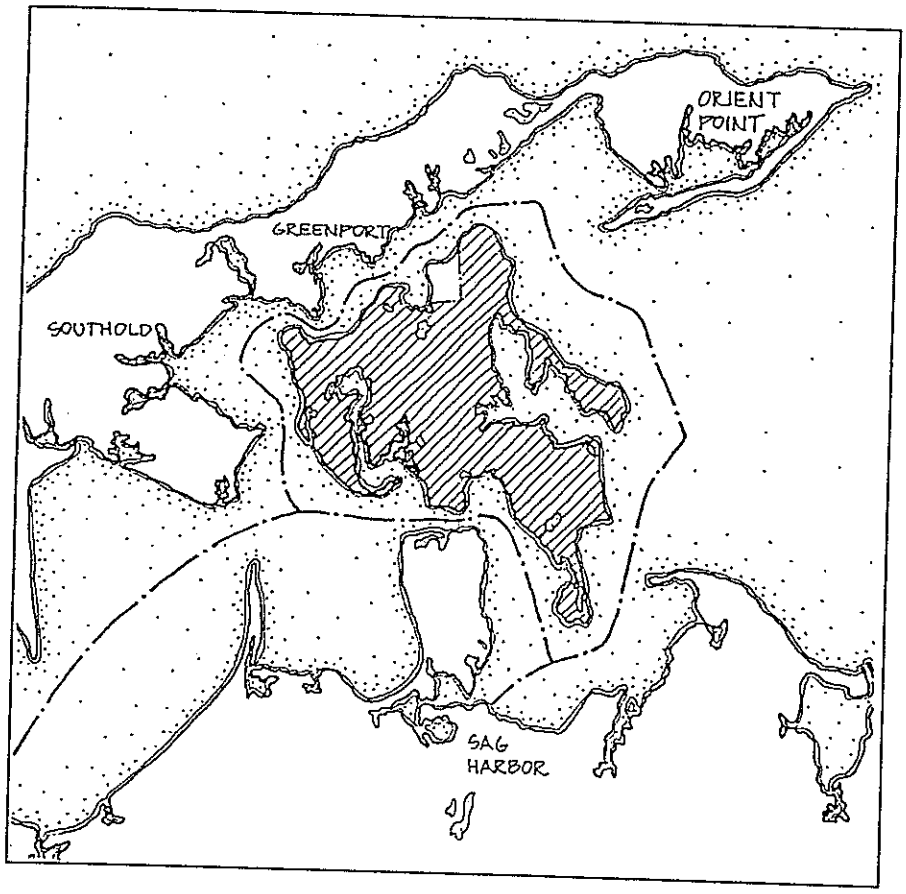
FINAL GENERIC ENVIRONMENTAL IMPACT STATEMENT: SHELTER ISLAND COMPREHENSIVE PLAN

Prepared for the Comprehensive Plan Committee, Shelter Island, NY
February 8, 1994



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I. DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT

The Draft Generic Environmental Impact Statement: Shelter Island Comprehensive Plan (DGEIS), prepared by Philip B. Herr & Associates in association with Sarah James & Associates, July 26, 1993, subject of a hearing held on August 20, 1993, is hereby incorporated into this Final GEIS by reference. Although a number of substantive comments were received on the Plan on which the DGEIS was based, there were no substantive comments on the DGEIS itself received during the comment period. As a result the only revisions to the Draft made for the Final are to correct typographic and format errors and to modestly update information to reflect events since August, 1993. The resulting text is reproduced as Part III of this Statement.

II. COMMENTS AND LEAD AGENCY RESPONSES

Comments on the Comprehensive Plan were received at the August 20, 1993 Public Hearing which was held on both the Plan and on the Draft Generic Environmental Impact Statement. Written comments on the Plan were also received from the Planning Board and from two individuals. The following summarizes those of the comments which were substantive and suggestive of potential revisions to the Plan, rather than being simply supportive or suggestive of post-Plan efforts, and notes the responses to them by the Lead Agency.

COMMENTS FROM THE PUBLIC HEARING

Comment: coop and condo units should be prohibited.

> Response: Multi-family dwellings, the use category intended by the comment about "coops and condos", are generally not allowed under present regulations. There are at least a half-dozen points in the Plan which would be contravened by any effort to change zoning to allow such development. Accordingly, no Plan text change was judged to be necessary.

