it desirable and easy to convert to urban uses. High land prices mean that urban uses easily outbid agriculture. There are now fewer than 700 farms left in Rhode Island, and there have been predictions that the state will become farmless.[9] While Rhode Island as a whole has increased by only 20% in population since 1960, most of its rural and suburban towns have been growing rapidly. Much of this growth has occured in the coastal regions as is demonstrated by the growth rates in coastal towns such as Middletown, Narragansett, and North Kingstown. Rapid growth has also been witnessed in towns such as Warwick, Cumberland, and Coventry; the western

interior of the state has grown at a slower rate, as seen in the cases of Burrillville and Foster. (See Table I.)

These development trends appear to be largely suburban-oriented. However, it would be a simplification to consider most of the state a suburb, since the outlying towns have retained much of their rural character. In the rural areas, growth tends to occur in the form of an occasional subdivision or single houses with large lots (over 1 acre) along major roads and is often interspersed with woodland and farms. Thus, large amounts of land remain in rural use despite this growth, as illustrated by the cases of Charlestown, Exeter, Richmond, Hopkinton, West Greenwich, and Coventry (see Table II).

A closer examination of changes in agricultural and open space land use indicates that it would not be too late for Rhode Island communities to implement an agricultural and open space preservation policy if they so desired. Much of the farm land that has gone out of service is marginal; farms located on these lands would have had difficulty operating at a profit even if urbanization pressures had been less intense. Prime agricultural land has generally remained in agriculture. The major exceptions to this trend are in highly urbanized Cranston (which lost 24.8 percent of its 1,615 acres of prime agricultural land between 1960 and 1975) and coastal Tiverton (which lost 6 percent of its 740 acres of prime agricultural land during the same time period). The remaining towns have lost 1.5 percent or less of their prime agricultural lands[10] during the last fifteen years.

It is uncertain how long the movement to the rural parts of the state will continue. Some authorities feel that the trend will be in that direction for quite some time. However, there are forces which may slow the growth of rural Rhode Island. These include:

- increasing construction costs of single family dwelling
- absence of low-income housing projects (such as subsidized housing in urban or suburban areas)
- increasing commuting costs associated with rising energy costs.

The following chapters are concerned with the specific land management techniques that Rhode Island's municipalities can apply to their own community needs.

The techniques discussed should be used to give direction to land management attempts often hampered by insufficient resource materials. As a condensed version of many reference materials, the information will serve the town as an initial source of guidelines for future land management practices.

TABLE I

RI POPULATION CHANGE ESTIMATES: 1970-1980
BY CITY AND TOWN
(IN THOUSANDS)

**CITY/TOWN	1960	1970	% CHANGE	1970	1975	% CHANGE	1975	1980	% CHANGE
*Middletown***	12.6	29.3	131.1%	29.3	15.6	-46%	15.6	19.0	15%
*Narragansett	3.4	7.1	107.3%	7.1	9.5	33%	9.5	10.0	5%
West Greenwich	1.1	1.8	57.5%	1.8	2.5	38%	2.5	2.8	12%
*East Greenwich	6.1	9.6	57.0%	9.6	10.6	10%	10.6	11.2	5%
*North Kingstown***	18.9	29.8	57.0%	29.8	20.0	-32%	20.0	20.5	2%
Glocester	3.3	5.2	51.9%	5.2	6.4	19%	6.4	6.7	4%
*Portsmouth	8.2	12.5	51.8%	12.5	13.0	4%	13.0	13.7	5%
Coventry	15.4	22.9	48.7%	22.9	26.0	13.5%	26.0	30.4	16%
*Charlestown	1.9	2.9	45.6%	2.9	3.7	27%	3.7	3.6	-2%
Scituate	5.2	7.5	43.7%	7.5	8.5	13%	8.5	8.8	3%
Smithfield	9.4	13.5	42.6%	13.5	14.5	7%	14.5	15.5	6%
*South Kingstown	11.9	16.9	41.6%	16.9	21.1	23%	21.1	24.3	15%
Cumberland	18.7	26.6	41.6%	26.6	27.9	4%	27.9	28.9	3%
Exeter	2.3	3.2	41.2%	3.2	4.0	25%	4.0	4.0	0%
*Little Compton	1.7	2.4	40.1%	2.4	2.7	12%	2.7	3.3	22%
North Providence	18.2	24.3	33.6%	24.3	26.8	10%	26.8	28.8	7%
*Tiverton	9.4	12.6	32.7%	12.6	13.5	7%	13.5	14.2	5%
Richmond	1.9	2.6	32.2%	2.6	3.1	19%	3.1	3.3	6%

SOURCE: RI Department of Economic Development-Research Division
RI Statewide Planning Program-Area-wide Water Quality Management Plan

*Represents a coastal community

**Communities are ordered by estimated rates of growth from 1970 to 1980

***Decreases due to Navy withdrawal from Rhode Island

RI POPULATION CHANGE ESTIMATES: 1970-1980
BY CITY AND TOWN (IN THOUSANDS)

*CITY/TOWN	1960	1970	% CHANGE	1970	1975	% CHANGE	1975	1980	% CHANGE
Hopkinton	4.1	5.4	29.2%	5.4	6.1	12%	6.1	6.1	0%
Jamestown	2.3	2.9	28.4%	2.9	3.6	25%	3.6	3.4	-5%
Johnston	17.1	22.0	28.4%	22.0	23.8	8%	23.8	27.5	18%
Barrington	13.8	17.6	27.0%	17.6	17.4	-1%	17.4	17.6	1%
Foster	2.1	2.6	25.2%	2.6	3.1	19%	3.1	3.5	12%
Bristol	14.5	17.9	22.6%	17.9	18.7	4%	18.7	20.1	7%
North Smithfield	7.6	9.3	22.5%	9.3	10.5	8%	10.5	11.0	4%
Warwick	68.5	83.7	22.2%	83.7	88.5	5%	88.5	93.6	5%
Westerly	14.2	17.2	20.9%	17.2	18.2	5%	18.2	18.2	0%
Warren	8.7	10.5	20.3%	10.5	10.6	0%	10.6	11.1	4%
Lincoln	13.5	16.2	19.4%	16.2	17.7	9%	17.7	18.1	2%
East Providence	41.9	48.2	14.9%	48.2	50.8	5%	50.8	54.8	7%
West Warwick	21.4	24.3	13.6%	24.3	26.0	6%	26.0	28.0	7%
Cranston	66.7	74.3	11.3%	74.3	77.0	3%	77.0	81.2	5%
Burrillville	9.1	10.1	10.6%	10.1	11.6	14%	11.6	11.9	2%
New Shoreham	.4	.5	.06%	.5	.5	0%	.5	.5	0%
Woonsocket	47.0	46.8	-.6%	46.8	48.5	3%	48.5	49.0	1%
Pawtucket	81.0	77.0	-5.0%	77.0	74.0	-3%	74.0	75.0	1%
Central Falls	19.8	18.7	-5.8%	18.7	17.9	-5%	17.9	17.6	-1%
Providence	207.4	179.1	-13.7%	179.1	168.1	-6%	168.1	170.1	1%
Newport	47.1	34.6	-26.5%	34.6	30.0	-13%	30.0	33.1	10%

OURCE: RI Department of Economic Development-Research Division
RI Statewide Planning Program-Area-wide Water Quality Management Plan

*Represents a coastal community
**Communities are ordered by estimated rates of growth from 1970 to 1980
***Decreases due to Navy withdrawal from Rhode Island

LAND USE IN RHODE ISLAND BY TOWNS, 1970

(IN ACRES AND PERCENTS)

