Appendix 1. GREENHOUSE GAS REDUCTION LOCAL ACTION PLAN FOR ALACHUA COUNTY GOVERNMENT

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and
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A. FOCUS AREA---TRANSPORTATION

Baseline Data (1990) County Operations: CO_2 gas emissions = 2470 Tons/Year

Baseline Data (1998) County Operations: Vehicle Miles Traveled (VMT) = 9773 Miles/Day; CO_2 gas emissions = 3088 Tons/Year

General Goal Specific Action Item	***Estimated CO2 Reduction by 2010***	***Lead Unit (s),*** Other Operating Units Involved in Implementation of Action Item	**Minimum Data Needed to Document GHG reduction**	**Proposed Data Collection Procedures**
1. Reduce Total County Vehicle Miles Traveled			• Total VMT for all County Vehicles	• Data from Fleet Management acquired or submitted to Air Quality Engineer
a) Review policy, procedures and current vehicle assignments to reduce non- essential usage of County vehicles(such as a policy on take home vehicles)	***50 Tons***	***Take Home Policy Team,*** County Administration, All Departments	• Mileage reduced • Type of vehicle involved • Type of fuel used	• Questionnaire sent to Department Directors. • (Or information obtained from Fleet Management) • Data forwarded to Air Quality Engineer.
b) Develop procedures and/or policies to promote and implement video and/or audio teleconferencing for meetings.	***6 Tons***	***Information Services*** All Departments, County Administration, Facilities Management, Employees	• Number of teleconferences conducted per quarter • Number of attendees in remote locations • Estimated distance to remote location for each attendee.	• Data tracking form or questionnaire developed by Sustainability Team and Air Quality Engineer • Data tracking form filled out by meeting chairman. • Form forwarded to Air Quality Engineer by departments.

General Goal Specific Action Item	***Estimated CO2 Reduction by 2010***	***Lead Unit (s),*** Other Operating Units Involved in Implementation of Action Item	**Minimum Data Needed to Document GHG reduction**	**Proposed Data Collection Procedures**
c) Increase use of car-pooling and vehicle sharing by County employees for County business. Consider guidance memo or policy by County Administration. Implement telecommuting policy to allow work at home.	***25 Tons***	***Department Directors*** County Administration, Employees	• Vehicle Miles traveled • Number of People in Pool • Type of vehicle used	• Sustainability Team and air quality engineer to develop vehicle log to be used by departments to include indication of number of people in vehicle per trip and whether this is a car pool trip. • Car pool critical data forwarded to Air Quality Engineer.
d) Encourage greater usage of bicycles for employee commutes to work. Consider improvements in bicycle infrastructure such as providing secure, covered bicycle parking to encourage greater use of bicycles.	***29 Tons***	***Facilities Management, County Administration, Employees***	• Number of employee bike commutes per month • Distance for each commute • Type of vehicle used if not using bicycle.	• Employee questionnaire sent out requesting information on bike trips and distance • Data forwarded to Air Quality Engineer
e) Promote use of mass transit by County employees for commute to and from work by providing free bus passes for County employees.	***157 Tons***	***County Administration*** Employees	• Number of employees using mass transit • Number of round trips per month • Miles Traveled • Type of vehicle formerly used.	• Employee questionnaire sent out by Air Quality Engineer • Data forwarded to Air Quality Engineer
2. Increase fuel efficiency and reduce GHG emissions of County fleet.		***Fleet Management***	• Average Miles per gallon of County Fleet	• Data from Fleet Management to Air Quality Engineer