Comment: keep out franchises.

> Response: the Economic Development chapter makes clear the kind of economic development which the Town actively seeks, which does not include franchises. On the other hand a prohibition on the franchise form of business enterprise is neither fair nor, perhaps, sustainable. The comment's spirit was right, and the Plan reflects it, albeit indirectly.

Comment: protect all fresh ponds, not just Fresh Pond.

> Response: the draft action proposals will protect ponds, but clarifying and emphasizing language was added to the text of the Natural Resources chapter under fresh water resources, since that section only spoke to groundwater, omitting mention of fresh surface water.

Comment: support home-based business.

> Response: this topic was not well enough addressed in the Draft. An item on this topic was added to "Chapter 5. Land Use" under "Improving Zoning", and another to "Chapter 10. Implementation", clarifying Town intent on this topic.

WRITTEN COMMENTS (from the Planning Board, letter of July 30, 1993 except as noted).

Comment: clarify source and meaning of water table location map (Chapter 3, page 9, comment by letter of August 20, 1993 from Howard Finkelstein, attorney for Gardiner's Bay Golf Club).

Response: The map at the end of the Natural Resources chapter was annotated to cite the source of the 1 1/2 foot contour line and clarify its meaning.

Comment: At action Z-8 investigate smaller lots by special permit for affordability.

Response: Such incentives have been incorporated as a separate item, Z-15 in the January 13, 1994 version of the Plan.

Comment: At action Z-12 clarify "Single parcel zoning".

Response: Language was revised for clarity.

Comment: At action Z-16 provide for Site Plan Review.

Response: Action Z-17 was added, committing exploration of this important tool.

Comment: Use of and parking at Town landings.

Response: Language added at Action F-3 to clarify intentions re parking.

Comment: Use and protection of beach areas.

Response: Language at Action Z-35 revised and expanded to clarify intentions.

III. REVISED GENERIC ENVIRONMENTAL IMPACT STATEMENT: SHELTER ISLAND COMPREHENSIVE PLAN

Prepared for the Comprehensive Plan Committee, Shelter Island, NY
February 7, 1994

Prepared by Philip B. Herr & Associates, 447 Centre St., Newton, MA 02158
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SUMMARY

This impact study examines the impacts likely to result from adoption of the proposed Shelter Island Comprehensive Plan. That Plan was motivated by many of the exact concerns which motivate environmental review laws, including SEQRA and the Town's review law, "Environmental Quality Review", (Chapter 60 of the Code of Shelter Island), the laws for which this study was made. In light of the consistency of motivations, it is not surprising that the impacts of Plan approval are shown to be positive on each topic examined (those identified in the scoping process): surface and groundwater, land use, open space, noise, and economics.

Rather than approving the Plan, the Town Board could disapprove it, revise and approve it, or delay taking any action at all. Based upon this review, each of those alternatives would be less beneficial to environmental concerns than would be Plan approval. Three alternatives to the set of actions proposed in the Plan have been analyzed: BASE, which is the "no action" alternative; SIZE, which would greatly increase zoning's lot area requirements; and OPEN, which would very aggressively pursue open space acquisition. SIZE and OPEN are stretched to extremes to test boundaries of credibility. Elements of each are, in less extreme fashion, in fact included in the intentions of the Plan.

Because impacts are found to be positive, no mitigations of Plan adoption are either necessary or appropriate. The Plan itself contains a large number of measures designed to mitigate the impacts of development, so that development can continue to much the same extent as if the Plan were not adopted, and still have acceptable environmental consequences.

Critical to the Plan delivering the benefits it promises will be action in carrying out its recommendations, including a large number of revisions to Town Zoning and other regulations.

1. ACTION DESCRIPTION

The action examined in this impact study is adoption of the Shelter Island Comprehensive Plan, as proposed by the Shelter Island Comprehensive Plan Committee.

Purpose, Needs, and Benefits

The purpose of the Comprehensive Plan is stated within the Plan as follows:

> "The object of the planning is to give direction to the varied actions taken by the Town and those within it bearing on growth and change: to make connections between individual actions and longer-term goals, and to provide coordination across topical areas. The Plan is not a law, but rather is a statement of policy, providing a basis for law through such separately adopted actions as zoning amendments, which are expected to follow".[1]

The need for Plan adoption is clear: it is to remedy the previous lack of coherent guidance for critical Town actions bearing on growth and development. The benefits are anticipated to be better service to the town's goals, as outlined in the Plan (Chapter 2, "Goals and Objectives", pages 1 - 3), including but not limited to concerns for water resources, open space, the social community, "rural seaside charm", and community character.