TABLE II

TOWNS BY COUNTY	FOREST/WETLANDS		AGRICULTURE INTENSIVE		AGRICULTURE EXTENSIVE & OPEN		URBAN RESIDENTIAL		URBAN OTHER		OTHER		TOTAL	
BRISTOL COUNTY:														
Barrington	3111	47%	379	5%	196	2%	2459	39%	113	1%	496	8%	6784	100%
Bristol	2585	40%	1329	20%	459	6%	1609	24%	217	3%	529	7%	6828	100%
Warren	2425	28%	1097	22%	263	6%	942	19%	197	3%	147	2%	5071	100%
County Total:	8251	44%	2805	15%	918	5%	5010	27%	527	4%	1172	5%	18,683	100%
KENT COUNTY:														
Coventry	32,097	83%	975	2%	2141	5%	3473	8%	402	1%	753	1%	39,84	100%
East Greenwich	6641	65%	402	3%	896	8%	1724	16%	365	3%	615	5%	10,643	100%
Warwick	7498	33%	701	2%	1481	7%	8669	37%	2802	11%	2513	10%	23,664	100%
West Greenwich	29,747	90%	535	1%	1023	3%	750	3%	215	1%	602	2%	32,873	100%
West Warwick	1836	36%	103	1%	574	11%	1887	36%	445	9%	385	7%	5457	100%
County Total:	77,846	70%	2716	2%	6115	5%	16,503	15%	4230	4%	4868	4%	112,278	100%
NEWPORT COUNTY:														
Jamestown	2291	37%	791	13%	953	15%	1394	23%	50	>1%	682	11%	6160	100%
Little Compton	8394	57%	2524	17%	2296	16%	1253	9%	8	>1%	142	1%	14,617	100%
Middletown	1097	13%	3759	45%	406	5%	1898	23%	343	4%	882	10%	8367	100%
Newport	944	19%	71	1%	353	6%	2369	46%	435	8%	1045	20%	5217	100%
Portsmouth	4973	33%	4567	30%	1386	8%	2372	16%	631	4%	1530	9%	15,459	100%
Tiverton	13,113	69%	1566	8%	2132	11%	2075	10%	346	1%	321	1%	19,553	100%
County Total:	30,794	43%	13,278	19%	7526	11%	11,361	16%	1812	3%	4602	7%	69,373	100%

SOURCE: Land Use and Vegetation Cover in Rhode Island
U.S. Department of Agriculture, July 1974
Bulletin #200

LAND USE IN RHODE ISLAND BY TOWNS, 1970

(IN ACRES AND PERCENTS)
TABLE II

'OWNS BY COUNTY	FOREST/WETLANDS		AGRICULTURE INTENSIVE		AGRICULTURE EXTENSIVE & OPEN		URBAN RESIDENTIAL		URBAN OTHER		OTHER		TOTAL
ROVIDENCE COUNTY:													
urrillville	31,313	86%	1095	3%	1410	4%	2061	5%	253	>1%	488	1%	36,620-100%
entral Falls	112	14%	0	0%	0	0%	426	51%	223	2%	73	8%	834-100%
ranston	6039	34%	2426	14%	1176	7%	4881	27%	1658	9%	1607	9%	17,841-100%
umberland	11,397	63%	1139	8%	1430	8%	2836	16%	478	3%	785	4%	18,065-100%
ast Providence	2411	26%	181	2%	443	5%	3041	34%	1486	17%	1418	16%	8981-100%
oster	29,558	89%	956	3%	1836	5%	787	2%	85	>1%	237	1%	33,459-100%
locester	30,198	89%	1181	3%	1229	4%	1355	4%	81	>1%	249	1%	34,293-100%
ohnston	10,493	68%	630	4%	829	5%	2506	16%	577	4%	521	3%	15,556-100%
incoln	6865	59%	590	5%	1162	10%	1749	15%	620	5%	776	6%	11,762-100%
orth Providence	834	22%	83	2%	329	9%	1766	48%	245	7%	424	12%	3681-100%
orth Smithfield	11,349	72%	422	3%	1708	11%	1346	9%	393	2%	470	3%	15,688-100%
awtucket	552	10%	0	0%	62	1%	2927	52%	1221	21%	942	16%	5704-100%
rovidence	1321	10%	18	>1%	105	1%	5254	44%	3387	28%	2139	17%	12,224-100%
cituate	30,602	87%	877	3%	1172	3%	2069	6%	85	>1%	434	1%	35,239-100%
mithfield	12,503	71%	658	4%	1604	9%	1749	10%	602	3%	474	3%	17,590-100%
oonsocket	1416	28%	71	1%	300	6%	2221	44%	510	11%	507	10%	5025-100%
ounty Total	186,964	68%	10,327	4%	14,795	5%	36,974	14%	11,958	5%	11,544	4%	272,562-100%
ASHINGTON COUNTY:													
harlestown	22,822	83%	973	4%	912	3%	1620	6%	491	2%	487	2%	27,305-100%
xeter	31,635	88%	1619	5%	1380	4%	855	2%	49	>1%	368	1%	35,906-100%
opkinton	23,071	81%	1684	6%	1403	5%	1730	6%	330	2%	156	1%	28,374-100%

OURCE: Land Use and Vegetation Cover in Rhode Island
U.S. Department of Agriculture, July 1974
Bulletin #200

LAND USE IN RHODE ISLAND BY TOWNS, 1970

(IN ACRES AND PERCENTS)

TABLE II

TOWNS BY COUNTY	FOREST/WETLANDS		AGRICULTURE INTENSIVE		AGRICULTURE EXTENSIVE & OPEN		URBAN RESIDENTIAL		URBAN OTHER		OTHER		TOTAL
WASHINGTON COUNTY,													
Narragansett	5716	54%	375	4%	860	8%	2486	25%	234	2%	791	7%	10,162-100%
New Shoreham	1328	19%	65	1%	4746	68%	269	4%	90	2%	443	6%	6490-100%
North Kingstown	14,025	50%	2675	10%	2174	8%	4029	15%	1640	6%	3139	11%	27,682-100%
Richmond	20,751	83%	2075	8%	993	4%	981	4%	104	1%	309	1%	25,213-100%
South Kingstown	26,048	67%	4198	11%	3014	8%	4125	10%	624	1%	1248	3%	39,257-100%
Westerly	12,990	64%	1036	5%	1556	8%	3199	16%	440	2%	997	5%	20,225-100%
County Total	158,092	70%	14,700	7%	17,038	8%	19,294	9%	4002	2%	7938	4%	221,064-100%
STATE TOTAL:	461,967	67%	46,822	7%	43,396	6%	89,142	13%	22,529	3%	30,124	4%	693,849-100%

SOURCE: Land Use and Vegetation Cover in Rhode Island
U.S. Department of Agriculture, July 1974
Bulletin #200

LAND USE IN RHODE ISLAND BY TOWNS, 1977

(IN ACRES AND PERCENTS)

TABLE II

WNS BY COUNTY	FOREST/WETLANDS		AGRICULTURE INTENSIVE		AGRICULTURE EXTENSIVE & OPEN		URBAN RESIDENTIAL		URBAN OTHER		OTHER		TOTAL
RISTOL COUNTY:													
arrington**	1436	25%	151	2%	248	4%	3085	55%	147	2%	629	12%	5696-100%
ristol	2775	40%	746	11%	578	8%	1624	24%	312	5%	793	12%	6828-100%
arren**	1194	31%	821	22%	353	9%	993	26%	303	8%	148	4%	3812-100%
ENT COUNTY:													
oventry	33,546	84%	1233	3%	917	2%	3005	8%	708	2%	432	1%	39,841-100%
ast Greenwich*													
arwick**	10,761	45%	483	2%	733	3%	8169	33%	2507	10%	1745	7%	24,398-100%
est Greenwich*													
est Warwick*													
EWPORT COUNTY:													
amestown**	4187	64%	563	8%	298	4%	1084	16%	82	1%	455	7%	6669-100%
ittle Compton**	9207	62%	3237	22%	788	5%	1403	9%	41	>1%	182	2%	14,858-100%
iddletown	1079	13%	3926	47%	324	4%	1510	17%	473	6%	1054	13%	8366-100%
ewport	806	14%	127	2%	226	4%	2791	52%	299	5%	1299	24%	5215-100%
ortsmouth*													
iverton	13,579	70%	2295	12%	793	4%	1856	10%	835	4%	195	>1%	19,553-100%
ROVIDENCE COUNTY:													
urrillville	31,667	87%	382	1%	1468	4%	1778	5%	865	2%	460	1%	36,620-100%
entral Falls	123	15%	0	0%	1	>1%	407	49%	220	26%	87	10%	834-100%

OURCE: Department of Community Affairs
Division of Planning and Development
208 Program - Land Use Summary, 1977

* Data not available
** Available data does not coincide bacause of different measurement techniques.