General Goal Specific Action Item	***Estimated CO2 Reduction by 2010***	***Lead Unit (s),*** Other Operating Units Involved in Implementation of Action Item	**Minimum Data Needed to Document GHG reduction**	**Proposed Data Collection Procedures**
a) Purchase hybrid and alternative fuel vehicles for replacement and new passenger vehicles	***76 Tons***	***Fleet Management,*** Department Directors	• Number of hybrid vehicles purchased • Number of alternate fuel vehicles purchased • Average annual vehicle miles traveled for replaced or typical non- fuel-efficient vehicle. • Fuel type and average vehicle fuel efficiency for old and new vehicle.	• Fleet management to maintain records of number and type of new vehicles, type of vehicle replaced and average fuel efficiency. • Data transmitted to or acquired by Air Quality Engineer annually.
b) Purchase more fuel-efficient replacement or new heavy vehicles (vans, trucks, heavy trucks, emergency vehicles) that meet departmental needs. Expedite replacement policy for older fuel inefficient vehicles	***324 Tons***	***Fleet Management,*** Department Directors	• Number of new vehicles purchased • Average annual vehicle miles traveled for replaced or typical non- fuel-efficient vehicle. • Fuel type and average vehicle fuel efficiency for old and new vehicle.	• Fleet management to maintain records of number and type of new vehicles, type of vehicle replaced and average fuel efficiency. • Data transmitted to or acquired by Air Quality Engineer annually.
c) Replace non-road vehicles and mobile equipment with low or non-CO2 generating technologies, such as electric vehicles.	***20 Tons***	***Fleet Management,*** Department Directors	• Number of new no CO2 or low CO2 vehicles and equipment • Type of vehicle replaced	• Fleet management to maintain records of number and type of new vehicles, type of vehicle replaced and average fuel efficiency. • Data transmitted to or acquired by Air Quality Engineer annually.

General Goal Specific Action Item	***Estimated CO2 Reduction by 2010***	***Lead Unit (s),*** Other Operating Units Involved in Implementation of Action Item	**Minimum Data Needed to Document GHG reduction**	**Proposed Data Collection Procedures**
3. Coordinate and collaborate with the University of Florida, the City of Gainesville, and other Alachua County municipalities and community groups to promote transportation initiatives to reduce vehicle miles traveled and GHG generation.		***Environmental Protection,*** County Commission, County Manager, City of Gainesville University of Florida Municipalities Community	• Track the impact on vehicle miles traveled of jointly coordinated projects or programs.	• Air Quality Engineer to coordinate with all parties.

B. FOCUS AREA-- ENERGY

Baseline Data (1990) County Operations: **:** CO_2 gas emissions =15,818 Tons / Yr

Baseline Data (1998) County Operations: **:** Energy Usage = 93,833 MMBtu/ Yr ; CO_2 gas emissions =14,422 Tons/ Yr

General Goal Specific Action Item	***Estimated CO2 reduction by 2010***	***Lead Unit(s),*** Other Operating Units Involved in Implementation	**Minimum Data Needed to Document GHG reduction**	**Proposed Data Collection Procedure**
1. Reduce energy usage of County owned facilities		***Facilities Management***	• Electricity and natural gas usage for each county building	• Facilities Management to collect and tabulate energy usage information and forward to Air Quality Engineer.
a) Implement plan to achieve BoCC goal of reducing County building energy usage by 33.3% over the next five years: • Implement energy conserving system upgrades to existing county owned buildings to reduce energy consumption. • Provide energy efficient lighting upgrades in buildings. • Provide energy efficient upgrades to HVAC systems • Replace old equipment with Energy Star rated energy efficient products.	***1730 Tons***	***Facilities Management***, Purchasing, Departments, County Administration	• Number of units/equipment replaced or upgraded. • Type of equipment upgraded • Average energy usage in watts or other energy usage measure of old equipment • Average energy usage in watts or other energy usage measure of new equipment. • Average or estimated annual usage of equipment replaced • Size of building –Sq. Ft.	• Facilities Management to maintain records of critical data for each upgrade or replacement. • Data transmitted to or acquired by Air Quality Engineer .
b) Convert streetlights to low energy usage units and traffic signals to Light Emitting Diodes (LED).	***7 Tons***	***Public Works***	• Number of lights replaced • Average energy usage in watts per replaced light • Average energy usage in watts of new LED light • Average hours of annual usage	• Public Works to maintain critical data records • Data transmitted to or acquired by Air Quality Engineer.

General Goal Specific Action Item	**Estimated CO2 reduction by 2010**	***Lead Unit*** Other Operating Units Involved in Implementation	**Minimum Data Needed to Document GHG reduction**	**Proposed Data Collection Procedure**
2. Develop Waste to Energy Conversion Initiatives				
(a) Develop project to convert landfill gas (methane flaring) to electricity generation at the old Southwest Landfill. *(note this reduction is not sustainable over the long term since landfill gas will diminish with time.)*	*7811 Tons*	***Public Works,*** Gainesville Regional Utilities	• Average annual tons of methane gas currently flared at landfill • Energy in kW of electricity produced by on-site generators. • Average coal usage per kW of energy produced by GRU.	• Methane gas calculations and data to be provide by Public Works to Air Quality Engineer • Power generation and coal usage information provided by GRU to Air Quality Engineer.
3. Coordinate with and promote GHG reduction and energy conservation actions such as improvements in emissions, reduction in distribution line losses and other operational changes with Florida Power, University of Florida , City of Gainesville, other Alachua County municipalities and community groups		***Environmental Protection,*** County Commission, County Manager, City of Gainesville University of Florida Municipalities Community	• Track the impact of implemented GHG reduction initiatives developed	• Air Quality Engineer to coordinate with all parties.