Location and Physical Dimensions

The Plan covers all of the Town of Shelter Island, which is all of the island of Shelter Island excepting the Village of Dering Harbor. The Town has an area of about 11 square miles, located between North and South Forks in the East End of Long Island in Suffolk County (see map).

Background and History

Shelter Island has had a Zoning Ordinance since 1957, and a number of planning studies have been made for the Town in the past several decades, but the Town has never before had a Comprehensive Plan seriously proposed for adoption as Town policy. In May, 1991 the Town Board appointed a Comprehensive Plan Committee, and through 1992 and 1993 intensive efforts went into preparing this Plan through a series of workshops, working committees, and assistance by a planning consultant, the County Planning Department, and a variety of State agencies. On June 24, 1993 the Comprehensive Plan Committee voted unanimously to recommend to the Town Board the draft Plan being reviewed in this Study.

The history of the SEQRA process relative to the Plan has been this.

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[1] Shelter Island Comprehensive Plan, Chapter 1, "Background", page 1.

April 3, 1992: Town Board resolution adopted directing notice be provided of Board intention to assume status of lead agency, and circulating a Full Environmental Assessment Form.

May 15, 1992: Board resolution adopted assuming lead agency status, directing that a Positive Declaration of impacts be filed with the State regarding the Plan.

July 16, 1992: Public SEQRA scoping meeting held to receive comments.

August 3, 1993: Board adopted Notice of Completion of DEIS and Notice of Hearing.

August 24, 1993: Public hearing on Draft EIS.

Timing and Schedule of Actions

It is anticipated that major actions in implementing this Plan will be taken within the twelve months immediately following its adoption, including adoption of revisions to the Zoning Ordinance for consistency with the Plan. Other actions may take several years to implement, as outlined in Chapter 10 "Implementation" of the Plan. The useful life of the Plan is presumed to be about five years, although some of the studies project as much as seventy years into the future.

Relationship to Other Plans

The intention is that the Zoning Ordinance will be made consistent with the Comprehensive Plan, as contemplated by Section 263 of Town Law. It also is intended that other Town regulations, including Subdivision Regulations, will be made consistent with the Comprehensive Plan. The Long Island Regional Planning Board is in the process of preparing a regional plan with which this Plan is apparently consistent, based upon limited information about the regional plan's provisions.

Authorizations and Approvals Required

Adoption of the Comprehensive Plan by the Town Board is a matter of local legislative discretion. No approval by other agencies is required, although review and recommendation by the Planning Board is being provided for in this case.

2. ENVIRONMENTAL SETTING

The environmental setting is described in significant detail in the "Background" section of the following chapters of the Shelter Island Comprehensive Plan:

3. Natural Resources, including surrounding waters, fresh water resources, air quality, and terrestrial and aquatic ecology;

4. Cultural Resources, including archeological and historic resources, as well as contemporary "Special Places";

5. Land Use, Zoning, and Open Space, including land use and regulatory background;

6. Housing, including housing and population;

7. Economic Development, including jobs, labor force, valuation, and taxes;

8. Transportation, including both access to the Island and circulation within it; and

9. Community Facilities, including public buildings, utilities, and solid waste.

Further description of the Environmental Setting is provided in Growth and the Comprehensive Plan, including analyses of the following:

- jobs and the labor force (page 2+);
- housing and jobs (page 3+);
- housing costs (page 3);
- other population and housing characteristics (page 4);
- water demand and supply potential (page 41);
- wastewater generation (page 41);
- nitrate concentration in groundwater (page 41);
- public school enrollment (page 41); and
- auto trip ends (page 41).

3. ENVIRONMENTAL IMPACTS

The following describes impacts of Plan approval which are anticipated within the five topical areas identified in the GEIS Scoping effort. Certain basic impacts underlie all of these topics. Based upon the analysis documented in Growth and the Comprehensive Plan, we estimate the following impacts of Plan adoption.