LAND USE IN RHODE ISLAND BY TOWNS, 1977

(IN ACRES AND PERCENTS)
TABLE II

TOWNS BY COUNTY	FOREST/WETLANDS		AGRICULTURE INTENSIVE		AGRICULTURE EXTENSIVE & OPEN		URBAN RESIDENTIAL		URBAN OTHER		OTHER		TOTAL
PROVIDENCE COUNTY, (cont)													
Cranston**	7267	43%	2008	12%	461	3%	3943	24%	1661	10%	1402	8%	16,742-100%
Cumberland**	11,100	61%	1230	7%	1135	6%	3181	18%	988	5%	542	3%	18,176-100%
East Providence	1257	14%	202	2%	218	2%	5126	58%	1270	14%	908	10%	8981-100%
Foster	30,434	90%	804	2%	982	3%	699	2%	982	3%	375	1%	33,459-100%
Glocester*													
Johnston	9602	62%	615	4%	1267	8%	2600	16%	1223	8%	249	2%	15,556-100%
Lincoln**	6434	54%	393	3%	1167	10%	1877	16%	1142	10%	891	7%	11,903-100%
North Providence	890	24%	59	2%	246	7%	1903	51%	286	8%	297	8%	3681-100%
North Smithfield**	11,745	73%	215	1%	1052	7%	1772	11%	1049	7%	231	1%	16,064-100%
Pawtucket	642	11%	0	0%	23	>1%	3306	58%	1075	19%	657	12%	5703-100%
Providence	825	7%	54	>1%	62	>1%	7459	62%	2348	19%	1476	12%	12,224-100%
Scituate**	31,016	88%	882	3%	716	2%	2158	7%	254	>1%	151	>1%	35,177-100%
Smithfield**	11,332	64%	672	4%	1672	9%	1761	10%	1847	10%	507	3%	17,792-100%
Woonsocket	1267	25%	49	>1%	195	4%	2668	53%	548	12%	295	6%	5022-100%
WASHINGTON COUNTY													
Charlestown*													
Exeter	31,600	89%	2961	8%	253	>1%	664	2%	122	>1%	305	1%	35,906-100%
Hopkinton	24,379	87%	1830	6%	328	1%	1382	5%	354	1%	102	>1%	28,375-100%
Narragansett**	4254	46%	351	4%	797	9%	2760	29%	205	2%	908	10%	9275-100%
New Shoreham**	928	14%	1090	17%	3756	58%	370	6%	142	2%	176	3%	6460-100%

SOURCE: Department of Community Affairs
Division of Planning and Development
208 Program - Land Use Summary, 1977

* Data not available
** Available data does not coincide because of different measurement techniques

LAND USE IN RHODE ISLAND BY TOWNS, 1977

(IN ACRES AND PERCENTS)

TABLE II

'OWNS BY COUNTY	FOREST/WETLANDS		AGRICULTURE INTENSIVE		AGRICULTURE EXTENSIVE & OPEN		URBAN RESIDENTIAL		URBAN OTHER		OTHER		TOTAL
WASHINGTON COUNTY													
North Kingstown*													
Richmond*													
South Kingstown**	30,719	77%	4176	10%	593	1%	2990	7%	1020	3%	760	2%	40,258-100%
Westerly	13,679	68%	450	2%	1120	6%	3080	15%	1001	5%	925	4%	20,255-100%

SOURCE: Department of Community Affairs
Division of Planning and Development
208 Program - Land Use Summary, 1977

* Data not available

** Available data does not coincide because of different measurement techniques.

CHAPTER II: LAND MANAGEMENT

A. Introduction

Chapter II will examine land management techniques as a means to preserve open space and agricultural land.

Land management can be defined as land control implemented by means of formal regulatory mechanisms. These mechanisms encompass a broad range of techniques such as zoning, impact analysis, and timing of growth. Land management techniques concern themselves directly with land development and its impact on community goals. Land management techniques can provide appropriate guidance and incentives for local property owners and developers.

Zoning was adopted by Rhode Island and other states, under national model legislation, as a means to regulate land use patterns that would be in the best interest of the health, safety, and welfare of the general public. In Rhode Island, municipalities were officially empowered to zone through the zoning enabling legislation adopted in 1921 as Chapter 45-24 of the General Laws of Rhode Island.

Traditionally, "zoning" as a land management technique is a system of regulating land use, specifying areas to be used for residential, commercial, and public activities and regulating building size, lot dimensions, etc. Zoning, in this traditional sense, has not effectively brought about a desirable pattern of land use. Innovative zoning techniques have evolved and been refined to deal with the shortcomings of traditional zoning. Today, zoning techniques reach far beyond the traditional applications.

This chapter presents a survey of zoning and related techniques that may be used to preserve open space. A table at the end of the chapter summarizes advantages and disadvantages of different techniques.

B. Large Lot Zoning

Large lot zoning is a technique requiring a large minimum lot size for residential development. Usually a lot size from 1 acre (40,000 sq. ft.) to 5 acres (200,000 sq. ft.) or more is required. Low density residential development is the intended result of large lot zoning. It may or may not preserve a rural landscape.

In many areas, large lot zoning has been charged as a discriminatory measure against various racial and income groups. Such cases have been brought before the courts, with mixed results, some favoring the zoning ordinance and some ordering provision for low and moderate income housing--a "fair share" with the region.

Large lot zoning is an appropriate way to make development conform to the physical constraints of the land. While large lot zoning

does preserve open space for backyard recreation, however, it does not effectively maintain open space suitable for public recreation or conservation.

C. Overlay Districts

Overlay districts establish additional requirements for the primary zoning district (residential one-acre, industrial), based on specific hazards and problems such as those outlined in the soil interpretation table prepared for Rhode Island by the United States Department of Agriculture, Soil Conservation Service, and in the report of the United Geological Survey on ground water resources (steep slope, high water table).

The administering officer of the zoning ordinance determines when an overlay district and its requirements regulate the granting of a building permit. The location of the primary structure determines the application of overlay requirements. An engineering soil survey to determine suitability of land for development, upon review of the Soil Conservation Service, supersedes the overlay district map.

Overlay zoning works in the following way in the one town in Rhode Island that uses it (North Kingstown).

1. Use Regulation

   Within the limits of the overlay districts, all requirements set forth in the primary district apply, with the enumerated additions, exceptions, and conditions related to the problem addressed by the overlay.

2. Special Exception

   The zoning board requests the Soil and Water Conservation Districts to make available expert assistance from appropriate agencies. Site plans must be approved by the planning director and town engineer before a building permit can be issued.

3. Wetlands

   Permission to alter a wetland does not alter the restrictions of the overlay district.

D. Single-Purpose Environmental Ordinances

Single-purpose environmental ordinances are often mixtures of traditional zoning techniques and the more technical aspects of performance standards. They deal with the issues relating to maintaining and improving the quality of the community's natural and man-made environment. Certain areas need increased regulation to maintain a quality living standard in terms of air and water quality, soil management, and open space. For example, areas with severe soil erosion problems may require an erosion control ordinance

to protect streams and neighboring properties from damage. Single-purpose ordinances may also be useful to supplement existing bylaws to allow for minimal damage of the area to be developed.

E. Incentive Zoning

Incentive zoning offers various "incentives" to developers to encourage specific kinds of development or to resolve the problems that may be the result of increased development. Often this takes the form of a "density bonus". For example, a developer building an office complex would be allowed to increase density in excess of established standards in return for dedication of street improvements, additional parking spaces, plazas and pedestrian walkways, or other amenities that would create community benefits. In Rhode Island, Warwick allows a density bonus for housing designed for the elderly.

F. Contract Zoning

In contract zoning an agency contracts with an owner to re-zone property, placing greater restrictions on the use of the property than would normally be imposed by the actual zoning ordinance. Often contract zoning limits the use of property to a single purpose. The locality is thus assured that the developer will not change his plans after the parcel is re-zoned, and the locality is able to impose requirements specific to each development.

Several problems may, however, be associated with this set of zoning schemes. If an area's densities are re-zoned the character of the surrounding area will change. This may encourage other areas to attempt re-zoning for their own specific purposes. A municipality's comprehensive plan can be carefully coordinated with incentive zoning to help alleviate these problems.

Contract and conditional zoning often are said to be "spot zoning" techniques. Spot zoning is illegal, undermines the integrity of a zoning scheme, and must be carefully avoided. The ability of a governing body to contract away its authority to zone thus remains a legal and political question.