C. FOCUS AREA-- WASTE REDUCTION AND RECYCLING:

Baseline Data (1990) County: CO_2 gas emissions = 25 Tons/ Yr

Baseline Data (1998) County: Waste generated = 38 Tons/ Yr, CO_2 gas emissions = 17 Tons/ Yr

General Goal Specific Action Item	***Estimated CO2 reduction by 2010***	***Lead Unit(s),*** Other Operating Units Involved in Implementation	**Minimum Data Needed to Document GHG reduction**	**Proposed Data Collection Procedure**
1) Reduce solid and hazardous waste disposal and increase recycling practices at all County Facilities.	***5 Tons***	***Public Works/ Solid Waste ,Environmental Protection***	• Tons of solid and hazardous waste recycled annually in County	• Public Works and Household Hazardous Waste Coordinator to acquire critical data and transmit to Air Quality Engineer
a) Require county departments to participate in established recycling programs—office recycling, cardboard, appliances.		***Public Works/ Solid Waste, Purchasing***	• Tons of solid waste reduced by vendors and contractors.	• Public Works to acquire critical data and transmit to Air Quality Engineer
(b) Develop and implement a County Parks recycling program.		***Public Works/ Solid Waste***	• Tons of solid waste recycled at County Parks.	• Public Works or Parks to acquire critical data and transmit to Air Quality Engineer
c) Develop and implement an on-line waste exchange for County operations to reduce volume of discarded wastes.		***Public Works/Solid Waste***	• Tons of solid waste recycled or diverted from landfills by waste exchange.	• Public Works to acquire critical data and transmit to Air Quality Engineer
2. Coordinate with and promote solid waste reduction initiatives with the University of Florida, the City of Gainesville, other Alachua County municipalities and community groups to reduce GHG generation.		***Environmental Protection, Solid Waste Recycling Coordinator*** County Commission, County Manager, City of Gainesville University of Florida Municipalities Community	• Tons of solid waste recycled or reduced by initiative	• Air Quality Engineer, Recycling Coordinator and Household Hazardous Waste Coordinator to coordinate with all parties.

D. FOCUS AREA—VEGETATION

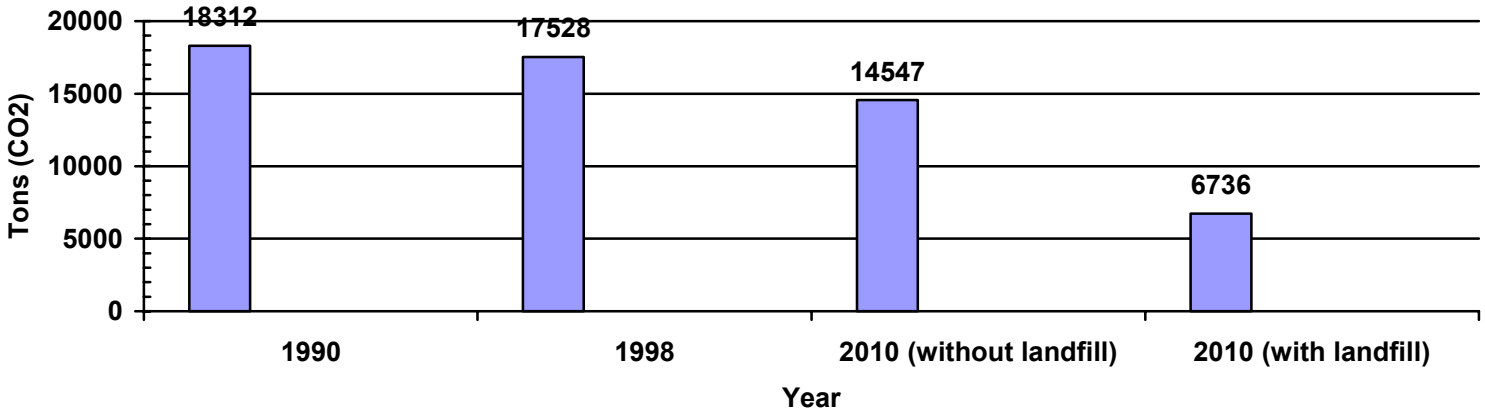
No baseline data available for this focus area.