- Development activity. The Plan proposes protective regulation and land acquisition, which would have the effect of diminishing both the rate and ultimate amount of land development. On the other hand, the overall array of proposed actions should make the Island more, rather than less, attractive for development as a result of careful planning. Accordingly, our estimate is that there will be basically no net impact of Plan adoption on the ultimate amount of land development in Shelter Island.

  There is, however, greater assurance under the Plan that growth rate will not at any point become overwhelming, given the Plan's inclusion of a growth pacing device to be adopted should experience indicate its necessity. Accordingly, for purposes of this analysis, the "PACE" scenario in Growth and the Comprehensive Plan, which is predicated on such control, can be taken as an approximation of the development impacts expected given adoption of this Plan, with the "BASE" scenario being an approximation of the "no action" alternative. In the tables on the following two pages two other alternative scenarios are listed, "SIZE" and "OPEN". They will be discussed below.

- Population. For the same reasons, our estimate is that the build-out population of the Island will be essentially no different given Plan adoption than it would otherwise have been, either seasonally or year-round. Again, the contingency of extremely rapid population growth is substantially reduced given adoption of the Plan and its inclusion of a contingent growth pacing device.

- Employment. We have projected that employment would be a function of the level of population, so is affected little by Plan adoption.

Table 1.
BASIC SHELTER ISLAND GROWTH

	Alternative			
	BASE	SIZE	OPEN	PACE
HOUSING UNITS				
1980	1,700	1,700	1,700	1,700
1990	2,200	2,200	2,200	2,200
2000	2,600	2,550	2,550	2,450
2060	3,900	3,600	3,550	3,800
SUMMER OVERNIGHT POPULATION				
1980	7,600	7,600	7,600	7,600
1990	9,600	9,600	9,600	9,600
2000	11,100	11,000	11,000	10,500
2060	16,100	14,900	14,700	15,700
SUMMER DAYTRIPPERS				
1980	900	900	900	900
1990	1,100	1,100	1,100	1,100
2000	1,250	1,250	1,250	1,200
2060	1,800	1,650	1,650	1,750
WINTER POPULATION				
1980	2,050	2,050	2,050	2,050
1990	2,250	2,250	2,250	2,250
2000	2,650	2,600	2,600	2,500
2060	4,150	3,800	3,800	4,050
SUMMER EMPLOYMENT				
1980	1,000	1,000	1,000	1,000
1990	1,300	1,300	1,300	1,300
2000	1,600	1,600	1,600	1,500
2060	2,900	2,600	2,500	2,800
WINTER EMPLOYMENT				
1980	700	700	700	700
1990	750	750	750	750
2000	900	900	900	850
2060	1,500	1,350	1,350	1,450

Figures rounded to 50s or two figures.

Table 2.
SHELTER ISLAND GROWTH IMPACTS

	Alternative			
	BASE	SIZE	OPEN	PACE
WATER DEMAND (gallons per summer day)				
1980	750,000	750,000	750,000	750,000
1990	950,000	950,000	950,000	950,000
2000	1,090,000	1,090,000	1,090,000	1,090,000
2060	1,550,000	1,430,000	1,410,000	1,510,000
WATER SUPPLY POTENTIAL (gallons per summer day)				
1980	4,900,000	4,900,000	4,900,000	4,900,000
1990	4,500,000	4,500,000	4,500,000	4,500,000
2000	4,200,000	4,200,000	4,200,000	4,300,000
2060	3,200,000	3,400,000	3,400,000	3,200,000
WASTEWATER GENERATED (gallons per summer day)				
1980	490,000	490,000	490,000	490,000
1990	620,000	620,000	620,000	620,000
2000	720,000	720,000	720,000	680,000
2060	1,030,000	950,000	930,000	1,000,000
TOTAL NITRATE CONCENTRATION (ppm)				
1980	-	-	-	-
1990	1.9	1.9	1.9	1.9
2000	2.2	2.2	2.2	2.1
2060	3.2	2.9	2.9	3.1
PUBLIC SCHOOL ENROLLMENT				
1980	300	300	300	300
1990	250	250	250	250
2000	250	250	250	250
2060	350	350	350	360
DAILY AUTO TRIP ENDS (trip ends per summer day)				
1980	22,000	22,000	22,000	22,000
1990	28,000	28,000	28,000	28,000
2000	33,000	33,000	33,000	31,000
2060	52,000	48,000	47,000	51,000

Figures rounded to 50s or two figures.