In all contract zoning (incentive) techniques an individual is allowed to develop land in a manner that does not conform to existing regulations. In return, however, he must provide some community benefit. In this way, contract and incentive techniques relate to providing open space land.

G. Floodplain Zoning

Floodplain zoning provides a rational approach to channeling development away from areas susceptible to flooding. Municipalities can limit the use of land within a floodplain through the zoning enabling act and the fresh water wetlands act of 1971. Under this legislation, property use on floodplains can be limited to those uses where only minimal damage to life and property would be the result of high waters, such as agriculture, recreation, and conservation.

In 1968 the National Flood Insurance Program was enacted to make flood insurance available to communities and individuals who meet federal construction safety standards. In 1973 the Flood Disaster Protection Act amended the 1968 act to require communities with formally identified flood hazard areas to enter the program as of July 1, 1975, and to comply with floodplain management measures as outlined by the Federal Insurance Administration.

Floodplain zoning is currently employed in Rhode Island. A major impetus for it is the National Flood Insurance Program, which sets land use control requirements in order to be eligible for insurance benefits. To meet these criteria, for example, South Kingstown, Charlestown, and Westerly have enacted ordinances regarding the elevation and anchoring of structures along barrier beaches. Inland towns have set up comparable guidelines for their flood prone areas.

Most Rhode Island communities have chosen to enact structural measures rather than land use controls in meeting federal requirements; for example, requiring that houses be built on pilings rather than prohibiting housing construction. While federal regulations encourage use-type controls, Rhode Island communities rarely impose them.

In effect, the availability of flood insurance sustains the high demand for flood prone property while reducing the financial costs and risks of the property owners. Therefore, the federal insurance program tends to increase the value of property and development pressures in floodplain areas and thereby acts as a counterbalance to proper floodplain management, which would provide open space uses.

H. Wetlands Protection

In an effort by Rhode Island to protect its water resources, a number of laws affecting the use of wetlands have been passes.

The Fresh Water Wetlands Act of 1971 establishes as public policy of the State of Rhode Island the preservation of the purity and integrity of the swamps, marshes, and other fresh water wetlands. The alteration of the character of any fresh water wetland must first be approved by the director of the Department of Environmental Management. Such approval will be denied if, in the opinion of the Director, such approval would not be in the best public interest. In the event of violation of the act, the Department of Environmental Management has the power to order complete restoration of the fresh water wetland area, at the expense of the individual(s) responsible for the violation.

I. Coastal Resource Management Council Policies

The Coastal Resources Management Council, also established in 1971, recognizes that the local government has the principal responsibility to plan for and manage land use and development, much of which is of local concern only. The Council has adopted policies, however, to encourage and support local efforts to adopt plans and

zoning ordinances that:

1. recognize the development potential of land in or near existing urban areas and public water and sewer service areas (designated for higher intensity and medium intensity development in the coastal region plan);
2. make a distinction between urban areas (higher and medium intensity development in the coastal region plan), based on land capability and availability of public services;
3. channel development away from agricultural land; and
4. recognize the constraints on development of poorly drained, steep, or rocky soils (land development constraints in the coastal region map).

In addition, the Council directly regulates (through its permit process) coastal wetlands, shoreline protection facilities and physiographical features, and sewage treatment and disposal.

J. Critical Resource or Conservancy Zoning

Techniques for critical resource, critical area, conservation districts, or conservancy zoning are designed to preserve an area's unique amenities. Unique amenities may be described as historic sites, unique plant or animal habitats, ground water recharge areas, wetlands, etc. Under most laws the consent of a board of appeals is required before a conservancy district can be established. The effect of a conservancy district is to rezone land for limited use as agriculture, recreation, forestry, conservation, utilities, and/or other activities, or to set up a special permit system for development in the area. Examples of this technique in Rhode Island are local historic districts, beach zones, and hurricane danger zones.

K. Planned Unit Development

A planned unit development (PUD) is a land development planned as a coordinated complex, usually combining a variety of uses. Often PUD's incorporate a unique housing design, such as "clustering", and use it as a design scheme for development. A planned unit residential development differs from the PUD in that it has only residential uses; industrial and commercial PUD's may also be developed.

A PUD ordinance provision is a means of land regulation promoting large scale unified land development and improvement in the quality of the rural and urban landscape.

PUD employs:

1. a mixture of both land uses and dwelling types;
2. the clustering of residential land uses, providing public and common open space, the latter to be maintained by the residents of the development;
3. increased administrative discretion to a local planning staff, while setting aside present land use regulations and rigid plat approval processes; and

4. the enhancement of the bargaining process between the developers and the municipality.

Enacting new legislation is not the only way to provide for this development alternative. Zoning amendments and conditional use techniques enable the characteristic effects of a PUD to be implemented and enjoyed. Some municipalities have explored the possibilities proposed by the "floating zone' technique, rather than used the concept of a pre-defined PUD district. In general, floating zones are special land use districts that remain unspecified on the zoning map. The specific location of the floating zone is not appointed until an application consistent with the comprehensive plan of a municipality is received and approved. At that time the zone is affixed to a specific lot.

Several Rhode Island communities provide for planned unit development, although the terminology frequently differs.

L. Cluster Developments

Cluster development refers to the process by which lot restrictions are reduced, to enable houses to be grouped, or clustered, near one another. The clustering of units permits an increase in the common open space alloted for recreation and conservation. The philosophy of cluster development advocates development on a site design rather than lot-by-lot basis, thus adjusting the development to the features of the land. Such a philosophy allows a more efficient utilization of both land and services in the community. For example, with clustering, a developer can avoid slopes and wet areas when planning construction and can reduce the length of public service lines and therefore reduce cost.

Clustering has become a popular development alternative to the conventional subdivision in Rhode Island. Currently, there are at least four communities employing cluster zone ordinances: North Kingstown, South Kingstown, Smithfield, and Coventry.

It is important to note that cluster development may refer to three different types of development processes:

1. Cluster Subdivision

   This term applies to a permitted arrangement of a residential subdivision under local subdivision regulations. Rather than subdivide the entire tract into house lots of uniform size, the same number of housing units are placed in lots of differing dimensions to provide greater efficiency and flexibility in land use.

2. Cluster Zoning

   This term refers to a specific area being zoned under the local ordinance to provide for the use of cluster developments.

3. Cluster Development

A cluster development may be a development whose design provides the benefits of clustering, but which does not require changes in the existing zoning regulations or legislation.

M. Exclusive Agricultural Zoning

A municipality may zone farmland for agricultural purposes only. California, Washington, and Oregon already employ exclusive agricultural zoning, and in Rhode Island, the state local land management bill would give the municipalities the authority to create exclusive zones.

This technique has the advantage of being relatively easy to implement. Exclusive agricultural zoning must be accompanied by farm value assessment, to make property taxes related to the existing use. A problem with farm value assessment, however, is that it may mean the loss of tax revenues to a municipality. California responded to this dilemma by granting state tax subsidies to local communities employing farm value assessment. Since the entire state benefits from agricultural land preservation, it is considered reasonable that the state share the costs.

A disadvantage of exclusive agricultural zoning is the relative ease with which it may be suspended. Landowners may seek a zoning change from solely agricultural usage because substantial profits may be gained by selling farmland for residential or commercial uses. (This also means that the technique may encounter considerable political resistance, before it is even tried.)

N. Agricultural Districts

Agricultural districts are intended to protect farmlands by providing economic incentives to farm operators and by restricting the ability of local and state government to interfere with farming.[11] Under most enabling acts a district may be formed by the submission of a petition to a local legislative body by farmers owning adjacent lands. Depending on the nature of state enabling legislation, the formation of an agricultural district may require: (1) a minimum of total acres to be incorporated; (2) an agreement among the land owners to continue agricultural use for the lands; and (3) conformance with state and/or regional land use plans.

The advantages of being in agricultural districts may include: (1) the assessment of land at use value; (2) the prohibition of local ordinances restricting agricultural operations beyond requirements of health and safety standards; (3) requirement of public agencies to select and consider alternative sites before seizing land within a district by eminent domain; and (4) restriction of utility and service expansion, such as sewer and gas lines, that might encourage non-farm development.[12]

Legislation usually requires a re-examination of district boundaries at specific time intervals. If an area experiences significant growth pressures or no longer appears to be viable for agricultural usage, the district boundaries can be changed.