General Goal Specific Action Item	***Estimated CO2 reduction by 2010***	***Lead Unit(s)*** Other Operating Units Involved in Implementation	**Minimum Data Needed to Document GHG reduction**	**Proposed Data Collection Procedure**
1. Promote tree-planting programs, maintenance of existing trees in the County and on County facilities, to achieve maximum benefits in carbon offsets, energy conservation, and air quality.	***175 Tons***	***Public Works/Parks*** Environmental Protection Growth Management	• Acreage of trees and type of trees on County owned land • Acreage of trees and type of trees in entire County.	• Public Works/Parks to maintain critical data and transmit to Air Quality Engineer annually. • (Or, Estimate acreage from maps)
a) Develop proactive programs to plant new trees.		***Public Works/Parks***, Environmental Protection	• Number of new trees planted, or • Acres of new trees planted and type of Trees planted.	• Public Works/Parks to maintain critical data and transmit to Air Quality Engineer annually.
2. Implement "Alachua County Forever" land preservation program in County.	***372 Tons***	***Environmental Protection***	• Acreage, type of woodlands and vegetation acquired annually.	• Environmental Protection to acquire critical data and transmit to Air Quality Engineer quarterly.
3. Coordinate with and promote tree-planting efforts with the City of Gainesville, the University of Florida, other municipalities in Alachua County and community groups.		***Environmental Protection*** County Commission, County Manager, City of Gainesville University of Florida Municipalities Community	• Number of new trees planted, or • Acres of new trees planted. • Types of new trees planted	• Air Quality Engineer to coordinate with all parties.

E. FOCUS AREA-- PURCHASING:
No baseline data available for this focus area.

General Goal Specific Action Item	***Estimated CO2 reduction by 2010***	***Lead Unit (s),*** Other Operating Units Involved in Implementation	**Minimum Data Needed to Document GHG reduction**	**Proposed Data Collection Procedure**
1. Increase purchase of environmentally preferable products for County Operations.	***Approx. 5 Tons***			
a) Promote purchasing of recycled products. Investigate purchase of recycled-content products such as recycled anti-freeze, recycled latex paint, and paper with 30% post-consumer recycled content paper		***Purchasing , Solid Waste/Recycling Coordinator, Department Directors, Employees***	• Tons of recycled material purchased. • Type of recycled material purchased. • Percent composition of waste reduced, recycled or composted.	• Questionnaire developed by Sustainability Team and Air Quality Engineer sent to departments asking for amount of recycled material purchased.
b) Develop and implement a sustainable and green purchasing policy.		***Purchasing***	• Implemented policy	• None
2. Coordinate and collaborate with the City of Gainesville, the University of Florida, other municipalities in Alachua County and community groups to promote and implement increased purchasing of recycled products		***Environmental Protection,*** County Commission, County Manager, City of Gainesville University of Florida Municipalities Community	• Tons of recycled material purchased. • Type of recycled material purchased. • Percent composition of waste reduced, recycled or composted.	• Air Quality Engineer to coordinate with responsible parties.

Baseline and Projected GHG Emissions



% REDUCTION 1990 vs 2010 = <u>63%</u>
(% REDUCTION 1998 vs 2010 = 61%)
% REDUCTION 1990 vs 2010 (w/o landfill gas conversion) = <u>20%</u>
(% REDUCTION 1998 vs 2010 (w/o landfill gas conversion) = 17%)

Action Item	Reduction (Tons CO2) from 1998 Levels W/Landfill Gas Conversion
A1a) Reduce non essential vehicle travel	50
1 b) Teleconferencing	6
1c) Carpooling	25
1d) Bicycling	29
1e) Bus Riding	157
2a) Hybrids	76
2b) Efficient heavy vehicles	324
2c) Non-C02 vehicles	20
B 1a) County building energy reduction*	1730
1b) Streetlight conversion	7
2a) Landfill Gas to Energy Conversion	7811
C 1a) Reduce solid and hazwaste disposal	5
D 1. Increase number of trees	175
2. Land preservation	372
E. 1. Environmentally preferable purchasing	5
TOTAL	10,792

* Assumes addition of New County Courthouse Building