3.1 Surface and groundwater quality

Concern over water resources is prominent among the reasons motivating the Plan. Chapter 3 of the Plan discusses the issue, and outlines actions proposed by the Plan to which surface and groundwater quality are sensitive. Growth and the Comprehensive Plan also reviews this topic, with discussion at a number of locations, including page 10.

There is a rich array of water resource protective actions proposed in the Plan. Given amounts of development the same or slightly lower given adoption of the Plan, coupled with those protective actions, it is clear that the Plan's impact on both surface water and groundwater quality is positive, not marginally, but in a major way. For example, the various stormwater management measures proposed in the Plan have the ability to hugely reduce pollutants which otherwise would find their way into coastal waters.

It is worth noting, however, that the impact of development on water quality, even given adoption of the Plan, is substantial. Nitrogen concentrations in groundwater, for example, are projected to rise from a present average level of about 1.9 parts per million to 3.1 parts per million in 2060 given Plan adoption (PACE alternative).

No other topic has had the depth of analysis which this one has been given. Note in the end reference list the number of water resource studies upon which the Plan water resource proposals are based.

3.2 Land use

This topic is discussed in the Plan at Chapter 5 "Land Use, Zoning and Open Space", and is broadly covered in Growth and the Comprehensive Plan. Again, this is one of the primary motivating topics for the Plan.

The gross dimensions of land use will be little impacted by adoption of the Plan, but in qualitative ways the impacts will be substantial, and positive. Many measures, including the open space prioritization system, density-averaging residential rules, and lowered densities for water resource-sensitive areas, for example, will collectively have substantial impact on the micro-pattern of land use, assuring that far more assuredly than otherwise, land which should be saved will be saved, and only land which is appropriate for development will be developed.

3.3 Open space

Open space, just as land use, is discussed in the Plan at Chapter 5 "Land Use, Zoning and Open Space", and is broadly covered in Growth and the Comprehensive Plan. Again, as discussed above under Land Use, adoption of the Plan is not expected to have major impact on the amount of open space reserved in the future, but it is expected to have major impact on the qualities of that open space. The locations selected should be importantly improved, and mechanisms for open space acquisition and protection should be improved.

3.4 Noise

There is large concern in Shelter Island regarding noise, principally activity noise associated with social activity, rather than traffic noise or noise from mechanical equipment. Past efforts to frame a noise control ordinance have not been successful. Adoption of the Plan would signal the intention of the Town to again attempt to find the formula for controlling noise. Adoption cannot exacerbate noise problems, and it might help ease them.

3.5 Economics

Chapter 7 of the Plan, "Economic Development", discusses this issue, which is also explored in depth in Growth and the Comprehensive Plan, especially in the "IMP" analyses starting at page 5.

Our analyses indicate no gross differences in economics between adoption of the Plan or not. However, the development activities proposed in the Plan have the potential to result in a better "fit" between the economic activity taking place on the Island and the economic interests of residents and the resident labor force, resulting not in more employment but in employment better serving those people and the community.

4. UNAVOIDABLE ADVERSE IMPACTS

We anticipate no unavoidable adverse impacts resulting from adoption of the Plan. There will, however, be unavoidable adverse impacts resulting from the development which is anticipated, whether the Plan is adopted or not. Those include the following.

- Surface and groundwater quality. Added development will inevitably add to the volumes of pollutants added to the groundwater. Of particular concern is nitrogen, because of its potential impact on both groundwater potability and, when carried into estuarine locations, its potentially eutrophying contributions.

  Our modeling indicates that current development discharges nearly 30,000 kg/year of nitrogen into groundwater through on-site disposal systems and lawn fertilization, resulting in theoretical current average nitrogen concentrations in the groundwater of 1.9 parts per million. Projected 70-year development given Plan adoption would increase loading to nearly 50,000 kg/year and concentration of 3.1 parts per million, compared with concentration of 3.2 parts per million in the no-action alternative. Those levels are less than one third the limit for SDWA potability limits.

  The likelihood of contingencies such as accidental spills also unavoidably grow with growing population and economic activity. However, even at full development, the summer population of Shelter Island is projected at under 1,400 persons per square mile, a relatively low density compared with any other area of Long Island, and given the safeguards proposed in the Plan. Shelter Island, given Plan approval, will be an area relatively secure, though not perfectly secure, from contingent damage to water resources.