Agricultural districting can be a valuable means of protecting farmlands. The formation of a district assures the farmers in an area that the neighboring lands are committed to agriculture. Use-value assessment eases the tax burden of farmers. Utility restriction makes the lands less attractive to developers and eases the pressure on farmers to sell to developers.

There are several disadvantages involved in forming an agricultural district. These disadvantages may include: (1) loss of property tax revenues; (2) reluctance on the part of farmers to commit land in areas where there is significant development pressure; and (3) failure of districts to be voluntarily formed in semi-suburban areas.

The potential for agricultural districting in Rhode Island appears to be negligible because of widespread urban and suburban development. Whether the clusters of agricultural land found in the state are large enough to constitute districts remains a significant question. Another problem is that clusters of prime agricultural land straddle several towns, requiring the districts to be multi-jurisdictional. If agricultural districting is found to be a desirable approach in Rhode Island, state enabling legislation would be required.

O. Timing and Sequence of Growth

Timing and sequence of growth permit a community to accomodate new development gradually and to ensure that local amenities are preserved. To time the sequence of growth effectively, the community creates a master plan incorporating its present public works capacity (water, sewers, roads, etc.). The plan provides for phased growth. The growth would occur in areas presently serviced and would extend gradually outward following the expansion of services. This extension would occur only when the current area of growth has reached its capacity. Outlying areas would be restricted to low density development and only subdivisions with contractor-supplied services would be permitted.

Timing and sequence of growth can save both energy and money for communities because municipal services are being planned carefully so as to obtain efficiency. The community can control the character of its growth by: (1) avoiding low density sprawl by planning compact development; (2) planning for open space management; and (3) combining with other techniques to further ensure its controlled development.

A disadvantage of this technique is its initial expense. An effective development plan would include detailed public service plans, capital budget studies, and a knowledge of land capabilities.

P. Transfer of Development Rights

Transfer of development rights (TDR) is a recent technique in land use management. As of 1977, only seven TDR ordinances throughout the country had been enacted with the intent to preserve open space and agricultural land.[13] The concept of transfer of development rights begins by establishing a fixed number of property rights possessed by the landowner. These rights exist as entities separate from the land itself. The rights inherent in the possession of land are diverse and vary in definition. Such rights may be sold or transfered from one person to another, while the original owner retains possession of the land.

The allotment of development rights is made by the town in accordance with a master plan. The number of obtainable development rights is determined by the density of development desired. The rights are then allocated to property owners on a scale graduated by the desirability of development for each property. The number of development rights granted increases as the necessity for conservation is seen to decrease. Conversely, the number of development rights required to develop a piece of property increases as the slated desirability of development decreases. A property owner whose land falls within a conservation district receives a limited number of development rights, while the number of rights required to develop that same property is high.

There will also exist property owners whose land will be granted a greater number of development rights than the owner may intend to use. As a consequence, a market situation is created, where development rights are considered a transferable commodity with a value fixed by the fluctuation of market demand. A development rights market must be controlled through the municipality's master plan. The increase in density above the formerly zoned maximum is the incentive acting to attract buyers of development rights. Whatever and wherever new density requirements are established, the new zoning district must be more desirable for development because it is more profitable for the developer. Should a surplus of development rights occur, the municipality must re-establish a demand situation by altering the zone or districts within the framework of the master plan.

Development rights are taxed in a manner similar to real property. For assessment purposes the initial value of the development right would equal the difference between the assessed value of the land for agricultural or lesser purposes, and assessed value of the land for development. This facet of the technique accrues one of its major advantages. Transfer of development rights allows the preservation of open space without tax loss.

Another advantage of adopting TDR ordinances is the uniformity of the application of its restrictions. The random impact of some land-use regulations, such as zoning and its variations, has been a concern to many communities. Under TDR, neither owners of restricted resources nor development property owners are at a disadvantage.

The final advantage of the TDR is its universality and flexibility in application. The TDR can be molded to suit almost any community's needs. It functions as a part of each master plan, designed to meet specific objectives, requiring consistent oversight, thus enforcing careful and sound planning techniques.

The TDR approach is, however, difficult to implement and is not easily understood by various landowners. It requires a great deal of detailed planning. The technique is only workable if there is a willingness to sell development rights in the conservation district, and a demand for those rights in the development district. It should be remembered that unless closely monitored, TDR's may discourage low and moderate income housing, because of the possible increases in the cost of high density development.

TDR's have been implemented in New York City for density control and in Chicago with the intent to preserve historic buildings. As of 1977, there was no record of development rights having been transferred in communities where the intent is to preserve agricultural open space and agricultural lands as in Sunderland, Mass., and St. George, Vermont. Towns seeking to implement TDR's should recognize that it has not been fully tested in most states, and new state zoning enabling legislation is probably required. The applicability of TDR in Rhode Island has been questioned, since there is no specific enabling legislation.

Q. Impact Assessment-Planning

This technique requires an examination of the potential impact of specific land uses. An example would be a town planning board being presented with a proposal for a 35 unit subdivision. The board may ask the developer to provide data reflecting the potential effects development will have on the community. Impact statements often include an assessment of resulting losses and gains from any development in the specified area.

The impact statement prepared by the developer is reviewed by the planning board, commission, or appropriate town body. The statement is intended to develop a framework in which the town is able to see the significance of even the smallest development.

The developer may then be required to comply with development standards established by the community that relate to impacts, before being able to proceed. Such standards may include: (1) environmental impact; (2) additional strains on the town's public services; (3) traffic and population density changes; and (4) impact on available recreation facilities.

Communities using impact assessment find that they have acquired an additional information source. This increased knowledge often has a direct application to their land control systems:[14]

1. It provides for more refined data for the establishment of districts and compatible social activities. Communities are able to control their developments effectively through

proper identification of impacts.

2. Some of the impact measurements have been incorporated into the actual controls in order to create performance zoning or impact zoning.
3. The impact information also gives the community an independent information base from which to negotiate with developers within the context of flexible zoning techniques.

The main disadvantage of impact assessment planning is the expense and time requirement to complete a thorough assessment on every development application. A community must have extensive technical expertise to conduct an impact assessment. Maintaining the large data bank needed for the technique is expensive. Staff time that could be used elsewhere must be spent on the technique. Developers may be discouraged from building in the community by the long period of time required to review a proposal.

A form of impact assessment is currently used by the Rhode Island Coastal Resources Management Council. The socio-economic consequences of certain land use activities on the coastal zone are assessed in terms of "physical location, economic and institutional requirements; environmental impacts; and socio-economic consequences including potential impacts on other uses and activities" (State of Rhode Island, Coastal Resources Management Program, Spring, 1976, page A-5).

R. Conclusion

The advantages and disadvantages of land management techniques for preserving open space land are summarized in Table III.

TABLE III
ADVANTAGES AND DISADVANTAGES OF DIFFERENT LAND MANAGEMENT TECHNIQUES FOR OPEN SPACE LAND PRESERVATION

TYPE OF TECHNIQUE:

Large Lot Zoning:

Advantage:	May preserve open space in a community.
Disadvantage:	Creates high housing cost because of large lot size. May be challenged as exclusionary. Does not provide a contiguous tract of open space; may be visually and aesthetically ineffective; open space is not very usable.

Flood Plain Zoning:

Advantage:	Establishment of strict safety standards for flood hazard areas.
Disadvantage:	Applicable only to a special kind of open space.

Critical Resource or Conservation Zoning:

Advantage:	May be able to protect critical resources.
Disadvantage:	May be tax problems involved.

Contract Zoning:

Advantage:	Provides greater flexibility in regulating development.
Disadvantage:	More costly to administer. More applicable to regulating development; preserves open space only indirectly.

Incentive Zoning:

Advantage:	Adds flexibility and encouragement to standard ordinances.
Disadvantage:	More applicable to regulating development; preserves open space only indirectly.

CHAPTER III: LAND ACQUISITION

A. Introduction

An effective means of controlling land in municipalities is the power to acquire the title to land either by gift, by outright purchase, or by eminent domain. Municipalities are enabled under the Rhode Island Open Space Conversion Law of 1965 to acquire full title to land ("fee simple") or partial interest (easements) to protect open space and agricultural land. In order for acquisition to be used, however, a city or town must be able to procure the needed funds.

Chapter III examines the land acquisition techniques (such as land banking and land trust) available to Rhode Island's municipalities for the purpose of preserving open space and agricultural land.

