

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
INTRODUCTION	3
THE VISION	3
Gainesville's Green Network	3
Trees and Creeks	4
Restoration and Preservation of the Green Network	5
Trees & Tree-Lined Streets	7
Urban Forest Protections and Restoration Objectives	12
Creeks	13
Open Space	13
Identification of Environmentally Significant Open Space	14
Regulation of Environmentally Significant Open Space	16
Environmental Management of Public Parks & Open Space	17
Acquisition of Environmentally Significant Open Space	19
GAINESVILLE'S NATURAL ENVIRONMENT: THE COMPONENTS	21
GROUNDWATER	21
Physical Geography	21
Inventory of Groundwater	22
Surficial Zone	22
Intermediate Zone	23
Floridan Zone	23
Major Natural Groundwater Recharge Areas	26
Artificial Recharge	29
Movement of Groundwater in Floridan Aquifer System	30
Supply and Conservation of Groundwater	31
Use of Floridan Groundwater	34
Assessment of Groundwater Quality	37
Functions of Aquifer Systems	40
Strengths & Deficiencies of Existing Regulations & Programs in Maintaining the Natural Functions of the Floridan Aquifer	41
Potential for Conservation, Use or Protection	45
Existing and Recommended Conservation Strategies	45
SURFACE WATERS AND WETLANDS	47
Inventory of Surface Waters and Wetlands	47
Wetlands	51
Assessment of Surface Water Quality	54
Functions of Surface Waters	58
Existing and Potential Commercial and Recreational Uses	59
Existing and Recommended Conservation Strategies	60
PLANTS, ANIMALS, AND THEIR HABITATS	61
Inventory & Problems Regarding Plants, Animals	61
Vacant Lands Inventory/Environmental Regulations Update	70
Functions of Plants and Animals	70
Existing & Potential Commercial, Recreational Uses	71
Potential for Conservation, Use or Protection	72
Existing and Recommended Conservation Strategies	75
AIR	76
Inventory of Air Quality	76
Indoor Air Pollution	81

	page
Functions of Healthy Air Quality	84
Existing and Recommended Conservation Strategies	85
SOILS AND MINERALS.....	85
Inventory of Soils.....	85
Functions of Soils	88
Soil Limitations	89
Inventory of Minerals.....	91
Existing & Potential Commercial, Recreational Uses of Minerals	91
Potential for Conservation, Use or Protection of Minerals.....	91
Potential for Conservation, Use or Protection of Soils.....	91
Existing and Recommended Conservation Strategies	93
OPEN SPACE.....	93
Inventory of Open Space.....	93
Existing & Potential Commercial, Recreational Uses	94
Potential for Conservation, Use or Protection	95
POINT SOURCES OF POLLUTION.....	98
ENVIRONMENTAL QUALITY MONITORING PROGRAM	101
HAZARDOUS WASTES.....	101
ECONOMIC COSTS OF DAMAGE TO GAINESVILLE'S NATURAL ENVIRONMENT.....	103
APPENDIX	
DEFINITIONS.....	A-2
TABLE 3	A-6
TABLE 4	A-7
TABLE 5	A-22
TABLE 7	A-24
TABLE 8... ..	A-27
VACANT LANDS INVENTORY REPORT	A-33
BIBLIOGRAPHY.....	B-1

LIST OF TABLES

	Page
Table 1. Projected Demand for Potable Water from Murphree Wellfield.....	36
Table 2. Inventory of Creeks, Lakes and Wetlands	78
Table 3. Basin-By-Basin Surface Water Inventory Within the GUA	A-6
Table 4. Special Protection Species of Alachua County	A-7
Table 5. Catalog of Ecological Communities by Site Location	A-22
Table 6. Hazardous Waste from Large Quantity Generators	102
Table 7. Park Inventory.....	A-24
Table 8. Invasive Exotics	A-30

LIST OF MAPS

		Page
Map 1.	Creek Segments That May Be in Need of Restoration	6
Map 2a.	Green Network :Environmental Overlay	9
Map 2b.	Green Network: Trail Network.....	10
Map 2c.	Green Network: Parks, Agriculture and Vacant Lands.....	11
Map 3.	Floridan Aquifer System: Degree of Confinement.....	25
Map 4.	Environmentally Significant Land and Resources: Floridan Aquifer Recharge.....	28
Map 5.	Community Wellfield.....	35
Map 6.	Environmentally Significant Land and Resources: Creeks, Lakes and Wetlands	49
Map 7.	Water Basins	50
Map 8.	Potential and Known Point Source Pollution Problems.....	57
Map 9.	Ecological Inventory: Ecological Inventory Site Boundaries	68
Map 10.	Significant Ecological Communities.....	69
Map 11.	Significant Flora and Fauna: Rare and Endangered Species Survey	74
Map 12.	General Soil Associations	87
Map 13.	Urban Soil Limitations.....	90
Map 14.	Commercial Excavation Sites.....	92
Map 15.	100-Year Floodplain.....	96
Map 16.	Abandoned Dumps and Known and Potential Hazardous Waste Sites.....	100
Figure 1.	Project Parcels	B-21
Figure 2.	Ranking Scores of Project Parcels.....	B-22
Figure 3.	Water Quality and Creek Connections.....	B-23
Figure 4.	Connectivity to Conservation Areas.....	B-24
Figure 5.	Rare and Exemplary Natural Communities	B-25