- Land use. Shelter Island has less than 2,000 acres of vacant buildable land. Unavoidably, that resource will be depleted to some degree by development over time. Our modeling indicates that some land will remain even after 70 years of development, the last half of which period will see growth increasingly constrained by growing shortage of land opportunities. A legitimate concern motivating some provisions of the Plan is that some of that resource be available for later generations, and that critical parts of that resource be protected in its current undeveloped state for benefit of both Island ecology and community character.

- Open space. Shelter Island enjoys about 2,500 acres of protected open space, the largest part of which is the Mashomac Preserve. Unavoidably, the context of those open spaces will be altered as development progresses, but there is no anticipated unavoidable adverse impact within those open spaces.

  Another 2,000 acres of private land functions as open space now, even though nearly half of it has been divided into lots. That undeveloped land supports terrestrial ecosystems, contributes to viewsheds and Island character, improves water quality,

muffles noise, and serves many other functions. Unavoidably, over time that informal open space will be depleted, though the degree of depletion can be modified through public choices.

- Noise. Unavoidably, as the population grows the ambient sound level will rise. As summer population grows from under 10,000 to perhaps 16,000 persons the number of power lawn mowers, electronic entertainment systems, and boisterous parties will unalterably grow. As traffic grows from 28,000 vehicle trip ends per day to over 50,000, the amount of vehicle-related noise will unalterably grow.

- Economics. For the private economy, growth given adoption of the Plan should bring improved conditions, given targeted efforts at economic development, and a larger local marketplace, labor pool, and number of job opportunities.

  For the public economy, the basics of growth are negative. Additional development will bring additional service demands disproportionate to the addition to the tax base which that development brings. As detailed in Growth and the Comprehensive Plan, undeveloped land handsomely supports the fiscal "deficit" of homes. Development is the process of converting land from that tax-beneficial use to the tax-deficient one.

5. ALTERNATIVES TO PROPOSED ACTION

The basic alternatives available to the Town Board relative to adoption of the Comprehensive Plan are these.

1. The Board could approve the Plan with no more than minor modifications, in which event it is reasonable to expect that the implementing measures will largely be taken over the next half-decade, principally within the next year.

2. The Board could disapprove the Plan, which could have several possible outcomes.

   - The Comprehensive Plan Committee might again take up the task of preparing an acceptable Plan, might resubmit it, and the Town Board might then approve it. There is, however, no assurance that this would be the case. Experience of other places is that such "second success" is unusual.

   - The Comprehensive Plan Committee might not resubmit, or the Town Board might not accept that which is resubmitted. While it is possible that much if not all of that which is recommended in the Plan would never-the-less be accomplished, that is unlikely, since the acceptance failure would most likely be based upon some substantive grounds.

3. The Board could modify and then approve the Plan. There are a number of basic alternative modifications which it could make, to be discussed below.

4. The Board could take no action on the Plan pending further consideration. This is a very common outcome for planning efforts, and quite possibly is more destructive to the planning effort than any of the other alternatives.

For purposes of analysis, we have framed four alternative scenarios, any one of which conceivably could be adopted by the Town Board in modifying and approving the Plan. These are the alternatives, together with a summary evaluation of them. They are further discussed in Growth and the Comprehensive Plan beginning at page 6.

BASE.

This is the "no-action" alternative. This is what can be expected, given no action on the Plan proposal. It describes quantitatively the future which this planning is attempting to avoid.

SIZE.

This alternative explores major zoning change to increase lot area requirements, lowering development density, growth rate, and ultimate build-out population. The

impact on dwelling unit production and population is relatively small, chiefly because of the extent to which "grandfathering" through previous lot divisions fixes the future. Summer 2060 overnight population, for example, is lowered only from 16,100 persons in the BASE case to 14,900 in the SIZE case.

A substantial "price" is paid for that marginal reduction. The lot size requirements would effectively mandate sprawl. Those requirements would require future development to follow a pattern inconsistent with existing development. Implementing this alternative would raise major issues of equity with regard to land owners. It would occasion severe political strain, especially since it runs counter to the directions which a sound participatory process has suggested.

OPEN.

This alternative explores major efforts at securing open space, lowering growth rate marginally and lowering ultimate build-out population and land consumption. Again, the impacts in terms of quantities of development are small. Summer 2060 population would be 14,700 persons under this alternative, compared with 16,100 in the BASE case.