B. Acquisition of Different Degrees of Title to Land

1. Fee Simple

Full purchase of the title of the land is the easiest and usually most expensive way of controlling the contractual rights of land. Fee simple acquisition may be hard for some communities or organizations to afford. Buying of land over a period of time in agreement with the land owner is a more practical technique. This spreads out the capital gain tax for the owner, while freezing the cost of the land for the town. The town might also lease back parts of land for use in accordance with the overall plan, or achieve the same purpose by buying selected parcels of land.

2. Less Than Fee Simple

Buying one specific right or interest of a piece of land may be all that is needed for a municipality to achieve its specific goal. This allows the municipality to keep the land on its tax rolls.

a. Rights of Way

Rights of way are a form of easement that gives access to use of, access to, or access across property. Purchase of rights of way, while not a technique specifically aimed at open

space or agricultural land preservation, can either facilitate or impede such programs. As an impediment, for example, a landlocked parcel of land may be preserved from use if no right of way is present. Access to that land is possible, however, and use might (if authorized) occur, if a right of way is granted.

For the most part, though, rights of way can be used for water and beach access and for public access to other recreational resources. The Green Acres Act (General Laws of Rhode Island, Chapter 32-4) was aimed at, among other purposes, obtaining easements or rights of way to conservation and recreation land. Another act created the Commission on Discovery and Utilization of Public Rights of Way, whose duties have been assumed by the Coastal Resources Management Council. These duties include the discovery of public rights of way to the water areas of the state, as well as defining, marking, and opening those rights of way for public use where feasible. Under this act, state departments controlling state owned land close to or adjacent to public rights of way are authorized to provide this land for public parking.[15] Land may also be acquired and developed for parking.

b. Easements

All landowners have a variety of rights associated with the ownership of a particular piece of land. One way of acquiring the use of a specific right(s) is the use of an easement. Easements are agreements which "run with the land, and apply to subsequent owners, unlike a covenant." The easement is held by someone who has a proprietary interest. Conservation easements are provided by Rhode Island legislation, Chapter 34-39, "Conservation and Preservation in Real Property."

An easement may be obtained for a short term period or in perpetuity. Most perpetual easements have a "reverter clause" that provides for the return of the easement rights to the owner if the purpose for which the land was acquired is abandoned.

There can be positive or negative easements. Under a "positive easement", specific rights are required to use the land for specific purposes. A negative easement restricts uses to preserve a specific feature (natural, historic, etc.).

Scenic or conservation easements are "negative easements" that are acquired to benefit both the landowner and municipality. The landowner benefits because a specific portion of this land is being preserved, and this may enhance the value of any adjoining parcels of land. The easement may be accompanied by property tax benefits taxing the land as open space rather than at its highest use potential. These are direct savings to the landowner.

C. Different Methods of Acquisition

1. Gifts - Voluntary Donations

Gifts can be a more important source of land than is generally recognized. Federal income tax provisions, by permitting the deduction of charitable gifts from income during the five years after donation and by excluding appreciation in the value of donated property from the donor's taxable income, provide incentives for donations. Federal estate tax laws do not provide for a donation incentive, and as a result large tracts of land are lost to developers. Land owners should be made aware of the benefits of voluntary donations, either to the local government or to a non-profit organization, such as the Audubon Society.

Donated land may need maintenance and many towns will not accept the responsibility of the added cost or the loss of town's tax revenue. Endowments or alternate funds may be set up to cover maintenance and management costs. If this aspect is not considered, many land donations will be turned down.

A person or trust may donate land to an agency or foundation for the purpose of preservation, conservation, or a specific public recreational activity. This approach to the acquisition of land has proven beneficial to non-profit organizations who do not have the funds to acquire land at the normal market value.

There are several methods of donating land. The owner may donate all the land at once and retain a life tenancy on the house and immediately adjacent property. Alternatively, the property may be donated now and the main house left to the trustee in the landowner's will. If the landowner wants his or her children to be able to use the house, a leaseback arrangement could be developed for them.[16]

Landowners may impose, through legal instruments, a variety of conditions on the transfer of their property. Some may value their land for its ecological attributes and thus stipulate that its plant and animal habitats be undisturbed. Access may also be limited. For example, land may be donated to a nature education center which would permit only carefully supervised access. Although communities may resent such stipulations, even limited-access land offers some of the advantages of open space.

An alternative to fee simple or outright donation is the donation of easements or partial title. Both negative and affirmative easements may be donated. An affirmative easement gives the donee the right to interfere with certain "possessory rights" of the donor. For example, the owner may grant the town the right of entry so that nature trails could be set up through the property. A negative easement requires the owner to refrain from certain activities such as the cutting of trees.[17]

Perhaps the major advantage of land trusts is that they are an inexpensive way to preserve open space. The principal costs are loss of tax revenue and maintenance of land.

2. Land Trusts

Land trusts can be used by communities to preserve open space if there are private landowners interested in donating their land or easements. A trust is legally established to accept donations and manage the land. Donation to a private trust means that the maintenance costs associated with land and other problems do not fall to the town government.

As mentioned above, the landowner receives significant federal income tax deductions from a land donation. Significantly lower property taxes may also result, since the land may be taxed at its open space rather than development value. The owner also has the advantage of knowing that the land will be preserved in perpetuity as open space.

3. Purchase

Communities may purchase open space land with local state, federal, or private funds or a combination of funding sources.

The effectiveness of open space purchasing programs is being threatened by rapidly increasing land prices. If land prices are not reduced by means acceptable to local government and property holders, the purchasing powers of the local government will be greatly reduced.

In the near future, it may not be feasible or acceptable for local governments to purchase land. There have to be alternate mechanisms for acquisition and protection of open space land.

a. Purchase of Tax Delinquent Lands

Towns and cities often attempt to acquire land selling at a reduced price because of delinquent payment of taxes. The municipality may be able to acquire land to serve as conservation buffers, natural preservation areas, and recreational facilities. The foresight of the local government is important in allocating funds in the budget to acquire such lands

b. Purchase of Development Rights

Traditionally, property ownership has entitled the owner to mineral, air, water, development, use, and other rights. When title to the property is transferred, the entire "bundle of rights" is likewise transferred. A little more than 100 years ago, the concept of separating and disposing of these rights individually, rather than as a "bundle", came about as mineral rights were sold to another party while the original landowner kept the remainder of the rights.

A more recent concept involves development rights, or controlling development but not holding title to or using property. Development rights may be handled through purchase or transfer. (See Chapter II for a discussion of transfer of development rights.)

Purchase of development rights is really similar to purchase of easements. Transfer of development

rights is more novel; it involves buying the rights to develop a parcel of land and transferring them to another property where different densities are allowed. Both purchase and transfer of development rights can be used to preserve open space and agricultural land. Both should be based on a comprehensive or open space plan.

The advantages of purchase of development rights are fourfold:

1) The purchased development rights scheme accomplishes permanent preservation of open space or agricultural lands, because the development rights themselves are withdrawn from the landowner's deed in perpetuity. Not only are the rights acquired permanently, but they can be acquired while the land is still being utilized by the owner.
2) The designation of conservation zones limits and controls development and urban sprawl.
3) Preserved land remains on the tax rolls, although a lower assessment should be made in order to reflect the loss of development rights. (Unlike transfer of development rights, however, there are no parcels of increased density to offset the revenue loss to the town.)
4) Like transfer of development rights, purchases of development rights can be adopted by legislation or amendment to the municipal zoning ordinance.

There are two major disadvantages to purchase of development rights:

1) Since the state or municipality must purchase the development rights, the cost can be quite high. While the cost of purchasing development rights is less than purchase of the land in fee simple, the rights are often more than half of the market value of the land with all rights attached. The Rhode Island Department of Environmental Management estimates $2,000/acre for agricultural land. Such cost raises questions of funding mechanism as well as overall budgeting.

2) Unless legislation is carefully drafted, the legal issue of "taking" may arise; that is, if land is designated as a conservation zone from which development rights are to be purchased, the action of designation may constitute an uncompensated "taking" unless renumeration follows immediately. This relates to the issue of deciding what land qualifies to be purchased under such a program.