Some concern has been expressed about the impacts of this alternative on the economy, on two grounds. First, taking open space would reduce construction, the mainstay of the year-round economy. While that assertion is true to a degree, that impact is very small, a difference of 350 housing units over a 70 year period, or 5 houses per year. Second, concern has been expressed open space reservation results in removal of land from the tax rolls. Again that assertion is true, but the impact is very minor, largely made up for in time by the enhanced value of development benefitted by the open space reservation.

The largest negative about this alternative is the financial difficulty of funding that much acquisition: about 500 acres of prime buildable land. Clearly the Town's resources could not support such expenditure (on the order of $50 million).

All non-financial impacts of this alternative are positive, such as reduction of damage to existing ecosystems, water resources, ambient noise, and traffic.

PACE.

This alternative best describes the proposals of the Plan, including use of a growth pacing device, from which the alternative takes its name. It illustrates analytically the results of planning for the same ultimate amount of development as in the BASE scenario, but managing the rate over time at which that development occurs. The quantitative impacts are largest in about the year 2020, when development would have been lowered by about 500 housing units below that otherwise expected. After that, development would start to "catch up" with the BASE projections.

The real Plan proposal is incompletely illustrated by PACE, since the Plan also includes some of the density reductions illustrated at an extreme by SIZE, and some of the open space acquisition illustrated at an extreme by OPEN. Choosing to approve the Plan as proposed includes choosing to include modest amounts of the efforts described in SIZE and OPEN, at a politically and economically feasible level.

6. IRREVERSIBLE RESOURCE COMMITMENTS

The approval of the Plan involves no irreversible resource commitments, but the development which that Plan anticipates does so. Most critical is land resource commitment.

As is made clear in the LAND modeling discussed in Growth and the Comprehensive Plan, development will over time consume most of the 2,000 or so available acres of now-undeveloped land on Shelter Island. That is irreversible. The extreme alternative of the OPEN scenario reduces land consumption by about 500 acres.

Use of "density averaging" approaches to residential development could in effect reduce land consumption, by retaining relatively large portions of developments in an unaltered or minimally-altered state. However, the impact of density-averaging quantitatively will not be large, since only relatively large parcels will yield significant open space, and large parcels are a small part of the Shelter Island land inventory.

7. MITIGATION MEASURES

All of the impacts of Plan adoption have earlier been described as positive (see part 3 Environmental Impacts). Therefore no mitigation of impacts of Plan adoption is seen as being necessary. However, it also has been pointed out that there are undesirable environmental impacts likely to result from development, even given Plan adoption. Accordingly, public action to mitigate those negative impacts are appropriate. These are among the mitigating actions proposed within the Plan itself to deal with unavoidable adverse impacts (outlined in part 4 of this report) and irreversible resource commitments (part 6 of this report). Numbers refer to chapter and page in the January 13, 1994 version of the Plan, e.g. (3-7) refers to page 4 of chapter 3.

Ground and surface water quality.

- Stormwater management regulations (3-7).
- Anchorage management (3-7).
- Wetlands protection (3-7).
- Aquifer protection rules (3-8).
- Special rules for areas of shallow groundwater (3-8, 5-16).
- Vegetative filter/buffer strips (3-8).
- Fertilizer best management practices (3-8).
- Budget support for CAC and WMAC (3-8).
- Explore recharging Heights sewage effluent (9-30).
- Wellhead protection zoning (9-30).

Land use.

- Avoidance of invasive exotic plants (3-8).
- Use of preservation easements (4-12).
- Constraint-based zoning rules (5-16).
- Growth pacing device (5-16).
- Special rules for areas of shallow groundwater (3-8, 5-16).
- Business zoning review (5-16).
- "Density-averaging" rules (5-16).

Open space.

- Wetlands protection (3-7).
- Beach access control (3-7).
- Habitat rules in zoning (3-8).
- Inventory & prioritization system (5-15).
- Open space tool exploration (5-15).
- Stronger open space rules for subdivisions (5-15).
- Right of first refusal for semi-public lands (5-16).

- Non-profit land trust (5-16).
- Growth pacing device (5-16).

Noise.

- Develop noise control mechanism (10-34).

Economics.

- Affordable housing support (6-20).
- Better rules re second units in and beyond RC district (6-21).
- Remove obstacles to desired business types (7-24).
- Analyze public service cost-effectiveness (7-24).
- Address long lines waiting for ferries (8-27).

8. GROWTH INDUCEMENT

The overall array of actions proposed in the Plan should make Shelter Island more, rather than less, attractive for development as a result of careful planning, thus tending to induce growth. On the other hand, the Plan proposes protective regulation and land acquisition, which has the effect of diminishing both the rate and ultimate amount of land development. Accordingly, our estimate is that there will be basically no net growth inducement resulting from Plan adoption. This estimate is supported by the extensive analyses of Growth and the Comprehensive Plan.

9. ENERGY USE AND CONSERVATION

Impacts of Plan approval on energy use and conservation will be to reduce use and promote conservation, though those impacts will be small. The following are among the ways in which the proposals of the Plan will lead to energy conservation.

Transportation.

- Promoting use of transport modes supplemental to the individual automobile, including jitney, bicycle, etc. (8-26).
- Bike path study, promoting bicycle use not only for Islanders but for transients (8-26).
- Revisions to road specifications to require less energy-intensive road construction standards (8-27).
- Seeking to reduce long ferry lines of idling cars (8-27).

Land Use.

- Review of business zoning for suitability (5-16).
- "Density averaging" allowing potentially more compact development configurations, promoting more efficient transport (5-16).
- Continued support for zoning generously allowing home-based economic activity (5-16).
- Economic development activities reducing reliance on off-island employment (7-23,24).

10. SOLID WASTE MANAGEMENT

With little impact on population or employment anticipated as a result of Plan adoption, little impact on solid waste generation can be expected. To a minor degree, Plan proposals such as "density averaging" may result in slightly more compact site design, marginally reducing volumes of development-related solid waste generation.

The Town's commitment to resolution of its solid waste management needs is marginally strengthened by the Plan, which reiterates that commitment (9-30).

11. STUDY REFERENCES

Carpinello, George F., SEQRA and Local Land Use Decision Making: the Lessons from Other States, prepared for the Legislative Commission on Rural Resources - Land Use Advisory Committee, Government Law Center of Albany Law School, August, 1991.

Center for Community Research at the Suffolk County Community College, Study of East End Attitudes and Lifestyles, April, 1993.

Dvirka and Bartilucci, "Town of Shelter Island Solid Waste Management Plan Draft Generic Environmental Impact Statement", October, Syosset, 1990.

Eastin, Rene, "Survey of the Groundwater Situation", for the Town of Shelter Island, April 20, 1991.

General Code Publishers Corp, Code of the Town of Shelter Island, County of Suffolk, State of New York, updated through 6-92.

Guerrera, August, "Request for Consideration of Amendment of SCDHS Standards and Procedures for Private Well Systems", April, 1990.

Philip B. Herr & Associates, Growth and the Comprehensive Plan, prepared for the Comprehensive Plan Committee, Shelter Island, NY, July 2, 1993. Herr Associates, Newton, MA.

Simmons, Dale, "Geohydrology and Ground-Water Quality on Shelter Island", USGS Water-Resources Investigations report 85-4165. In cooperation with the Town of Shelter Island, 1986.

Soren, Julian, "Hydrogeologic Conditions in the Town of Shelter Island", USGS Water Resources Investigations 77-77. In cooperation with the Suffolk County DEC, 1978.

Suffolk County Inter-Agency Coordinating Council, The East End Experience: A Resource Data Handbook, April, 1992.

Suffolk County Planning Department, Town of Shelter Island Planning, Environmental Investigations and Analysis, March, 1986.

Town of Shelter Island Comprehensive Plan Committee, Shelter Island Comprehensive Plan, June 11, 1993, as revised [to be noted].

Town of Shelter Island, "Highway Specifications", as amended August 16, 1977.

Town of Shelter Island, "State Environmental Quality Review Act: Findings Statement;

Town of Shelter Island Solid Waste Management Plan Generic Environmental Impact Statement", February, 1991.

Weaver, Muriel Porter, Where They Go By Water, The Nature Conservancy, 1990.

Witek, John C., "An Outline of the Aboriginal Archaeology of Shelter Island, New York", pages 39 - 57, Bulletin of the Archaeological Society of Connecticut, Number 53, 1990.

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