Purchase of development rights is authorized for Rhode Island municipalities through various laws. The Conservation of Open Space Act, the Conservation Commission Act, and the Green Acres Act authorize purchase of any kind of interests in real property (which includes development rights) for open space purposes. However, only the Green Acres Act provides funding for acquisition, and its funding has been expended and has not been reappropriated in recent years. In the past, communities have purchased full title to land rather than development rights.

4. Eminent Domain

Another way that open space can be preserved is by condemnation or the power of eminent domain. Courts in other states have upheld the use of eminent domain to acquire parks and environmentally significant land.[18] Rhode Island municipalities have the authority to condemn land for recreation and conservation through General Laws of Rhode Island, Chapter 32-4, the Green Acres Land Acquisition Act.

An advantage of eminent domain is that localities can choose the lands they want to preserve. They do not have a similar leeway with techniques such as land trusts. Eminent domain also assures the landowner of compensation, while police power regulations may deprive a landowner of use without compensation.

An important advantage of this technique is that open land can be permanently acquired through eminent domain. There is no threat of a zoning change or of a court dispute over an easement that could result in the conversion of the land into urban use. The only way that the usage might change would be for an alternate public use, such as highways or transmission lines.

A disadvantage of eminent domain is that it may be costly. It would be expensive to acquire and maintain the land, and court challenges to valuation may grossly inflate its price. Also localities would probably encounter political resistance were it to acquire large tracts of land through eminent domain.

5. Land Banking

Land banking is a technique that has been used to plan urban growth and permit more effective use of open space. The technique involves government acquisition of private land around cities, often through eminent domain, and selling it to developers for urban use. The approach is similar to redevelopment and industrial development by public agencies.

There are several advantages to this technique. It can provide for a more orderly pattern of growth by preventing leapfrop development and urban sprawl. Government control of the land market may lower the cost of housing since land values would be less inflated.[19] Parcels can be set aside for low and moderate cost housing and recreational land. Lank banking can remove land from premature pressure and retain the land in agriculture, recreation or other open space uses, until it is actually needed for urban uses. Leasebacks can provide a replacement for revenue forgone by property taxes. Revenue is also produced if a profit is realized on the sale of the land. Land banking can thus be used to set aside land for open space use, to bring about more compact development, and to control the timing of development.

A major disadvantage of the land banking technique is its high initial cost. The governmental unit employing land banking must have substantial funds with which to acquire the land. However, a land banking concern may, over time, become self-supporting. The profits from the resale of the land can be used to purchase other land.

Most of the disadvantages to land banking are political and administrative. Many would not agree that government should become so deeply involved in development transactions, and considerable staff would be required to plan and execute such a program.

CHAPTER IV: TAXATION

In today's land market, there are increasing pressures to convert open space and agricultural land to more intensive uses. One factor behind this shift is the high property taxes that landowners face. Urbanization and suburbanization have created development pressure, leading to increased demand for land, and have also created a demand for municipal services. Municipal funds to provide sewers, roads, schools, bus transportation, and other services are required to meet the needs of the new suburbs.

The single most important source of revenue for a municipality is the property tax. Increased tax rates or revaluation of the tax rolls have increasingly been necessary to generate the revenue needed to provide services for new development.

Taxes for all lands are determined by fair market valuation of the property, meaning the property is assessed at its highest and best use rather than the actual use for which the land is utilized. Such a taxation system places a large tax burden on land uses which do not demand the high level of services being demanded by new development. Owners of open space land taxed at fair market value often find that the tax burden is too costly to continue using their land for low intensity uses as farming, forestry, or open space. These high taxes often force the conversion of land to industrial, commercial, residential, or other high intensity use.

In Rhode Island it was found that taxes amounting to over 20 percent of net farm revenue put "definite" pressure on commercial agricultural land; while taxes of between 10 and 20 percent put "considerable" pressure on such lands.[20] In 1973, Rhode Island property taxes averaged 29.1 percent of farm income. Only Massachusetts with 40.6 percent, New York at 31.4 percent, and New Jersey at 31.5 percent of net farm income, taxed at rates amounting to higher percentages than Rhode Island. The national average was 8.1 percent of net farm income.[21]

Realizing that fair market valuation could force owners of farmland, forestland, and other open space land to sell or convert their land to more intensive uses, and that such land is a precious resource worthy of preservation, many states enacted laws to deal with this problem. Maryland, in 1956, implemented the first tax law to encourage preservation of farm, forest and open space land by allowing it to be taxed at use value[22] rather than at fair market value.[23]

Additional state legislatures adopted the use value concept and implemented similar laws. Currently 41 states have use value assessment laws.[24] Rhode Island implemented G.L.R.I. 44-27-2 "Taxation of Farm, Forest and Open Space Land" in 1968, declaring,

> "...it is in the public interest to encourage the preservation of farm, forest, and open space land in order to maintain a readily available source of food and fiber products close to the metropolitan areas of the state, to conserve the state's natural resources and to provide for the welfare and happiness of the inhabitants of the state."

Additionally, the Rhode Island act declares,

> "...it is also in the public interest to prevent the forced conversion of farmland, forest and open space land to more intensive uses as the result of economic pressures caused by the assessment thereof for purposes of property taxation at values incompatible with their preservation as such farm, forest and open space land...".

Under this act an owner of such land must apply for its classification as farm, forest, or open space land. The assessor of each municipality determines if the land qualifies for designation and, if so, places it on the municipal assessment list as such. Rhode Island's Local Taxes Act (G.L.R.I. 44-5-72) directs that land classified as farm, forest, or open space land in accordance with the Farm, Forest and Open Space Act (G.L.R.I. 44-27) be assessed at use value. The Local Taxes Act provides that,

> "All property liable to taxation shall be assessed at its full and fair cash value, or at a uniform percentage thereof, not to exceed one hundred percent, to be determined by the assessors in each town or city; provided, however, that in assessing real estate which is classified as farm land, forest or open space in accordance with Chapter 27 of the Title (F,F,OS Act) the assessors shall consider no factors in determining the full and fair cash value of said real estate other than those which relate to said use without regard to the neighborhood land use of a more intensive nature."

After experience with administering use value assessment laws in the 1950's, various states found that land speculators were profiting by the law. Speculators would buy land,

especially farmland on urban fringes, and hold it until the time for development was right. While awaiting such a point in time, the speculator would enjoy the tax breaks allowed by use value assessment laws. Speculators would farm the land at low intensity or rent the land back to the farmer who initially sold the property.

Unwarranted profit for speculators in the form of tax abatements was not the legislative intent of the use value laws. Legislatures, therefore, amended their laws or adopted new ones with restrictions aimed at curtailing the abuse of the law and at better tailoring laws to their major purpose, to help stem the conversion of open space land to more intensive use by assessing land by its use value rather than at its development potential.

In the attempt to eliminate windfalls to speculators, states employed varying restrictive methods which provided eligibility requirements, criteria for classification of land, or penalties for conversion to developed uses. Some of these restrictions include:

- Ownership Restrictions - restrictions are placed on ownership of the land, limiting ownership to state residents, individuals (rather than corporations), or farmers/foresters actively engaged in working the land.

- Land Restrictions - restrictions are placed on the land, limiting eligibility for use value assessment by specifying, for example, a minimum number of acres, a certain level of productivity, or a minimum level of gross income derived from agricultural land that must be met for land to qualify for use value assessment.

- Time Restrictions - various laws require owners to contract to keep their land in its current use for some specified number of years. California's act requires dedication of land to its classified use for ten years.

- Penalties for Conversion - penalties for conversion of land to more intensive uses are levied to act as a deterrent to speculators. Usually, the penalties are in the form of "roll back" or back taxes to which the property would have been subject.

Rhode Island's Farm, Forest, and Open Space Law incorporates some of these restrictions. Farm, forest and open space land

are limited by legal definitions in the act. Certification of forest land by the Department of Environmental Management is required. Criteria for classification of farm land by assessors are listed, although some feel that the criteria are insufficient. Section 39 of the Local Taxes Act (G.L.R.I. 44-5-39) subjects land converted from farm, forest, or open space that had been assessed at use value to additional taxes - roll back taxes - in the amount of the difference between taxes paid at use value and taxes that would have been paid at fair market value for the current year and the two preceding years.

In theory, use value assessment can be a valuable tool in preserving open space land. Use value assessment can alleviate the tax burden on farmers, which cuts into farm income and forces them to sell some or all of their land, the source of their livelihood. It can allow farms, woodland, and open space to be preserved more readily.

However, nationwide experience has shown that the use value technique has not brought about the intended results. A Maryland study found that the use value assessment laws produce a slight delay in conversion of farmland to more intensive uses (about two years), but that the technique creates a loss of tax revenue not necessarily commensurate with the advantages of saving the farmland.[25]

There are a number of problems associated with Rhode Island's use value assessment, which make it an unsuitable technique to preserve open space permanently. First, the roll back tax provisions are a minimal deterrent to owners or speculators. If land is being sold for intensive use, the capital gains generated by the intended conversion far outweighs the two year tax penalty enacted for its conversion. A longer roll back period of ten or fifteen years, as provided in Maine's use value law, a roll back conveyance tax based on market value in the year of conversion, as in Connecticut's law, a capital gains tax as in Vermont, or a restrictive agreement that ties up land use for a specified time period, such as California's law which requires ten years (with strict penalties for breaking the agreement) might provide a stronger deterrent. Yet a deterrent cannot be too strong, or farmers will not participate.

Secondly, roll back taxes without interest charges (as Rhode Island's are) amount, in effect, to an interest-free loan to the owner until the land is sold for development, at which time the loan falls due.[26] Interest charges at rates commensurate with commercial lending institutions might provide additional restrictions to deter abuse of use value assessment.

Thirdly, it may be an unfair burden to redistribute the tax loss over one municipality. Since the tax revenue requirements of a municipality are constant, the cost of tax reduction for open spaces is distributed among all taxpayers in the municipality. While this may be a reasonable price to pay for the public benefit of preserved open space, that benefit might be seen to be a benefit for all of the states residents. In this view, compensation in some form of municipal subsidies could be provided. A technique known as subvention, has been instituted for prime agricultural land under the California Land Conservation Act.[27] Under this act the state makes up a portion of the tax revenue lost by school districts and municipalities resultant from use-value assessment.

A major advantage of a subvention scheme is that it can mitigate local resistance to special assessment by reducing the property tax loss involved. Subvention is most effective if used for a relatively select area such as prime agricultural lands. It allows the state as a whole to share the burden of use value assessment for farmland and open space. If subventions were employed on a wide basis, however, their cost could be prohibitive.

Subventions are probably best employed with other land use regulations such as exclusive agricultural zoning or binding contracts. Were subventions used alone, the state would be in effect subsidizing the land speculator. The landowner could convert land to a higher use while the state would be paying a large portion of the land's property taxes.

To date, participation in Rhode Island's use value assessment program has not been particularly high. As shown in Table IV, in 1976, town tax rolls show 502 parcels in the state, in nineteen communities, being assessed at use value.

Why has participation been limited?

One reason might be lack of widespread knowledge of the act and difficulty in applying the law. Owners wishing to have land assessed at use value must apply to the town assessor each year, even if the land has been classified as eligible in previous years. In order to make participation easier, eligibility could continue from year to year, with no effort required by the owner to reinstate the claim for use value assessment.

TABLE IV
LAND ASSESSED UNDER
RHODE ISLAND FARM, FOREST AND OPEN SPACE ACT
1976

TOWNS	NUMBER OF PARCELS
Barrington	42
Burrillville	33
Charlestown	1
Exeter	13
East Greenwich	176
Glocester	5
Jamestown	33
Lincoln	14
Middletown	3
Narragansett	19
Newport	1
New Shoreham	21
North Kingstown	24
North Smithfield	34
Smithfield	20
South Kingstown	12
Tiverton	1
Warwick	33
West Greenwich	17
TOTAL	502 Parcels

Source: 1976 Town Tax Rolls
Department of Tax Equalization
Rhode Island Department of Community Affairs

Additionally, participation may be low due to de facto use value assessment. In some Rhode Island towns, especially rural ones, land is not currently under development pressure and property tax revaluation has not taken place. Taxes are, in effect, based on the original purchase price of the land. Since land may have been purchased a number of years ago, taxes do not reflect the current market value of the land. There is, then, no need to apply for use value assessment, because taxes are relatively low. However, when development pressure or revaluation bring about higher taxes, a mechanism for automatic eligibility should exist. To increase participation, all lands that can be considered farm, forest or open space should automatically be included in the program, if preservation of open space is the ultimate goal. Such is the case in Indiana and Maryland.

The fifth reason for the limited success of the Farm, Forest, and Open Space Act as a preservation technique has been the implementing authority, the tax assessor. Since the ultimate determination of land as farm, forest or open space is left to each assessor (except that forest land must receive state certification) there exists the potential for wide variation in application of the law among municipalities. The wording of the law is quite vague and could more clearly spell out the criteria for classifying land so that discretionary judgement need not interfere with preserving open spaces.

An additional problem, of an administrative nature, exists with Rhode Island's Farm, Forest and Open Space Act. The law does not provide for an accounting system of land assessed at use value. For example, the Tax Equalization Division of the Department of Community Affairs has statistics on the number of parcels in various towns under use value assessment; however, the number of acres under this program is unknown. The number of parcels assessed at use value changes from year to year, with the sale or change in land use of these parcels. In order to keep a current accounting of the amount of land assessed at use value and to determine the success of use value assessment in preserving farm, forest, and open space in Rhode Island, the law should provide for an accounting system at a local or state level.

Footnotes

1. Coastal Management Program State of Rhode Island, September 1977.

2. G.L.R.I. 49-27-4.

3. G.L.R.I. 44-27-2.

4. G.L.R.I. 44-27-2.

5. State Land Use Policies Report #22, Statewide Planning Program (RI) p16.

6. Open Space is a major factor in attracting tourist trade; additionally, open space, in the form of agricultural and forest areas provides a livelihood for farmers and foresters.

7. Council on Environmental Quality; Environmental Quality: The Seventh Annual Report of the Council on Environment Quality. Washington: U. S. Government Printing Office 1976.

8. Ibid p297.

9. Leslie William, Land Use Legislation in the Northeast: Rhode Island. A Northeast Regional Research Project, 90 Report Northeast Regional Center for Rural Development, Cornell University, Ithica, New York. November 1975.

10. Data Collection by Arthur D. Jeffrey's and Tom Martin.

11. Municipal Environment Ordinances Volume I. Richard Oliver Brooks. University of Rhode Island.

12. Legher, William, Land Use Legislation in the Northeast. Northeast Regional Center for Rural Development, Cornell University, Ithica, New York (December 1975) p29.

13. Land Use - Town Choices in Todays World - Procedings of a National Symposium. Soil Conservation Society of America 1977.

14. Meshenberg, J. The Administration of Flexible Zoning Techniques. Planning Advisory Service Report #318 (1976).

15. If such a plan is in accordance with the existing or intended use and subject to the approval by the municipality government.

16. Whyte, William H., The Last Landscape, Doubleday and Company, Inc., Garden City, New York 1968.

17. Brennan, Russell L., Private Approaches to the Preservation of Open Land. New London: The Conservation and Research Foundation 1967 p22-23.

18. Calvani, Terry. Eminent Domain and the Environment in Edwin M. Rams (ed) Valuation for Eminent Domain Englewood Cliffs: Prentice Hall Inc. 1971 p413.

19. Hackman, Mark Nelson, A Strategy for Expanded Use of Land Banking, Cambridge MIT-MCP Thesis 1974 p32.

20. Davis, Richard B. and Arthur Jeffreys, The Taxation of Rural Land of Rhode Island. (Mimeograph 1961) p2.

21. Gustafson, Gregory T. and L. T. Wallace, Differential Assessment on Land Use Policy: The California Case, 40 Journal of the American Institute of Planners. November 1975 p382.

22. Use value-worth on property at its existing use.

23. Fair market value worth of property at its potential highest and best use.

24. Council on Environmental Quality - Untaxing Open Space: An Evaluation of the Effectiveness of Differential Assessment of Farms and Open Space. Government Printing Office, Washington, DC 1976.

25. Henke, J. T., Preferential Property Tax Assessment for Farmland, 53 Oregon Laws Review 177-30, Winter 1974.

26. Council on Environmental Quality, Untaxing Open Space: An Analysis of Differential Assessment on Farms and Open Space. Principal Investigator: John C. Keene (Washington: U.S. Government Printing Office, April 1976) p71.

27. California Government Code 51 201 et seq.

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